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# Connecting Genre-Based and Corpus-Driven Approaches in Research Articles: A Comparative Study of Moves and Lexical Bundles in Saudi and International Journals

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DISSERTATION

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## DEDICATION

This is dedicated to my father and mother, my brother and sisters, and to all those who

believe in me and inspired my academic willingness, passion, and endeavor ...!

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## ABSTRACT

Research articles (RAs) have become the primary channel for researchers to circulate academic knowledge within certain discourse communities. Writing an acceptable research paper for publication in a scholarly journal is challenging for novice writers, especially for nonnative speakers of English. The present study was pedagogically motivated, and the ultimate goal was to provide the basis for a genre approach and corpus linguistics to academic writing for ESL/EFL postgraduate students in the field of applied linguistics.

The study analyzed the rhetorical structure and lexical bundles of English-language RAs—Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C)—sections published in Saudi Arabian and international journals in the field of applied linguistics by implementing genre-based and corpus-driven approaches. First, the move

structures of RAs were identified by using a genre-based approach, while different RA sections were analyzed by different models: Introduction: Swales (2004), Methods: Peacock (2011), Results-Discussion-Conclusion sections: Ruiying and Allison (2003). Next, the corpus-driven approach was applied to identify and analyze lexical bundles associated with each identified move in each IMRDC section, based on structural (Biber, Johansson, Leech, Conrad & Finegan, 1999) and functional taxonomies (Hyland, 2008c).

The major study findings were the similarities and discrepancies between both corpora regarding rhetorical structures, suggesting that cross-cultural variances do exist in academic writing. The Introduction, Discussion, and Conclusion sections were quite similar in both corpora, in which all moves appeared with a similar degree of frequency. However, the Methods and Results sections showed noticeable differences. Furthermore, the analysis of lexical bundles revealed that some rhetorical moves incorporated more lexical bundles compared with other moves. More lexical bundles were identified in each section of the RAs from the Saudi corpus than in those from the international corpus.

The results of the present study provide insight into the importance of the awareness of genre conventions and how lexical bundles are utilized in RAs. This awareness could help graduate students and novice writers to achieve greater success in producing publishable research articles. The present study explores the pedagogical implications of a syllabus that incorporates the findings of both approaches examined in the study.

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# CHAPTER 1

# INTRODUCTION

The present study explored rhetorical variations and lexical bundles in English-language research articles published in Saudi Arabian and international journals in the field of applied linguistics. This introductory chapter provides the background of the study, the statement of the problem, the purpose of the study, the scope of the study, and the limitations of the study.

## Background of the study

A research article (RA) is a genre in academic writing; it is a medium in which to disseminate information and knowledge and to engage in discourse with the academic community (Flowerdew, 2005; Kanoksilapatham, 2003; Musa, Khamis, & Zanariah, 2015). Swales (1990) defined an RA as a written text limited to a few thousand words that presents the findings of an investigation carried out by its author(s). Importantly, all members of academia (i.e., students, researchers, and faculty members) have to adhere a certain standards of written discourse regarding in their published research to be recognized as professional and active members in their disciplines. Research articles may be the most important genre that the researchers must master. RAs also are essential for the advancement of a scholar's professional standing, as they serve as an indicator of academic attainment. Swales (1990) emphasized, "publication is the major route to tenure, promotion, research grants and so on" (p. 95).

Nonetheless, writing a research paper is a daunting task for both native and nonnative speakers of English, especially novice writers. They need to be aware of both rhetorical organization and linguistic features associated with the research articles in their

respective fields (Dobakhti, 2011; Kanoksilapatham, 2003). In particular, the writers need to be familiar with the norms and conventions of their discourse community to establish the importance of their research and to show that their study is worthy of attention. According to Dobakhti (2011), since writing is a socially situated practice that is purposeful and is undertaken for an audience in the discourse community (Candlin, 2000; Hüttner, Smit, & Mehlmauer-Larcher, 2009), the members of the discourse community may question or reject authors' claims at any stage if the authors do not meet the expectations of their discourse community (Hyland, 2000). The writers need to apply the norms and conventions of their discourse community in their writing to be able to negotiate with their discourse community members and to persuade them to accept their knowledge (Dobakhti, 2011).

In recent years, there has been a growing body of literature in academic writing that focuses primarily on explaining, comparing, and contrasting discourse and rhetorical patterns of academic writing in different academic fields, languages, and cultures (See Alharbi & Swales, 2011; Hirano, 2009; Jogthong, 2001). Obviously, there are many variations in academic writing styles and conventions across academic fields and in different languages and cultures. Because of the difficulties that nonnative English speakers encounter in dealing with academic discourse, better approaches to teaching academic writing for academic publication are needed. Among these approaches is genre-based pedagogy, which refers to the teaching of academic writing in terms of macrostructures and the rhetorical organization of texts (Dudley-Evans, 1994; Leki, 1991; Swales, 1990). Over the past few decades, the genre-based approach to writing

instruction has become "the main institutionalized alternative to process pedagogy" (Atkinson, 2003, p. 11; Cheng, 2006; Hyland, 2002; Hyon, 1996; Johns, 2001).

RAs, the essential genre of knowledge production in academic discourse, have received extensive attention in genre analysis studies, especially from scholars in the field of second language writing. *Move* (M) variations in text structure play a vital role in determining which RAs get published in international journals (Fazilatfar & Naseri, 2014). A *move* variation is "a unit that relates to both the writer's purpose and the content that s/he wishes to communicate" (Dudley-Evans & John, 1998, p. 89). To examine move variations, English for Specific Purposes (ESP) genre analysis of RAs has been implemented in various disciplines to explore both the discourse structure of several sections in RAs and patterns of the use of linguistic features. Multiple models and frameworks have been proposed by scholars, experts, and researchers to analyze and describe the schematic structure of RAs (i.e., abstracts, introductions, literature review, methods, results, discussion, and conclusion). The following researchers—Bhatia (1993), Hopkins and Dudley-Evans (1988), Hyland (2000), Nwogu (1997), Lim (2006), Ruiying and Allison (2003), and Swales (1990)—all make extensive use of one or more of the models that are discussed in Chapter Two.

In addition to conducting a genre analysis, the present study was undertaken to identify formulaic language (FL), i.e., recurrent words or expressions that are used to express the communicative function of "move boundaries" (Bhatia, 1993, p. 56). Move boundaries can be determined based on the function that the move serves, as well as on the linguistic clues that include "discourse markers (connectors and other meta-textual signals), marked themes, tense and modality changes, and introduction of new lexical

references" (Connor & Mauranen, 1999, p. 52). For a research article to be recognized by members of a discourse community, it needs to follow the conventions of a particular journal regarding rhetorical structure and formulaic language. In recent years, interest has grown in studies of linguistic features of RAs, such as collocations, lexical bundles, the identification of different kinds of formulaic multiword sequences, and explanations of how these multiword sequences are used in a natural discourse (Biber, 2009). The study of formulaic language has increased in the field of English for specific and/or academic purposes through implementing corpus linguistics approaches.

The concept of formulaic language is referred to via a range of expressions in the literature (Wray & Perkins, 2000), including *recurrent word combinations* (Altenberg, 1998), *lexical bundles* (Biber, Johansson, Leech, Conrad, Finegan, & Quirk, 1999; Biber & Conrad, 1999), *clusters* (Hyland, 2008a; Schmitt, Grandage, & Adolphs, 2004), *prefabs or lexical phrases* (Nattinger & DeCarrico, 1992), *formulaic sequences* (Schmitt & Carter, 2004; Wray, 2002). In addition, Wray (2002) presented over 50 terms to describe the phenomenon of formulaic language, such as *chunks*, *collocations*, *formulas*, and *multiword units* (Bal, 2010). Wray (2002) defined a formulaic sequence as

> a sequence, continuous or discourteous, of words or other elements, which is, or appears to be, prefabricated; that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar. (p. 9)

The term *lexical bundles* was used in the present study. As noted by Biber et al. (1999), lexical bundles (LB) refer to "recurrent expressions, regardless of their idiomaticity, and regardless of their structural status" (p. 990). Lexical bundles can be

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long (e.g., *you can lead a horse to water, but you can't make it drink*), or short (*oh yeah!*). Lexical bundles also serve different purposes (Biber, 2009; Hyland, 2008c). They can express an idea or convey a message (*I think that . . .*), functions (*In addition, . . .*), and social solidarity (*Nice meeting you!*). Detailed information about the definition and characteristics of lexical bundles is provided in the next chapter.

In academic writing, writers need to acquire lexical bundles in the targeted genre. Doing so will help these writers acquire the specific rhetorical practices of the texts that they are asked to write. According to Hyland (2008b), writers need to be familiar with both the clusters that characterize their disciplines (i.e., their discourse community) and those that are valued in the particular genres of those disciplines. In the present study, via a corpus-driven approach, lexical bundles were identified from the move boundaries that perform a particular communicative function in each section in an RA. In addition, a comparison of lexical bundles between RAs published locally and internationally would enrich learners' understanding of how they should implement those LBs when they write publishable RAs, as the requirements for local vs. international publications may differ in appropriate LBs. Hyland (2008c) pointed out that corpus-informed lists and multiword units can be used to help establish bundles derived from the genres to incorporate into English for Academic Purposes (EAP) courses and the design of relevant teaching materials.

There are two main corpus linguistics approaches to linguistic features: corpus-based and corpus-driven. According to Biber (2009), in linguistic theory, the primary research goal of the corpus-based approach is to analyze the systematic patterns of use for those predefined linguistic features. In other words, in corpus-based studies of formulaic

language, the researcher preselects formulaic expressions and then analyzes the corpus to discover how those expressions are used (Moon, 1998). In contrast, corpus-driven research is more inductive; the linguistic features and formulaic language emerge from the analysis of a corpus. In its most basic form, the corpus-driven analysis assumes only the existence of words discovered from the corpus analysis, while co-occurrence patterns among words are the basis for subsequent linguistic descriptions (Biber, 2009, p. 276).

**Statement of the Problem**

English-language research articles have become the primary channel for scholarly communication and circulation by researchers of academic knowledge of new findings to other members of discourse communities (Swales, 1990, 2004). Writing a research paper that is acceptable for publication in a scholarly journal is considered daunting to novice writers, especially for nonnative speakers of English. Writing for publication requires a mastery of many English writing skills and techniques to make the research article academically sound enough for possible acceptance in well-established journals (Moldovan, 2011). Certainly, authors have to obtain a particular pattern of rhetorical organization and mastery of the conventions accepted by members of the discourse community. It is essential to understand not only the pattern of organization of research articles in the targeted field, but also how lexical bundles are selected and employed by the authors in the same field.

Notably, there is a need for proper training in academic writing skills (particularly in text organization) not only for students who seek a higher degree abroad, but also for academic writers who seek recognition in the new international academic community (Jogthong, 2001). Swales (2004) reported that English has become the dominant

language of research, commerce, and education. Furthermore, Dudley-Evans and St. John (1998) mentioned that the main criterion for success in the relevant field depends on how effectively the students handle different writing genres, including summaries, essays, reviews, and research papers.

In the field of applied linguistics, Saudi Arabian researchers and graduate students need to possess knowledge of specific genre conventions to facilitate their writing for publication, particularly in international scholarly journals. Publishing research articles in international journals provides several benefits for both researchers and their countries. For the researchers, publishing research articles in international scholarly journals means that these writers' voices are heard in the international academic (i.e. discourse) community. In addition, the writers are able to represent their home countries' perspectives (Shi, 2014).

As a matter of fact, Saudi Arabian researchers and graduate students are under enormous pressure to publish their work in well-respected international journals. According to the regulations for promoting faculty members to higher ranks (i.e., associate professor and full professor), the minimum research product required for promotion to the rank of associate professor is four units, while promotion to the rank of full professor requires a minimum of six units. As stated in Article 34 in the regulations available in Jazan University's website,

> [t]he academic achievement shall be counted as "one unit" if it is single authored, "half unit" if it has two authors. If the research is authored by more than two individuals, "half unit" shall be assigned for the main author and "quarter unit" for each of the others. If another collective work is considered for promotion, a

"quarter unit" shall be assigned for each researcher. (Ministry of Education, 2012, p. 21)

The academic achievement needs to be published or accepted for publication in internationally recognized refereed journals indexed in Thomson Reuters (TR), Institute for Scientific Information (ISI), Scopus, Cabell's, or similar databases. The university council at every university sets the acceptance criteria for the refereed journals. Being under the pressure of getting published in scholarly journals, Saudi researchers need to fulfill the requirements of the international discourse community. This may be driven by two factors. First, international journals are different from national journals in what is considered acceptable in writing style and rhetorical structure (Shi, Wenyu, & Jinwei, 2005); international journals have their own requirements for writing style and structure.

Second, Saudi writers may include discourse and linguistic features available in Saudi English (SE) in their English writing, which may differ from those used in standard written English prose (AL-Haq & Ahmed, 1994; AL-Haq & Smadi, 1996; Al-Rawi, 2012). Unfortunately, the literature of Saudi English shows a dearth of research on this topic (Fallatah, 2016; Mahboob & Elyas, 2014). The majority of the studies have focused on linguistic features (e.g., semantic, syntactic) in written discourse (i.e., essays) produced by Saudi students (AL-Haq & Ahmed, 1994; AL-Haq & Smadi, 1996; Al-Rawi, 2012), while Mahboob (2013) explored linguistics features of SE in textbooks. Recently, Fallatah (2016) argued that Saudi English RA abstracts differ from the international RA abstracts in several aspects: "showing more move presence fluctuation; verbosity; move cyclicality; excessive use of citation, acronyms, and listings; and multi-paragraphing" (p. 368).

In response to the difficulties of writing for publication, English for specific purposes (ESP) is arguably the most influential approach in the teaching of the specialist varieties of English to L2 learners (Bhatia, 1993; Cheng, 2006; Flowerdew, 2002; Hyland, 2003; Johns, 2003; Swales, 1990, 2004; Swales & Feak, 2004). The genre-based approach, originated by John Swales (1990), refers to analyzing the discourse organization of RAs via moves and steps. Steps refer to "a lower-level unit than a move that provides a detailed perspective on the options open to the writer in setting out the moves" (Dudley-Evans & John, 1998, p. 89). The other approach is concerned with the language used in RAs, which is analyzed by utilizing corpus linguistic approaches, such as discourse features (Marco, 2000; Tarone, Dwyer, Gillette, & Icke, 1998).

The present research study was an initial exploration of the similarities and differences in rhetorical conventions and lexical bundles in English research articles published in local Saudi journals compared with those published in international journals in the field of applied linguistics.

**Purpose of the Study**

This study was pedagogically motivated; its ultimate aim was to provide the basis for a genre approach and the application of the concepts of corpus linguistics to academic writing for ESL/EFL postgraduate students in the field of applied linguistics. The purpose of the study was to compare the rhetorical structure and lexical bundles of English-language research articles (introduction-methods-results-discussion-conclusion or I-M-R-D-C) sections published in local Saudi Arabian and international journals in the field of applied linguistics. Both genre-based and corpus-driven approaches were conducted. First, the move structure of RAs was determined by using the genre-based approach, in

which the RA sections were analyzed by Swales' (2004) three-move revised Create-A-Research-Space (CARS) model to analyze the introduction section, Peacock's (2011) seven-move model to examine methods section, and Ruiying and Allison's (2003) models to analyze the results-discussion-conclusion sections. Next, the corpus-driven approach (i.e., by using a computer software called *AntConc*) was applied to investigate lexical bundles associated with each identified move in each IMRDC section.

My choice of discipline is applied linguistics, which can be defined simply as "a practice-driven discipline that addresses language-based problems in real-world contexts" (Grabe, 2010, p. 42). In detail, the Association Internationale de Linguistique Appliquée or International Association of Applied Linguistics (AILA) in the websites provides a comprehensive definition of applied linguistics as "an interdisciplinary field of research and practice dealing with practical problems of language and communication that can be identified, analysed, or solved by applying available theories, methods, and results of linguistics or by developing new theoretical and methodological frameworks in linguistics to work on these problems". Applied linguistics deals with problems that

> range from aspects of the linguistic and communicative competence of the
> individual, such as first or second language acquisition, literacy, [and] language
> disorders to language and communication-related problems in and between
> societies, such as language variation and linguistic discrimination,
> multilingualism, language conflict, language policy and language planning.
> ("AILA," n.d.)

I chose applied linguistics as the field for the study for two reasons. First, my research interests revolve around this area. That is, I have sufficient background

knowledge about theoretical and applied linguistics, which allows me to read and interpret research articles in these two fields. I have two master's degrees: an M.A. in linguistics, and an M.A. in TESOL. In addition, I have taught courses in the field of English for Specific and Academic Purposes (ESAP). Second, Ruiying and Allison (2003) stated that applied linguistics for pedagogic motives requires raising awareness of genre features and knowledge. By applying genre-based and corpus-driven approaches and strategies, Saudi Arabian graduate students would become aware of the required rhetorical conventions and linguistic features needed to publish their work in highly-ranked international journals in their fields of specialty. Thus, the comparison of the rhetorical structure and lexical bundles of RAs in this field (i.e., applied linguistics), which has not been explored widely, especially in Saudi Arabia, would benefit English language teaching and learning for specific and academic purposes.

**Research questions**

The present study addressed the following research questions:

1. What are the rhetorical moves utilized in articles published in Saudi journals of English applied linguistics, and how do they compare with those published in international journals of applied linguistics?

2. What lexical bundles are utilized in each move of English applied linguistics research articles published in Saudi journals, and how are they similar to or different from those in international journals?

**Significance of the Study**

The genre-based study of research articles can provide a clearer understanding of the rhetorical conventions of research articles in the field of applied linguistics. The study

would also provide students, especially graduate students, with the appropriate techniques on how to write a research article that could be published in a highly-ranked international journal. As advised by Nwogu (1997), analyzing complete sections of research articles could provide writers as well as readers with an understanding of the organizational structure of such articles. It also could offer a demonstration of how an overall genre analysis of complete sections of RAs might provide greater insights into each part of a research article than would mere sectional studies alone (e.g., the results section only).

Cheng (2006) stated that many writing teachers and practitioners who work in the fields of English for Specific Purposes (ESP) and/or English for Academic Purposes (EAP) believe that explicit attention and explanation to genres in teaching provides learners with a solid opportunity to "acquire conceptual and cultural frameworks to undertake writing tasks beyond the courses in which such teaching occurs" (p. 77). Notably, each section of research articles is distinct, both in communicative purposes (functions) and linguistic realization. For instance, the communicative function of the introduction section is to *introduce* a study to readers, whereas the method section explains the procedures used in conducting a study. The communicative functions of each section of RAs are presented in detail in the following chapter.

In addition, the present study provided a list of lexical bundles for writing RAs in the field of applied linguistics. Hyland (2008c) encouraged learners to notice these multiword units, such as lexical bundles, through repeated exposure and through activities. Furthermore, academic writing instructors in the field of ESP and EAP could

introduce a set of lexical bundles associated with and that occurred more frequently in a particular move/step for students to investigate in their own corpora (Cortes, 2013).

For the present study, I designed a syllabus to test the pedagogical implications under examination. To accomplish this objective, the syllabus incorporated the findings of both approaches employed in this study: the genre-based approach and the corpus-driven approach. The syllabus included a description of the process of analyzing research articles' sections to identify the rhetorical structure (i.e., moves and steps) found in each section. Also, the process of building a specialized corpus and a list of the most common lexical bundles with their functions derived from the results of the present study were included as guidelines for the language learner.

**Scope of the Study**

To answer the research questions, the scope of the study was confined to the following areas:

1. Only research articles with the introduction, methods, results, discussion and conclusion (IMRDC) sections were selected from international and local Saudi Arabian journals.

2. The analysis of the rhetorical structure of the research articles was conducted in light of three models of move analysis: Swales' (2004) (CARS) model to analyze introduction sections, Peacock's (2011) model to examine methods sections, and Ruiying and Allison's (2003) models to analyze results-discussion-conclusion sections. The reasons behind choosing these models are discussed in Chapter 3.

3. The cutoff dates for the research articles in the two corpora was that they had to have been printed during five years (2011–2016). The 30 research articles (15 articles from each corpus) were taken from eight peer-reviewed journals published in Saudi Arabia and internationally.

4. The corpus-driven approach, by employing *AntConc* computer software, was applied to investigate lexical bundles associated with each identified move in each IMRDC section.

5. Lexical bundles were identified according to their functions that link particular rhetorical moves/steps. Only four-word strings were investigated in the study. Hyland (2008c) stated that four-word bundles offer a clearer range of structures and functions compared with three- or five-word strings.

**Limitation of the Study**

The present study had the following limitations:

- Only 30 research articles were analyzed in this study; 15 research articles were selected from each corpus.

- The only lexical bundles examined were four-word sequences.

- As move identification is considered subjective (Crookes, 1986; Kanoksilapatham, 2003), we must be cautious of the reliability and validity of the analysis. Thus, to reduce bias in such analysis as much as possible, inter-coder analysis was obtained in the present study. With systematic coding and reliability checks, the analysis was more valid and reliable.

- The lexical bundles found in the study were validated based on the criteria of extracting them. Then the bundles were analyzed structurally and functionally by using Biber et al's (1999) and Hyland's (2008c) taxonomies.

**Summary of the Chapter**

This chapter has introduced the present study. The chapter has presented the importance of the genre analysis, the gap that exists in the studies in this field, and has explained the significance of the problem addressed by the study. Also, the purpose of the study and the research questions were introduced. The outline of the study was also presented briefly. The next chapter covers the review of the literature related to this study.

# CHAPTER 2

# REVIEW OF LITERATURE

This chapter presents a review of the literature relevant to move analysis and lexical bundles. The review begins by presenting the status of current academic publications in Saudi Arabia, followed by a section covering the theoretical framework of genre, genre analysis in English for Specific Purposes (ESP), and move analysis. The last section introduces an overview of lexical bundles and related research, along with the relationship between genre analysis and lexical bundles.

## Academic Publication in Saudi Arabia

Research and academic publications play critical roles in promoting the prosperity of a nation, as well as universities' rankings worldwide (Hyland, 2016; Pho & Tran, 2016). For this purpose, several universities have instilled the pressure to publish on their teaching staff and faculty, and most especially, to publish research articles in internationally peer-reviewed journals. In Saudi Arabia, the pressure is even greater on both private and public universities, as the Ministry of Education (MOE) has paid significant attention to scientific research through supervision, and coordination with the 25 state universities (Ministry of Education, n.d.). According to the MOE's website, these state universities are "geographically distributed to the different regions of the Kingdom of Saudi Arabia (KSA)." All these Universities are linked with the MOE but "enjoy a great deal of administrative and academic autonomy. In addition, the ministry provides support to specialized research institutes, and organizes scientific seminars and conferences in these universities." The MOE also provides "the opportunity to the teaching staff members, in Saudi universities, to take part in specialized scientific

activities and have access to developments in their areas of specialty" (Ministry of Education, n.d.).

As in any other university, the major duties for a faculty member at a Saudi public university is to teach, conduct research, and contribute to community service activities: These three components are linked to academic promotion as stated in Chapter One (Al Yahya & Irfan, 2012; Al-Ghamdi & Tight, 2013; Alzuman, 2015). As a result, attempting to accomplish all of these duties may place enormous pressure on faculty members who are seeking a promotion. It is worth noting that there are two academic job types at Saudi state universities: permanent (tenured) and non-permanent. The tenured positions are offered to Saudi faculty, while the non-permanent positions are assigned to non-Saudi faculty members. Although the Saudi faculty members are often appointed directly into tenure-track positions, following graduation from local or foreign universities, they are still required to conduct and publish scientific research in order to be promoted to associate professors and then to full professors.

Enhancing research productivity, within higher education, in the Kingdom of Saudi Arabia is one of the core objectives in the National Development Plans, which aim at achieving social and economic aspirations for the country (Alzahrani, 2011). Thus, the importance of academic research at Saudi Arabia's public universities is further driven by the increases in governmental funding for scientific research. In the same vein, almost all universities encourage their staff and faculty members to publish their work in local and international peer-reviewed academic journals. According to the Faculty and Staff Handbook of Qassim University (2012), "[p]ublishing the findings of scientific research in local and international journals" play an important role in achieving the goals and

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missions of the university (p. 134). Other universities in Saudi Arabia have placed a greater burden on faculty members through the strict application of the promotion policy. For instance, the Scientific Council at Jazan University has issued an executive order comprising nine criteria to identify acceptable refereed scholarly journals. Among these criteria are as follows:

1. The scholarly journal should be published via a well-recognized scientific organization (e.g. universities, institutions, scientific research centers, scientific societies, and international publishers).

2. The editorial board of the journal should be from the academicians or from scholars with distinguished reputation in their fields (Ministry of Education, 2012, p. 17).

Yet, the research productivity by academic faculty and staff in Saudi universities is relatively poor in comparison with other universities in the developed countries (Alshayea, 2013; Alzahrani, 2011; Borg & Alshumaimeri, 2012). It may be that the barriers Saudi researchers feel they face at their universities, such as the overwhelming teaching workload, the lack of information resources in the university's libraries, the lack of incentives and motives, and the lack of financial support and funding for research are possible reasons for inadequate Saudi research productivity (Al-Bishri, 2013; Algadheeb & Almeqren, 2014; Alghanim & Alhamali, 2011; Azad & Seyyed, 2007). Despite these barriers, Saudi researchers and new faculty members need to conduct research in their respective fields to achieve personal and universal objectives, which include cooperation and exchanging knowledge and expertise between scientific and research agencies and

institutions, inside the Kingdom and abroad, to strengthen the role of Saudi universities globally.

The Saudi scientific and academic journals have become more prolific in the past few years. Alsalem (2015) stated there were 52 journals published locally in different disciplines with various missions and goals. The majority of these journals publish biannually and quarterly in Arabic, with a few publishing in both Arabic and English. The largest universities in Saudi Arabia publish these scientific and research journals, with the vast number being published by King Saud University, followed by King Abdulaziz University, Qassim University, Umm AlQura University, and Imam Muhammad Ibn Saud University. Once published, the majority of these universities then distribute their academic journals, both locally and internationally, through the Publishing Scientific Centers available in the universities. All Saudi research journals follow the peer-review process and have editorial boards mostly comprising Saudi university faculty.

Despite the establishment of the proper research journalistic framework, the Saudi scientific and academic journals have encountered several challenges. These challenges include problems in journals' documentation, indexing and designing, poor distribution, advertising and marketing, delays in publishing volumes and issues, lower numbers of manuscripts submitted to these journals, long and complex publishing procedures, and finally issues related to organization, citation, and copy rights (Alzahrani, 2011; Alzuman, 2015). To overcome or at least minimize the effect of these challenges, some universities have taken several steps to ensure production of high quality journals by creating special websites for the journals and employing certain citation and format

styles, such as American Psychological Association (APA) or Modern Language Association (MLA). In addition, a number of the universities have instituted more contemporary aids relating to scientific research, such as databases and local repositories (Alzahrani, 2011). With the implementation of these steps, Saudi research journals are attempting to attract both Saudi and non-Saudi researchers to publish their manuscripts in these journals.

As previously mentioned, Saudi researchers are required to publish their work in international scholarly journals, although it seems that few of them have managed to accomplish this. It may be that the reputed international scholarly journals, which require critical academic writing skills and higher awareness of specific genre conventions and linguistic features of these journals, are too highly competitive. The following section examines the concept of genre and genre analysis in the field of English for Specific Purposes (ESP).

**Overview of Genre**

The term *genre*, which was first introduced in 1770 and whose origin is French, has been used and debated for decades in different fields, such as literature, fine arts, linguistics, rhetoric and communication, and journalism. In a literal meaning, according to Merriam-Webster Online Dictionary, *genre* refers to "a category of artistic, musical, or literary composition characterized by a particular style, form, or content." Scholars such as John Swales (1990), Vijay Bhatia (1993), and James Martin (1984) have provided practical definitions and illustrations of genre in the field of applied linguistics (i.e., English for Specific Purposes (ESP) based on their different perspectives, frameworks, and schools.

Swales (1990), an erudite scholar in the field of ESP, provides a very comprehensive definition of genre.

> A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style… (p. 58).

In Swales' definition, the emphasis is placed on two concepts, yet it lacks other elements. The two concepts, which are emphasized, are the importance of communicative purposes and the role of the discourse community, in which expert members who belong to a discourse community accomplish their communicative purposes. Both ideas link writers, readers, and social contexts together, and the two concepts further distinguish the genre from another. While Swales' definition "offers a good fusion of linguistic and sociological factors in his definition of a genre," it lacks the psychological aspects of the genre (Bhatia, 1993, p. 16). Bhatia (1993) argues that Swales' definition "underplays psychological factors, thus undermining the importance of tactical aspects of genre construction, that play a significant role in the concept of genre as a dynamic social process, as against a static one" (p. 16). To address this issue, he defines genre as:

> [A] recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of the professional or academic community in which it regularly occurs. Most often, it is highly structured and conventionalized with constraints on allowable contributions in terms of their intent, positioning, form, and functional value. These constraints,

however, are often exploited by the expert members of the discourse community to achieve private intentions within the framework of socially recognized purpose(s) (Bhatia, 1993, p. 13).

Likewise, Bhatia's definition sustains the essential features of *genre* – the importance of communicative purposes and the role of the discourse community. Bhatia also extends Swales' description by bringing in the psychological (e.g., cognitive) level of genre construction. Similarly to Bhatia, Berkenkotter and Huckin (1995) identify five concepts considered as an essential part of genre: dynamic, *situatedness*, form and content, the duality of structure, and community ownership. The duality of structure and situatedness are not mentioned in Swales' definition. The former refers to how a discourse community simultaneously develops and rebuilds social structures, whereas the latter concerns the process of how genre knowledge is constructed through a member's participation in a certain discourse community.

With all these definitions and perceptions of genre, most scholars have nevertheless defined genre in an applicable and useful way, based on their point of view. The majority of the definitions for genre are rather long and contain several additional explanations, as well as many details, in which this variation could be noticed and interpreted in different ways, thereby revealing its complexity. In fact, they show how multifaceted thoughts about genre can be across disciplines and schools of thought.

After briefly viewing the definitions of genre in the field of applied linguistics (i.e., ESP), the following section focuses on analyzing different genres in various sub-disciplines in the areas stated above.

**Genre Analysis**

Genre analysis was developed in the early 1970s and 1980s as a part of the development of discourse analysis. Since then, genre analysis has attracted the attention of not only linguists, discourse analysts, and rhetoricians, but also of sociologists, cognitive scientists, advertisers, and others (Bhatia, 2002). Genre analysis is defined, by various scholars, as the study of situated linguistic behavior (Bhatia, 2002), and a *typification* of social and rhetorical action (Berkenkotter & Huckin, 1995; Miller, 1984). Martin (1993) explained genre analysis as regularities of staged, goal-oriented social processes, while Swales (1990) reported genre analysis as a consistency of communicative purposes (Bhatia, 1993, 2004).

Certainly, the fundamental goal of genre analysis is to study the communicative purposes of discourse and language-use strategies. According to Dudley-Evans and John (1998), one of the main purposes of genre analysis is "its ability to relate textual findings to features of the discourse community within which a genre is produced" (pp. 91-92). In addition, Tardy and Swales (2014) indicated that the primary goal of genre analysis is to "gain insight into the social function of language" (p. 167). Indeed, analyzing genres assist researchers, teachers, students and policymakers in surpassing an intuitive understanding of language for specific purposes and focusing toward more critical and complex views of language within social settings (Tardy, 2011).

**Discourse Analysis vs. Genre Analysis.**

Genre analysis is a more specific form of discourse analysis, that is genre analysis looks specifically at forms of discourse that are used by members of targeted discourse. Bhatia (1993) stated that the history of discourse analysis and its development

has undergone four main stages: register analysis, grammatical–rhetorical analysis, interactional analysis, and genre analysis.

In fact, there is an essential difference between discourse analysis and genre analysis. That is, discourse analysis is considered a linguistic study, while genre analysis is considered a pedagogical study. To elaborate, discourse analysis describes such features as the semantic patterns and logical development of the texts, whereas genre analysis attempts to not only describe but also analyze and explain the rhetorical functions and the linguistic features of a particular text, written within a given discourse community for the benefit of members belonging to that community. Genre analysis further evolved into three schools or framework of study.

**Three Schools to Genre Analysis**

Following an influential article written by Hyon (1996) entitled "Genre in Three Traditions," it has become traditional to view non-literary genre studies analyzed by scholars from three *traditions* (i.e., schools, frameworks) (Tardy & Swales, 2014). These schools are the Australian or Sydney school (i.e., Systemic Functional Linguistics) (e.g., Halliday & Hasan, 1989; Martin, 1985), the North American New Rhetoric Studies (Bakhtin, 1981; Miller, 1984), and English for Specific Purposes (e.g., Bhatia, 1993; Dudley-Evans, 1994; Swales, 1990). Table 1 summarizes the three schools to genre analysis (Fakhruddin & Hassan, 2015; Kobayashi, 2003).

Table 1: Three Schools to Genre Analysis

| Feature | Australian Genre Theories | New Rhetoric Studies | ESP Analysis |
|---------|---------------------------|----------------------|--------------|
| **Aim** | To understand the organization and structure of a language in realizing its | To gain insights on genres' dynamic relationship to exigencies, situations, and social motives in the way | To provide language learners appropriate language resources and skills to gain access to the language |

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| | | | |
|---|---|---|---|
| | social purpose within a particular context and culture | people construct, interpret, and act within particular situations through the study of society | demands encountered in studies or professions (Swales, 1990) |
| **Key Concept** | Realization | Typification | Discourse community and communicative purpose |
| **Researchers** | Systemic-functional linguists | North American scholarship interested in L1 teaching | ESP scholarship |
| **Objective** | Pedagogical | Pedagogical | Pedagogical |
| **Setting (context)** | Primary, secondary, adult education for minorities, migrant workers and other mainstream groups | NSE in undergraduate schools | NNSE, EAP, EPC, and ESP |
| **Genre Theory** | Genre as "staged-goal-oriented social processes" (Martin, 1984) | "Genre as social action" with social purposes (Miller, 1984) | Genre as "communicative events characterized by their communicative purposes" and by various patterns of "structure, style, content, and intended audience" (Swales, 1990, p. 58) |
| **Text Analysis** | Analysis of linguistic features within Hallidayan schemes of linguistic analysis | Text analysis based on ethnographic methods | Structural move analyses to describe global organizational patterns |

EAP= English for Academic Purposes, ESP=English for Specific Purposes, EPC= English for Professional Communication, NSE=Native Speakers of English, NNSE= Non-Native Speakers of English.

The New Rhetoric research describes a body of North American scholarship, from a variety of disciplines, concerned primarily with L1 teaching, including rhetoric, composition studies, and professional writing, as represented by Bazerman (1988) and Miller (1984). Essentially, the advocates of this school consider genre as social action developed within Rhetorical Genre Studies (RGS). For instance, Miller (1984) defines

genre as "typified rhetorical actions based on recurrent situations" (p. 31). New Rhetoric analysists examine genre through the study of the society in which the genre is used.

The Australian genre theories have developed mainly independent of ESP and New Rhetoric studies. The approaches of Australian scholars to genre analysis have been centered within Systemic Functional Linguistics (henceforth SFL) being a grand theory of language developed by Michael Halliday, the founder of the Department of Linguistics at the University of Sydney in 1975 (Hyon, 1996). Since then, Halliday has prominently influenced language theory and education in Australia. In general, SFL centers on the relationship between language and its functions in social settings, in that three key features of the surrounding social context shape the forms of language (i.e., register), and were identified by Halliday as *field* (the activity going on), *tenor* (the relationships between participants), and *mode* (the channel of communication) (Halliday, 1978; Halliday & Hasan, 1989; Hyon, 1996). To provide a complete characterization of texture, Halliday (1978) stated "we should have to make reference to generic structure, the form that the text has as a property of its genre" (p. 133). He further defined the concept of "generic structure," as something that "can be brought within the general framework of the concept of register" (p. 134). According to Martin (1984), genre is considered as "staged, goal-oriented and purposeful activity that people engage in as members of their culture" (p. 25).

Nevertheless, genre and register are two different concepts. Couture (1986) emphasized that within the systemic linguistics the terms *genre* and *register* have to remain separate because as he clarified, register deals with linguistics' level of vocabulary and syntax, whereas genre operates at the level of discourse structure (Swales,

1990). Similarly, Martin (1992) differentiated between genre and register and referred to register as a "semiotic system constituted by the contextual variables field, mode, and tenor" (p. 502), while genre was defined as "the system of staged, goal-oriented social process, through which social subjects in a given culture live their lives" (Martin, 2000, p. 13). That is, register operates at the level of context of situation, whereas genre performs at the level of context of culture.

In the ESP work, genre refers to a communicative event, such as university lectures, academic essays, research articles, and business reports. ESP genre studies were based on the work of John Swales, the pioneer of ESP genre analysis approach. Notably, the works of Swales had an extraordinary influence on teaching English for specific purposes, particularly in the field of ESL academic writing (Paltridge, 2014). These studies have investigated the discourse structures of research articles, doctoral dissertations, master's theses, and legislative documents, to name a few, and the information gained from the analysis was then applied to the classrooms, curriculum design, and ESP teaching materials. In the ESP perspective, the genre analysis of the structures is usually described in terms of *moves*, and an important role is given to the communicative purposes of the structure. A move refers to a discoursal segment that performs a particular communicative function (Swales, 2004).

With such varying perspectives, the relationship among the three schools seems separate. Yet Flowerdew (2002) postulated that grouping genre into two different camps is "more useful" than three disparate schools. The difference, according to Flowerdew, relies on *linguistic* and *non-linguistic* approaches, claiming that:

[T]he ESP and Australian schools . . . apply theories of functional grammar and discourse, concentrating on the lexico-grammatical and rhetorical realization of communicative purposes embodied in a genre, whereas the New Rhetoric group . . . is more focused on situational context—the purposes and functions of genres and the attitudes, beliefs, values, and behaviors of the members of the discourse community in which the genres are situated. (p. 91)

A detailed clarification on ESP genre analysis approach is presented in the following section.

**Genre Analysis and ESP**

The first appearance of the term genre in the field of ESP occurred in a 1981 article titled, "On the Use of the Passive in Two Astrophysics Journal Papers" by Tarone, Dwyer, Gillette, and Ickes (1981). The article, pertinent to the field of ESP, was published in ESP's flagship journal, *ESP Journal*, and it examined the use of the passive voice in relation to rhetorical aim (Tardy, 2011). At that time, the majority of studies examined a single "discourse type" within a given register. The emphasis of these studies was primarily on describing linguistic features that were most relevant to learners. The contributions of first John Swales (1981, 1990) and then Vijay Bhatia (1993, 2002), Ken Hyland (2000), and Tony Dudley-Evans (1994, 2000), have established the groundwork for an ESP genre analysis. These foundational works have been mirrored by other scholars and experts in various disciplines, including the field of English for Academic Purposes (EAP),

The field of English for Academic Purposes (EAP) pertains to "language research and instruction that focuses on the specific communicative needs and practices of

particular groups in academic contexts" (Flowerdew & Peacock, 2001; Hyland & Hamp-Lyons, 2002, p. 2; Jordan, 1997). As stated within the definition, the instruction is tailored to specific rather than general purposes, as the field of EAP has emerged from the broader field of ESP, a theoretically and pedagogically eclectic parent. In addition, EAP has been developed by a group of scholars, practitioners, and researchers associated with the *English for Specific Purposes Journal* and the *Journal of English for Academic Purposes* (Wingate & Tribble, 2012). The primary purpose of EAP is to provide insights into three main aspects: (a) "the structures and meanings of academic texts," (b) "the demands placed by academic contexts on communicative behaviors," and (c) "the pedagogic practices by which these behaviors can be developed" (Hyland & Hamp-Lyons, 2002, p. 3).

      **Swales' concepts of ESP genre analysis.** The concepts of ESP genre analysis have built on the work of John Swales. Swales' (1981, 1990) study synthesizing 40 research articles, as described in the Introductions section of this paper, has become a historical document in the area of ESP genre analysis. Swales' work has shifted the concentration of ESP genre studies from a purely linguistic analysis to analyzing genre as a discursive unit, which occurred with his proposal of a new analytical method known as *move analysis* or *move structure analysis*. In short, as noted by Swales (1990), the discourse structure of texts consists of several parts that carry out specific rhetorical functions (i.e., moves). Each move may contain one or more steps: a term referring to "a lower level unit than a move that provides a detailed perspective on the options open to the writer in setting out the moves" (Dudley-Evans & John, 1998, p. 89). Swales referred

to his genuine genre analysis method as the Create-A-Research-Space (CARS) model. Further details on this model are presented later in Chapter 3.

In ESP genre analysis, Swales (1990) asserted his theory by focusing on three key concepts bound together by communicative purpose; discourse community, genre, and language-learning task (p. 9).

*Concept of discourse community.* Swales (1990) clarified discourse communities as "sociorhetorical networks that form in order to work toward sets of common goals," and whose discourse community members' were familiar "with the particular genres that are used in the communicative furtherance of those sets of goals" (p. 9). In addition, Swales (1990) proposed six characteristics to identify a group of individuals as a member of a certain discourse community. A discourse community has:

1. a set of common public goals;

2. mechanisms of intercommunication among its members;

3. uses its mechanisms to provide information and feedback;

4. utilizes and possesses one or more genres in the communicative furtherance of its aims;

5. acquires some specific lexis;

6. consists of members with a suitable degree of relevant content and discourse expertise (p. 24– 27).

It is worth stating that Swales' concept of discourse community is different than the concept of speech community in the sociolinguistic studies proposed and discussed by various scholars, such as Hymes (1974), Labov (1968), and Saville-Troike (2003).

Swales (1990) clarified the distinction of the three major differences between discourse community and speech community. First, the medium of language is primarily written, not spoken, in the discourse community as compared with the speech community, which encompasses both written and spoken discourses. Secondly, in discourse community, the primary determinants of linguistic behavior are functional, whereas in the speech community they are social. Lastly, speech communities are centripetal, in that people tend to move toward one community or group, while discourse communities are centrifugal because people tend to separate into specialty interest groups.

*Concept of genre.* Swales (1990) believed, as discussed earlier, that "a genre comprises a class of communicative events, the members of which share some set of communicative purposes" (p. 58). By and large, Swales' definition of genre was influenced by the work of North American scholars of composition and rhetoric studies, particularly Carolyn Miller (1984) and Charles Bazerman (1988). Miller's (1984) definition of genre as social action situated genre as a rhetorical category rather than a linguistic one, defining genres as "typified rhetorical actions based in recurrent situations" (p. 159). Bazerman's work in academic writing discipline "illuminated the close relationship between disciplinary approaches to knowledge construction and the forms through which such knowledge is articulated" (Tardy, 2011, p. 148).

Comparatively, there are numerous differences among genres. First, genres vary based on the complexity of rhetorical purposes, from a very simple genre, such as recipes, to a very complex one as in political speech (Swales, 1990). Another variation is how genres are fully prepared or constructed to represent communicative purposes, as in

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research papers and news broadcasts. Genres also vary in the sense of how they are expressed throughout the medium or mode, such as spoken or written. Dubois (1985) stated that research papers, for example, can be presented at conferences in manuscript delivery or as loud reading (Goffman, 1981; Swales, 1990). Lastly, genres vary on the basis of the extent to which and how genres are representing universal or language-specific tendencies.

   *Concept of task.*

   The third concept of Swales' genre analysis is language learning task. Swales defines a language learning task as:

> One of a set of differentiated, sequenceable goal-directed activities drawing upon a range of cognitive and communicative procedures   relatable to the acquisition of pre-genre and genre skills appropriate to a foreseen or emerging sociorhetorical situation (Swales, 1990, p. 76).

The aforementioned three concepts interweave together in the following way. As stated earlier, discourse communities are sociorhetorical networks that are formed to achieve common goals. The familiarity with particular genres used in these discourse communities plays a vital role in establishing members within these communities. In addition, genres belong to discourse communities or other kinds of groups but not to individuals. Since genres are considered communicative events that consist of various types of texts (written, spoken, or a combination), these types of texts require encoding and decoding procedures moderated by genre-related aspects of text-role and text-environment. Therefore, these processing procedures can be viewed as tasks (Swales, 1990).

**The Genre of Research Articles**

The research article (RA) is considered a genre in academic writing, and it is regarded as a medium to communicate and share new discussions, information, and knowledge with the discourse (e.g., academic) community (Flowerdew, 2005; Kanoksilapatham, 2003; Musa et al., 2015). Swales (1990) defines RA as a written text limited to a few thousand words, that accounts for some investigation carried out by its author(s). Importantly, all members of academia (i.e., students, teachers, researchers, and faculty members) need to possess various academic writing skills and techniques, relating to writing research articles, in order to be recognized as  professional members within their own disciplines. Thus, research articles are perhaps the most important genre for researchers in the international discourse community. Research articles are also essential for the advancement of a scholar's professional standing (Swales, 1990). Latour and Woolgar (1979) claimed that the primary goal of RAs is to persuade the academic community to accept new knowledge. Moreover, RAs have various models, with each model encompassing a number of sections, depending on the field the model belongs. For example, most RAs comprise an Introduction-Methods-Results-Discussion (IMRD) structure (Swales, 1990). In the field of applied linguistics, however, Literature Review (LR) is also included in IMRD model (Jian, 2008).

**Genre Studies in Research Articles**

In recent years, English-language research articles have become increasingly important in the academic world due to the role that RAs play in transferring knowledge. The awareness of move (M) variations in text structure played a vital role in publishing written pieces in the international community (e.g., journals) (Fazilatfar & Naseri, 2014).

To accomplish this, English for Specific Purposes (ESP) genre analysis of RAs studies was implemented in various disciplines to explore both the discourse structure of several sections in RAs, as well as usage patterns of linguistic features.

The RA sections have been scrutinized and analyzed by scholars and experts in the field of English for specific purposes and other disciplines. Previous research has investigated RAs in particular disciplines such as Applied Linguistics (Pho, 2008b), Medicine (Nwogu, 1997; Salager-Meyer, 1992), Sociology (Brett, 1994), and Computer Science (Posteguillo, 1999). There are a plethora of studies analyzing RA sections, such as Abstracts (e.g. Bhatia, 1993; Pho, 2008a; Salager-Meyer, 1992; Santos, 1996), Introduction (Bhatia, 1993; Hopkins & Dudley-Evans, 1988; Ozturk, 2007; Samraj, 2002; Swales, 1990), and Discussion (Dudley-Evans, 1994; Fallahi & Erzi, 2003; Holmes, 1997; Peacock, 2002; Ruiying & Allison, 2003). By contrast, some sections have drawn less researcher attention; Literature Review (Kwan, 2006; Kwan, Chan, & Lam, 2012), Methods (Bruce, 2008; Lim, 2006; Peacock, 2011), and Results (Brett, 1994). However, some researchers have investigated all four of the Introduction-Method-Result-Discussion (IMRD) RA sections (Kanoksilapatham, 2005; Nwogu, 1997; Pho, 2008a; Posteguillo, 1999). The following sections review the literature of each section in the RAs (e.g., Introduction-Method-Result-Discussion-Conclusion [IMRDC]) in two interrelated fields (i.e., linguistics and applied linguistics) and then compare them in relation to other disciplines.

**Introduction section.** The Introduction section of RAs has been a flourishing area of interest within the literature regarding the genre analysis of the RAs. According to Swales (1990), there are three purposes of the Introduction section: to establish a

territory, to establish the niche, and to occupy the niche (p. 141). The rhetorical purposes of the Introduction are to provide the rationale for the paper, establish the research topic, move from general discussion of the topic to the particular question or hypothesis being investigated, and then guide the readers to the current breakthroughs in the field (Denrtl, 2014). The most prevalent model for analyzing the Introduction section is Swales' (1990) Create-A-Research-Space (CARS) model. Since then, different types of genres in academic written English, to be precise, different sections of research articles (especially introductions), abstracts, theses, and dissertations were all analyzed in various EAP and ESP fields by using the CARS model.

*Previous studies on Introduction section.* RA introduction sections have been extensively examined and analyzed cross-disciplinarily, cross-linguistically, and cross-culturally, following the pioneering Swales' CARS analytical model of the Introductions section (Khany & Tazik, 2010). Several Introduction sections analyses have been conducted in the fields of linguistic and applied linguistics or had sub-disciplines compared in the field of applied linguistics using the CARS model (Atai & Habibie, 2009; Jalilifar, 2010;  Jalilifar & Kabezadeh, 2012;; Khamkhien, 2015; Khany & Tazik, 2010; Ozturk, 2007; Ruiying & Allison, 2003).

In the first version of the CARS model, Swales (1981,1990) laid the groundwork by analyzing 48 Introductions in three different disciplines (i.e., medicine, physics, and social sciences). The purposes of the analysis were to help non-native English speakers publish their articles in English, as well as to increase reading and writing RA skills. After analyzing the 48 sections, Swales designed a distinct four moves model: *Establishing a territory*, *Summarizing previous research*, *Establishing a niche*, and

*Occupying the niche*. Swales (1990) later revised this model and proposed a modified version that consisted of only three moves: Move 1, Establishing a territory; Move 2, Establishing a niche; and Move 3, Occupying the niche. A third version of the CARS model was published by Swales (2004). For a detailed discussion on the CARS model, see Chapter Three of this paper.

Following Swales' (2004) new CARS model, Jalilifar (2010) investigated the rhetorical organization of the Introduction section in Iranian and international journals in three sub-disciplines within the field of applied linguistics: English for Specific Purposes (ESP), Discourse Analysis (DA), and English for General Purposes (EGP). One hundred and twenty sections (40 from each sub-discipline, equally derived from Iranian and international journals) were involved in the study. Variations across sub-disciplines in both corpora were revealed despite some consistency in the international corpus. For instance, the international Introduction sections indicated differences in utilizing M-2 (Establishing a niche) and M-3 (Occupying the niche). Also, intra sub-disciplinary variation in the generic organization was noticed within sub-disciplines.

The majority of studies have employed Swales' (1990, 2004) model as an analytical tool for identifying rhetorical moves in the field of linguistics and applied linguistics. The studies also confirmed that the CARS model is profoundly appropriate, in both descriptive and pedagogic perspectives, for analyzing the Introduction section in theoretical linguistics and applied linguistics disciplines (Ahmad, 1997; Atai & Habibie, 2009; Hirano, 2009; Jalilifar, 2010; Jogthong, 2001; Khamkhien, 2015; Khany & Tazik, 2010; Ozturk, 2007; Shi & Wannaruk, 2014 – in agricultural science; Swales, 1981, 1990). The results indicated a degree of variability in terms of move structure across

subdisciplines of applied linguistics (Jalilifar, 2010; Ozturk, 2007) and in cross-linguistic

analysis (Ahmad, 1997- in Malay; Hirano, 2009 - in Brazilian Portuguese). On the other

hand, Atai and Habibie (2009), and Khani and Tazik (2010) found no variations in move

structure in their corpora. Khamkhien's (2015) analysis produced a modified CARS

model by adding a fourth move: Introducing the present study.

**Methods.** The Methods section describes a methodology utilizing materials and

procedures designed to answer research questions or hypotheses. Kanoksilapatham

(2007) claimed there is no manifested model for analyzing the Methods section in all the

RAs of all disciplines because many researchers do not pay much attention to this section

(Musa *et al*., 2015). Therefore, the Methods section requires different patterns of

rhetorical structure for various disciplines and different methods (Kanoksilapatham,

2003).

*Previous studies in Methods section.* The Methods section is the most

straightforward part of the RA and so has garnered the least interest from genre analysts.

Few studies, such as Khamkhien (2015), have investigated the Methods section in applied

linguistics,. Other studies have examined this section across various disciplines (e.g.,

Lim, 2006, in management; Peacock, 2011, across disciplines). Recently, Cotos,

Huffman, and Link (2017) proposed a comprehensive cross-disciplinary model, called

Demonstrating Rigour and Credibility (DRaC), which encompassed three moves and

sixteen steps (Move 1, Contextualizing Study Methods, Move 2, Describing the study,

and Move 3, Establishing credibility).

In a large corpus analysis, Peacock (2011) analyzed 288 Methods' sections across

eight disciplines: science (i.e., biology, chemistry, physics) and social science (i.e.,

business, language and linguistics, law, public and social administration). Seven moves in the large corpus were indicated in the findings: overview, location, research aims/questions/hypotheses, subjects/materials, procedure, limitations, and data analysis. Also, the interdisciplinary differences across disciplines were considered for rhetorical moves and move cycles.

In addition, Khamkhien (2015) analyzed 25 Introduction and Methods' sections in the field of applied linguistics. The purpose of the study was to identify the rhetorical structures and linguistic features (i.e., lexico-grammatical) commonly used in the two sections, as written in English in Thai journals. Khamkhien was inspired by Swales' CARS model (1990; 2004) and the work by Biber, Conner and Upton's (2007) steps of conducting a move analysis. In the Methods section, five moves types were identified: (a) Move 1: Summarizing research objectives and methods, (b) Move 2: Describing participants/ sources of data, (c) Move 3: Stating research instruments, (d) Move 4: Detailing research/ data collection procedures, and (e) Move 5: Describing data analysis.

The two studies, Khamkhien's (2015) and Peacock (2011), had some agreement in terms of results. The Methods section in Khamkhien's (2015) study was partly in line with Peacock (2011) and Lim (2006). In Peacock's study, the typical functions of the five moves were found to be in agreement with the ones presented in Khamkhien's (2015). In addition, the three move types identified in Cotos, Huffman, and Link's (2017) study were partly corroborated with the ones appearing in Lim's (2006) study in the discipline of management.

**Results section.** The Results section reports and describes the results of research experiment, leaving the discussion of the findings to Discussion section. The Results and

the Discussion sections, and occasionally the Conclusion section, are sometimes

coalesced together. Swales and Feak (2004) asserted that the distinction between the

Results and Discussion sections is not as sharp as commonly believed. However, Ruiying

and Allison's (2003) analysis of the three sections (i.e., Results, Discussion, and

Conclusion) revealed that the Results, Discussion and Conclusion sections of applied

linguistics RAs differ in terms of primary communicative purposes. For analysis of the

Results section, two models are commonly used to scrutinize rhetorical moves of the this

section: Brett's (1994) cognitive genre model and CARS model. The same models could

be applied to analyze the Discussion section. In addition, Ruiying and Allison (2003) also

proposed a model to analyze the Results section of research in the field of applied

linguistics.

 ***Previous studies in Results section.*** In an empirical study, Ruiying and Allison

(2003) investigated the relationships between Results, Discussion, Conclusion and

Pedagogical Implications' sections in the field of applied linguistics. The study intended

to investigate the relationship between the section headings and communicative purposes,

along with the rationales behind the differences in section headings. The authors adopted

a two-level Move and Step analysis to investigate the structure of the Results, Discussion,

and the other closing sections. The corpus comprised 20 empirical RAs including the

Results, Discussion, and other following sections drawn from four reputed journals in

applied linguistics; *Applied Linguistics* (APP), *TESOL Quarterly* (TESOL), *English for

Specific Purposes* (ESP) and *English Language Teaching Journal* (ELT). The results

indicated several frameworks for each section, which are summarized in Table 2. See

Appendix A for the complete list of the models employed in the current study.

Table 2: Ruiying and Allison's (2003) four models for the Results, Discussion, Conclusion and Pedagogical Implications sections

| Results | Discussion |
|---|---|
| **Move 1**—*Preparatory information,* | **Move 1**—*Background information,* |
| **Move 2**—*Reporting results,* | **Move 2**—*Reporting results,* |
| **Move 3**—*Commenting on results,* | **Move 3**—*Summarizing results,* |
| **Move 4**—*Summarizing results,* | **Move 4**—*Commenting on results,* |
| **Move 5**—*Evaluating the study,* | **Move 5**—*Summarizing the study,* |
| **Move 6**—*Deductions from the research.* | **Move 6**—*Evaluating the study,* |
| | **Move 7**—*Deductions from the research* |
| **Conclusion** | **Pedagogical implications** |
| **Move 1**— *Summarizing the study,* | **Move 1**— *Summarizing the study,* |
| **Move 2**— *Evaluating the study,* | **Move 2**— *Dealing with pedagogic issues,* |
| **Move 3**— *Deductions from the research* | **Move 3**— *Evaluating the study,* |
| | **Move 4**—*Deductions from the research* |

The summary of the studies conducted in the Results section revealed that Swales' CARS model can be used to analyze Results and Discussion sections (Lim, 2010, 2011). While Ruiying and Allison (2003) proposed very comprehensive frameworks for Results, Discussion, Conclusion, and Pedagogical Implication sections, Pojanapunya and Todd (2011) decided to develop their own procedures of analysis. In regards to similarities among these studies, the results in Pojanapunya and Todd's (2011) study were consistent with Ruiying & Alison (2003) in terms of Move 3 (commenting on results), which was found to be the most frequent communicative move in the discussion section.

**Discussion section.** The Discussion section offers an increasingly comprehensive account of what has been learned in a study and goes deeper into the topic through

analysis. Derntl (2014) identified several rhetorical purposes for the Discussion section, some of which are to provide a brief summary of the results with detailed discussions and explanations, recapitulate the study's aims, and compare and contrast the results with previously published studies. When the Discussion section is combined with the Conclusion section, the purposes are extended to include a summary of evidence for each conclusion or hypothesis drawn from the results, implications for audiences in the discourse community, and recommendations for future studies. In regards to Discussion section analysis, the Dudley-Evans' (1994) model is commonly employed across disciplines, while the Ruiying and Allison's (2003) proposed model is applicable for the field of applied linguistics.

*Previous studies in Discussion section.* The Discussion section has been widely scrutinized and analyzed by various scholars in different disciplines, especially in applied linguistics (Amnuai & Wannaruk, 2013a; Dobakhti, 2013; Dudley-Evans, 1994; Dujsik, 2008; Fallahi & Erzi, 2003; Jalilifar, Baninajar, & Saeedian, 2015; Khany & Tazik, 2010; Le & Harrington, 2015; Ruiying & Allison, 2003; Swales, 1990). Holmes (1997) and Peacock (2002) acknowledged that the most comprehensive description of moves in a RA discussion section is found in Dudley-Evans's (1994) model.

In a pioneering work, Dudley-Evans (1994) developed a model for the analysis of the Discussion sections of master's theses in science. The model is considered the most comprehensive and reliable paradigm for conducting genre analysis in the Discussion section because it has been used in several studies across various disciplines, such as biochemistry, physics, biology, business, language and linguistics (Dujsik, 2008; Kanoksilapatham, 2005; Peacock, 2002; Posteguillo, 1999). The model comprised nine-

moves in the Discussion section: Move 1 Information move, Move 2 Statement of result, Move 3 Finding, Move 4 (Un)expected outcome, Move 5 Reference to previous research, Move 6 Explanation, Move 7 Claim, Move 8 Limitation, and Move 9 Recommendation.

By using Ruiying & Allison's (2003) seven-move model, Amnuai and Wannaruk (2013a) carried out a genre analysis to investigate the rhetorical move structure of RAs Discussion (RADs) section in the field of applied linguistic published in Thai and international journals. The study comprised 60 English RADs, 30 published in English-language Thai journals and 30 published in international journals. The results indicated similarities and differences between the two corpora in terms of the move structure and occurrence. That is, Move 4 (commenting on results) was the most recurring move in both datasets; followed by Move 2 (reporting results) and Move 1 (background information). Furthermore, the results did not reveal any move pattern that was linearly ordered. Lastly, the difference between the two corpora relied on Move 7 (deduction from the research) and Move 6 (evaluating the study), in which the former occurred more frequent in Thai dataset, whereas the latter reoccurred in the international dataset.

The aforementioned studies, as well as others, systematically examined the RA Discussion section by implementing various frameworks and models in applied linguistics and related fields. The majority of the studies used Dudley-Evans' model (1994) (Jalilifar, Baninajar, & Saidian, 2015; Jalilifar, Hayati, & Namdar, 2012; Peacock, 2002), followed by Ruiying and Allison's framework (2003) (Amnuai & Wannaruk, 2013a; Le & Harrington, 2015), Swales' (1990) model (Dobakhti, 2013) and, lastly, Peacock's (2002) model (Dujsik, 2008). As a result of the analysis, Peacock (2002) and

Jalilifar, Hayati, and Namdar (2012) proposed modified versions of Dudley-Evans (1994) model.

**Conclusion section.** The Conclusion section is sometimes considered to be a part of the Discussion section depending on the targeted field or journal. Swales and Feak (2004) stated that "[w]e will not distinguish between these two terms, since the difference is largely conventional, depending on traditions in particular fields and journals" (p. 195). However, Ruiying and Allison's (2003) analysis revealed that Results, Discussion, and Conclusions sections, in the field of applied linguistics, differed based on their communicative purposes. The main purpose of the Conclusion section is "to summarize the research by highlighting the findings, evaluating and pointing out possible lines of future research as well as suggesting implications for teaching and learning" (Ruiying & Allison, 2003, p. 380).

*Previous studies in Conclusion section.* There have been a few studies conducted to analyze the Conclusion section across various disciplines: in applied linguistics (Amnuai & Wannaruk, 2013b; Ruiying & Allison, 2003), linguistics (Vuković & Bratic, 2015), Psychology (Adel & Moghadam, 2015), Natural sciences (Aslam & Mehmood, 2014). Furthermore, Morales (2012) also performed a Filipino-Japanese contrastive rhetoric analysis of RAs written in English in the field of applied linguistics.

In one of a few studies in the Conclusion sections across disciplines, Amnuai and Wannaruk (2013b) conducted an analysis on the Conclusion sections of English RAs published in Thai and international journals. The study examined the rhetorical structure of 40 Conclusion sections (20 of each dataset), written by Thai writers in the field of applied linguistics, by using Ruiying and Allison's (2003) three-move model. The results

revealed all three moves of the proposed model frequently occurred in the two corpora but with differences in their frequency of occurrence. That is, Move 1 (Summarizing the study) was the most recurring move in both corpora, while Move 2 (Evaluating the study) and Move 3 (Deductions from the research) had a higher occurrence in the international corpus as compared to the Thai corpus.

    **Studies in Complete RAs (IMRDC).** Despite the few studies that had analyzed and proposed models for complete RAs in applied linguistics, Ruiying and Allison (2004) conducted a genre analysis to discover the macrostructures of RAs in applied linguistics. The analysis involved 40 RAs (20 primary RAs, and 20 secondary) drawn from four leading journals in the mid-1990s, namely *Applied Linguistics* (APP), *TESOL Quarterly* (TESOL), *English for Specific Purposes* (ESP) and *English Language Teaching Journal* (ELT). The Introduction-Methods-Results-Discussion (IMRD) framework was used to analyze RAs in the datasets at a macrostructure level. The findings for primary RAs (e.g., experimental research) in the corpus showed how they both drew upon and varied from the conventional framework. The macrostructure framework contained the following format: Introduction-Theoretical Basis, Literature Review, and Research Questions-Method-Results-Discussion-Conclusion-Pedagogical Implications (IMRD). For secondary RAs (e.g., theoretical research), the macrostructure framework included: Introduction- Theoretical Basis -Argumentation - Pedagogical Implication/Application – Conclusion.

    In addition, Pho (2008a) investigated the complete rhetorical structure of the RAs in the fields of applied linguistics and educational technology. The foremost aim of the study was to examine the rhetorical structure of RAs as a whole, Abstract-Introduction-

Method-Results-Discussion-Conclusion. The corpus comprised 40 published articles from four prestigious journals in applied linguistics (i.e., *The Modern Language Journal* [MLJ] and *TESOL Quarterly* [TQ]) and educational technology (i.e., *Computers & Education* [CE] and the *Journal of Computer Assisted Learning* [JCAL]). The findings represented several differences in the structure of different sections and also differences between the two disciplines. The prototypical functions and typical strategies of each function in RAs from the two disciplines is summarized in Table 3 (Pho, 2008a, p. 8).

Table 3: Pho's (2008a) model for analyzing a complete RA (p. 8)

| Moves/Steps | Moves/Steps |
|---|---|
| **ABSTRACT** | **RESULTS (or Results-Discussion)** |
| **Move 1:** Presenting the research | **Move 1:** Preparing for the presentation of results |
| **Move 2:** Describing the methodology | Step 1: (Re)stating data collection and analysis procedure |
| **Move 3:** Summarizing the findings | **Move 2:** Reporting specific / individual results |
| **Move 4:** Discussing the research | **Move 3:** Commenting on specific results |
| | Step 1: Interpreting results |
| INTRODUCTION | DISCUSSION-Conclusions (or CONCLUSIONS) |
| **Move 1: Establishing a territory** | **Move 1: Preparing for the presentation of the discussion section** |
| Step 1: Summarizing existing studies | Step 1: Giving background knowledge |
| Step 2: Drawing inferences from previous studies | **Move 2: Highlighting overall research outcome** |
| **Move 2: Establishing a niche** | **Move 3: Discussing the findings of the study** |
| Step 1: Indicating a gap | Step 1: Interpreting / discussing results |
| **Move 3: Presenting the present work** | Step 2: Comparing results with literature |
| Step 1: Announcing present research descriptively and/or purposively | Step 3: Accounting for results |
| Step 2: Presenting research questions or hypotheses | **Move 4: Drawing conclusions of the study / Stating research conclusions** |

| | Move 5: Evaluating the study |
| --- | --- |
| METHODS | Step 1: Indicating limitations |
| **Move 1: Describing data collection procedure** | **Move 6: Deductions from the research** |
| Step 1: Describing the sample | Step 1: Making suggestions / drawing |
| Step 2: Describing research instruments | implications |
| Step 3: Recounting steps in data collection | Step 2: Recommending further research |
| Step 4: Justifying the data collection | |
| procedure | |
| **Move 2: Describing data analysis procedure** | |
| Step 1: Recounting data analysis procedure | |

The Pho's (2008a) and Ruiying and Allison's (2004) frameworks are among the well-developed frameworks to analyze complete research articles at a macrostructure level. Fazilatfar and Nasri (2014) used Pho's (2008a) model and reported that the order of moves in the majority of articles they examined was found to be in agreement with Pho's model. While the widespread IMRD conventional model is employed and evaluated in several studies within various disciplines, Ruiying and Allison's (2004) model, proposed to analyze secondary RAs (e.g., theoretical research), needs more studies to evaluate its reliability, appropriateness, and effectiveness.

**Current Status of Genre Analysis Studies in Saudi Arabia**

The notion of ESP genre analysis in Saudi Arabia has not yet attracted researchers' and experts' attention. Only a small number of studies on RAs genre analysis were found after an extensive online search in various journals and databases. The search for relevant articles was also conducted in journals and databases published in Saudi Arabia. Consequently, the search identified only a handful of studies; two of the studies were doctoral dissertations (Alotaibi, 2013; Al-Qahtani, 2006) and five research articles

(Alhuqban, 2012; Alhuqbani, 2013; Alotaibi, 2015; Alotaibi & Pickering, 2013; Fallatah, 2016).

In Saudi Arabia, Alhuqbani (2013) carried out an analysis to identify the rhetorical structures and the verb tense of each move of RA abstracts across four disciplines in Arabic: law, linguistics, medicine, and police. The corpus involved 40 Arabic abstracts (10 abstracts from each discipline). Bhatia's (1993) four-move structure and Hyland's (2000) five-move structure were utilized to conduct the analysis. The findings indicated that these four disciplines varied in the number of moves mentioned in the two models. For instance, abstracts in medicine followed the rhetorical convention of either Bhatia's or Hyland's model. In law, linguistics, and police, abstracts reported no conventional move structure. In regards to the preferred verb tense, present tense usage was found in the introduction, purpose, and conclusion moves, whereas past tense usage found was in the methods and results moves.

Alqahtani (2006), in his doctoral dissertation to investigate the contrasting rhetoric between Arabic and English RA introductions, examined 15 RA Introductions and divided them into three groups: Arab-educated Arabs, Arabs educated in the U.S., and U.S. Native English speaking group. The Swales' (1990) CARS model was implemented to carry out the genre analysis at two levels, the macrostructure level and the Move step level. The findings indicated two models of rhetorical organization of Arabic RA Introductions: a homegrown model and a hybrid model. Comparisons and contrasts were made among the three groups. That is, the differences among the three groups were found to be much greater than the similarities in terms of the macrostructure level and the Move step level. Furthermore, in regards to differences at the

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macrostructure level, the U.S. native English speaking group employed all three moves in all five Introductions, whereas the other two Arabic groups showed some variations. In addition, many Move step level differences were found between the two Arabic groups on the one hand and the U.S. native English speaking group on the other. For instance, unlike the U.S. educated Arabs and U.S. native English groups, the Arab-educated Arabs' group avoided establishing a niche or criticizing others' work. Alqahtani attributed this avoidance to the influence of the educational background, that is, the cross-cultural influence of U.S. writing traditions. In comparison, the U.S. educated Arabs' group not only established a niche similar to the U.S. native English group, but they also established it by referring to research studies carried out in the United States.

In a similar doctoral study, Alotaibi (2013) investigated the relationship between RA abstracts and introductions in Arabic and English in two disciplines—educational psychology and sociology. The corpus involved 40 RA abstracts and introductions (20 from each discipline). The author employed two models: Hyland's (2000) model for the abstracts, and the modified version of Swales' CARS model (Swales, 2004) for the introductions and the abstracts. The results revealed several variations across languages and disciplines. As for the relationship between abstracts and introductions, the analysis reported that Move 3 (Presenting the present work) was the most shared move between the two sections in both disciplines and both languages.

As for a cross-disciplinary study, Alotaibi and Pickering (2013) examined 20 Arabic RA introductions written by Arab writers educated in the Arab world, in the fields of educational psychology and sociology. The purposes of the study were to observe how literature review, research gap, and the presentation of the study were articulated in RA

introductions. Following Swales' (1990) CARS model, the findings showed that the three rhetorical moves in Arabic research introductions were considerably different from those in American English counterparts, in light of the CARS model. For instance, Move 2 (Establishing a territory) was never used to critique the previous studies.

In a cross-cultural analysis, Alhuqban (2012) examined the rhetorical structures of RA Abstracts in police and security sciences and across two languages, Arabic and English. The corpus encompassed 30 Arabic Abstracts and 30 English Abstracts drawn from police and security journals. The author employed three models: Swales' (1990, 2004) modified CARS, Bhatia's (1993) four-move structure, and Hyland's (2000) five-move structure. The results reported similarities and differences between both corpora. As for similarities, the results indicated that most of the Abstracts in Arabic and English followed Hyland's (2000) first four moves—introduction, purpose, method and results— and also Bhatia's (1993) first three moves—purpose, method and result. As an example of differences, in Swales' model, the Abstracts in both languages did not use all moves.

In a comparative study, Alotaibi (2015) investigated 44 paired abstracts (Arabic and English) published in English RAs, in the *Arab Journal for the Humanities*, by Arab scholars in the linguistics field. The main purpose was to detect how Arab writers employed meta-discourse while writing in both their native language and in English. With Hyland's (2005) model, the findings indicated that the interactive markers (i.e., transitions, frame markers, endophoric markers, evidentials, code glosses) were employed more when compared to the interactional markers (i.e., hedges, boosters, attitude markers, self-mentions, engagement markers) in both sets of abstracts. For instance, transition markers were the most used in the interactive sub-type in the Arabic

corpus as compared to the frame markers used in the English set. As for the interactional markers, English texts employed more markers than Arabic texts. Further revealed in the findings was that the two sets of abstracts demonstrated evident homogeneity in terms of the rhetorical organization.

Recently, Fallatah (2016) conducted a comparative genre analysis of Saudi English RA abstracts, within a World Englishes (WE) perspective, and aimed to identify the linguistic features of the abstracts. The data encompassed three corpora: English RA abstracts written by Saudi writers, English RA abstracts written by international writers, and Arabic RA abstracts written by Saudi writers. The author employed Swales and Feak's (2009) five-moves CARS model to analyze the RA abstracts. The analysis revealed that Saudi English RA abstracts differed from the English international RA abstracts in several aspects, such as "showing more move presence fluctuation; verbosity; move cyclicality; excessive use of citation, acronyms, and listings; and multi-paragraphing" (p. 368).

There is a significant gap in genre analysis and corpus linguistics studies in Saudi Arabia, especially in the field of linguistics and applied linguistics. The literature indicated that one of the seven studies focused on contrastive rhetoric between Arabic and English (Alqahtani, 2006 – Arabic and English RA introductions); four studies carried out comparative analyses (Alhuqbani, 2012 – RA abstracts in Arabic and English; Alotaibi, 2013 – RA abstracts and introductions in Arabic and English; Alotaibi, 2015 – paired language abstracts; Fallatah, 2016 – Arabic and English RA abstracts); and two investigated Arabic research articles (Alhuqbani, 2013 – RA abstracts; Alotaibi & Pickering, 2013 – RA Introductions). Evidently, more empirical studies are needed to

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bridge the current gap. The present study aims to address this dearth of genre analysis and corpus linguistics studies in English-language RAs published in Saudi Arabia, by comparing the rhetorical structure and lexical bundles of English-language RAs (Introduction-Methods-Results-Discussion-Conclusion [I-M-R-D-C]) sections published in local Saudi and international journals in the field of applied linguistics. This study further intends to help novice writers and university students, particularly graduate students, to better read and write research articles, and to be more effective in communicating with the international discourse community. Lastly, the present study hopes to build genre knowledge (Tardy, 2009) and increase student writers' consciousness of move structures and linguistic features in the RAs.

The following section presents an explanation of the second part of the literature, that is, using corpus linguistics to analyze lexical bundles.

**Corpus Linguistics (CL)**

The term *corpus* is a Latin word which, in academia, refers to a collection of written or spoken material in machine-readable form (Biber *et al*., 1999). Establishing a definition for *corpus linguistics* has been an issue due to the multifaceted nature of the term; is it a methodology, a paradigm, a tool, a conceptual theory, or none or all of these? According to Biber, Conrad, and Reppen (1998), corpus linguistics is an empirical methodology that employs a large, systematically organized body of natural texts (the corpus) to analyze actual patterns of language use. In addition, Gries (2006) considers CL "a major methodological paradigm in applied and theoretical linguistics" (p. 191). Similarly, Leech (1992) describes CL as a new paradigm, in which he argues that "computer corpus linguistics defines not just a newly emerging methodology for studying

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language, but a new research enterprise, and in fact a new philosophical approach to the subject" (p. 106). Stubbs (1993) rejects the limited definition of corpus linguistics as a methodology, however, as he notes that "a corpus is not merely a tool of linguistic analysis but an important concept in linguistic theory" (pp. 23–24). Lastly, Teubert (2005) also asserts the notion of theoretical conceptualization and describes corpus linguistics as "a theoretical approach to the study of language" (p. 2).

**Corpus linguistics and genre analysis.** Corpus linguistics has been used for descriptive or pedagogical purposes in the fields of ESP/EAP. In particular, CL has been incorporated in genre analysis studies to distinguish between genres and to study the characteristics of individual genres (Chang & Kuo, 2011; Rutherford, 2005; Swales, 2002). Findings from the compilation and analysis of specialized genre-based corpora can be beneficial to inform pedagogy in the field of EAP (Flowerdew, 2002). Furthermore, Hyland (2013) also asserts that "students' materials should be based on analyses of representative samples of the target discourse" (p. 105). In combining corpus analysis with genre analysis, the analysis of target-genre texts allows for the development of authentic research-supported learning materials, which comprise linguistic features such as lexical bundles (Chang & Kuo, 2011).

## Overview of Lexical Bundles

The term *lexical bundles* was used for the first time in the *Longman Grammar of Spoken and Written English* (Biber *et al*., 1999), where it was defined as "recurrent expressions, regardless of their idiomaticity, and regardless of their structural status" (p. 990). Similarly, Hyland (2008b) refers to lexical bundles as "words which follow each other more frequently than expected by chance, helping to shape text meanings and

contributing to our sense of distinctiveness in a register" (p. 5). Such examples of lexical

bundles are phrases such as: *as a result of*, *it should be noted that*, and *as can be seen*.

The definition of lexical bundles provides criteria to consider any group of words as

bundles: how recurrent or frequent a bundle should be, and how widely it should be used

(i.e., in how many texts should these groups of words should appear) (Yoon & Choi,

2015). In addition, these groups of words are not structurally complete and not idiomatic

in the meaning for which they serve important discourse functions, in both spoken and

written texts (Biber, 2009; Biber et al., 1999).

  In the research literature, word co-occurrences and word combinations have been

studied and described under different labels such as *recurrent word combinations*

(Altenberg, 1998), *lexical bundles* (Biber *et al*., 1999; Biber & Conrad, 1999), *formulaic*

*sequences* (Schmitt & Carter, 2004), *n-grams* (Banerjee & Pedersen, 2003), *prefabricated*

*patterns* (Granger, 1998), *formulas* (Sinclair, 1991; Wray, 2002), *clusters* (Hyland,

2008a; Schmitt et al., 2004), *phrasal lexemes* (Moon, 1998), *prefabs or lexical phrases*

(Nattinger & DeCarrico, 1992), to name a few.

  It is essential then for writers and readers, who regularly participate in a particular

discourse community, to become aware and familiar with lexical bundles, thereby leading

to competent participation in a given community. On the other hand, Hyland (2008b)

pointed out that the absence of lexical bundles (i.e., clusters) might reveal the lack of

fluency in a novice or newcomer to the targeted community. In other words, to become

proficient and an expert in a certain register, one needs to gain control of formulaic

language preferred in that register. Tremblay, Derwing, Libben, and Westbury (2011)

found that sentences containing lexical bundles, such as *in the middle of the*, were

processed faster and were more accurately recalled than matched sentences containing less frequent strings, such as *in the front of the* (Wray, 2012). Mastery of academic lexical bundles is crucial if an individual wishes to succeed as an academic writer within a discourse community.

    **Classification of lexical bundles.** To help learners become aware of the use of lexical bundles, it is necessary to identify their structural and functional characteristics (Dontcheva-Navratilova, 2013). Research into lexical bundles follows the pioneering work of Bengt Altenberg (1993, 1998), who created the methodology to identify frequency defined recurrent word combinations, and who combined grammatical and functional analysis in categorizing them (Hyland, 2008b). Since then, a number of classifications and taxonomies have been established by several scholars (e.g., Altenberg, 1998; Biber, 2006; Biber & Barbieri, 2007; Cortes, 2004; Hyland, 2008c). They identified frequency-based recurrent word sequences and analyzed them in terms of grammatical structures and discourse functions.

    Most studies employed the taxonomies developed by Biber *et al*. (1999) or their slightly modified versions, in the 2004 study, with subcategories added or merged (Yoon & Choi, 2015). Biber *et al*.'s (1999) taxonomy classified lexical bundles in terms of *structure patterns* into three categories: (a) noun phrase-based (NP) followed by a part of a modifier, often an *of*-prepositional phrase (e.g., *the end of the, the extent to which*); (b) prepositional phrase-based (PP) followed by prepositional or clausal elements (e.g., *at the end of, of the things that*); and (c) verb phrase-based (VP) bundles that includes passive voice, anticipatory *it* structures and dependent clause fragments (e.g., *is assumed to be, can be seen as*) with each having multiple subcategories. Biber (2006) later adds a fourth

category to refer to longer clausal structures that often function as politeness formulae as in—*as well as the, thank you very much, what are you doing, have a nice day*. In terms of *discourse functions*, Biber *et al*. (1999) point out three major categories: referential bundles, stance bundles, and discourse organizers.

In the field of academic writing, Hyland (2008c) modified Biber *et al*.'s (1999) taxonomy in order to serve studies of lexical bundles specifically designed for academic writing. Similar to Biber *et al*., Hyland (2008c) provided a list of structural patterns of lexical bundles in academic writing. With regard to discourse functions, bundles comprised three broad types:

> • Research-oriented (ideational), which help writers to structure their activities and experiences of the real world (e.g., *at the beginning of*, *in the present study*)
>
> • Text-oriented (textual), concerned with the organization of the text and its elements as a message (e.g., *on the other hand*, *these results suggest that*)
>
> • Participant-oriented (interpersonal), which focus on the writer or reader of the text (e.g., *may be due to*, *it is possible that, should be noted that*) (Hyland, 2008c, pp. 13–14).

The threshold frequency, which determines the number of bundles and the length of word strings to be analyzed (usually referred to as n-gram) is not limited to specific numbers (Biber, 2009; Hyland, 2012; Yoon & Choi, 2015). The research literature has shown the threshold frequency ranging from 10 (Biber, 2006; Biber et al., 1999; Simpson-Vlach & Ellis, 2010) to 20 (Cortes, 2004, 2013, Hyland, 2008a, 2008c) to 40 times per million words (Biber, Conrad, & Cortes, 2003). As for the n-gram, though different lengths ranging from bigram to six-gram have generally been investigated, the four-gram

sequences, in particular, are considered the most frequently used because they are believed to produce a sufficient variety of structures and functions to analyze (Biber, 2009; Hyland, 2008c). As Hyland (2012) stated, three-word bundles are extremely common and tend not to be very interesting, while 5-grams and 6-grams are comparatively rare and often subsume shorter ones. According to Biber (2009), lexical bundles of any length can be analyzed, but only four-word sequences were considered in the more detailed analyses. In fact, Biber et al. (1999) suggested that four-word bundles and above "are more phrasal in nature and correspondingly less common" (p. 992).

Another identifying characteristic is that a multi-word sequence must occur in a specified number of files in the corpus to be counted as a lexical bundle, usually referred to as dispersion. The common cut-off requirement ranges from three to five texts (consistent with Biber & Barbieri, 2007; Cortes, 2004) or 10 percent of texts (Hyland, 2008c) to guard against idiosyncratic uses by individual speakers or authors. In a nutshell, the frequency and dispersion consensus adopted vary from study to study, and even the sizes of corpora and sub-corpora differ drastically, ranging from around 40,000 words to more than 5 million words (Chen & Baker, 2010).

**Research on lexical bundles.** Over the last three decades, an extensive body of research has employed corpus linguistics to explore the linguistic features of spoken and written registers (see Biber & Gray, 2015). Among these studies, lexical bundles have been widely explored (Biber, 2009; Cortes, 2004, 2013; Hyland, 2008c; Pan, Reppen, & Biber, 2015). Most of the previous research followed the frameworks, established by Altenberg (1998) and Biber *et al*. (1999) in their seminal studies, that identified frequency-based recurrent word sequences and analyzed them in terms of grammatical

structures and discourse functions (Yoon & Choi, 2015). Subsequently, numerous studies have employed lexical bundles to describe expressions typical of different registers in different countries (see Ädel & Erman, 2012; Amnuai, 2012; Cortes, 2004; Jalali, 2013, 2015; Öztürk & Köse, 2016), focusing on variations across registers (see Biber & Barbieri, 2007; Hyland, 2008c, 2012), and describing the discourse functions served by different types of lexical bundles (see Biber & Barbieri, 2007; Chen & Baker, 2010; Cortes, 2013).

Altenberg (1998) is considered to be, perhaps, the first researcher to study recurrent word combinations using empirical-based methods with spoken texts in the London-Lund Corpus. His seminal contributions to the field of corpus linguistics were: 1. creating the methodology to identify frequency-defined recurrent word combinations, and 2. combining grammatical and functional analysis in categorizing them (Hyland, 2008c). Altenberg (1998) defines recurrent word-combinations as "any continuous string of words occurring more than once in identical form" (p. 101). Later that year, Altenberg analyzed the fixed word combinations in the London-Lund Corpus and discovered that the conventionalized language in spoken discourse encompassed ubiquitous and varied characters (i.e., expressions). Additionally, he noted that prefabricated expressions represent much of our everyday language (Altenberg, 1998).

In a pioneering work in the field of corpus linguistics, Biber et al. (1999) analyzed a corpus of more than 40 million words of written and spoken American and British English, and then produced the *Longman Grammar of Spoken and Written English* (LGSWE) *Dictionary*. The LGSWE provided a comprehensive description and empirical analysis of language patterns in actual use. Yielding in quantitative results, the

grammatical patterns were verified and functionally interpreted by the linguists. Biber and Reppen (2002) emphasized that the corpus-based approach of LGSWE adds a new dimension to knowledge about English grammar. LGSWE was further developed by Biber and Conrad in 1999 (Cortes, 2004). In a conversation prose, Biber *et al*. found that clausal lexical bundles, as in the type (pronoun) +Verb+ (complement) (e.g., *I want you to* and *it is going to be*) are the most frequent bundles. On the other hand, in academic prose, 60% of the bundles are phrasal, parts of noun phrases, or prepositional phrases (e.g., *in the case of* and *as a result of*) (Biber et al., 1999; Cortes, 2004).

To learn about disciplinary variations in four-word lexical bundles, Hyland (2008c) explored the form, function, and structure of the most frequent four-word lexical bundles in a corpus of research articles, doctoral dissertations, and master theses across four disciplines—electrical engineering, microbiology, business studies, and applied linguistics. *WordSmith* Tool developed by Scott (Scott, 1996) was used to generate four-word bundle lists. The results indicated that writers across different fields used a variety of discipline-specific lexical bundles to "develop their arguments, establish their credibility and persuade their readers" (Hyland, 2008c, p. 19).

In an attempt to address difficulties in previous methodologies of genre analysis following Swales (1990) and Bhatia (1993, 2004), Hüttner (2005) proposed a new approach toward the study of "extended" genre analysis, which she terms as *genre-functional formulaic sequences*. The new approach combined elements of genre analysis and research into formulaic language. Specifically, by extending the existing parameters of genre analysis to include a specific focus on the use made of formulaicity, extended genre analysis hoped to shed more light on these patterns of use. In addition, Hüttner

believed that limiting concordance searches to corpora of specific genres can reveal clusters (i.e., formulaic sequences) typical of these genres.

In the United Kingdom, Chen and Baker (2010) compared the use of lexical bundles in academic writing produced by native-speakers and non-native speakers in order to reveal the potential problems in second language learning. The corpus tool used to identify lexical bundles was called *WordSmith 4.0* (Scott, 2007). The study encompassed three corpora. First, the Freiburg-Lancaster-Oslo/Bergen (FLOB-J) corpus was used to represent native expert writing, which was excerpted from published academic texts. The other two sub-corpora were derived from the British Academic Written English (BAWE) corpus; including BAWE-CH which contains essays produced by L1 Chinese students of L2 English, and BAWE-EN which is a comparable dataset contributed by peer L1 English students. Drawing on the analysis of two corpora, the authors found that published academic writing, written by experts, was found to exhibit more range of NP-based bundles and referential markers than L2 student writing. In addition, non-native and native student essays were similar, where both contain many more VP-based bundles and discourse organizers than native expert writing. Lastly, non-native English writers demonstrated a tendency that seems to be exclusive to L2 writing (e.g., favoring certain idiomatic expressions and connectors).

In Sweden, Adel and Erman (2012) carried out a quantitative analysis of the use of four-word lexical bundles, and a qualitative analysis of the functions they serve in English-language academic writing of advanced Swedish undergraduate university students. The purpose of the study was to compare lexical bundles, both structurally and functionally, with those of British native speakers to ascertain possible similarities and

differences. The lexical bundles were retrieved through *WordSmith's* tool (Scott, 2007). The results demonstrated that native speakers used a prevalent number of lexical bundles more than those of non-native students.

In China, Shi (2014) compared the rhetorical structure and linguistic features (i.e., lexical bundles) of English-language research articles published in local Chinese journals with the ones published in international journals in the field of agriculture science. Both corpora were analyzed using Kanoksilapatham's (2005) model. The findings indicated the local and the international journals share similar rhetorical structures, with some discrepancies in the Introduction and Discussion sections. The results also revealed that the international corpus encompassed a greater number of lexical bundles than those used in the local corpus.

In Thailand, Amnuai (2012) performed a genre analysis to discover rhetorical variation and formulaic sequences of research articles published in local Thai journals with the ones published in international journals, in the field of applied linguistics. The author employed three models to analyze both corpora: Swales (2004), Lim (2006), and Yang and Allison (2003). The analysis indicated that the rhetorical structures of Thai journals were similar to their international counterparts, however, move structure and move cyclicity (i.e., move reversal [for more on this see Santos, 1996]) were rather different in some sections. Furthermore, the international corpus had higher formulaic sequences than those in the Thai corpus.

Recently, in Turkey, Öztürk and Köse (2016) analyzed the use of lexical bundles in the field of foreign language teaching; in terms of frequency, functions and structures. The authors developed three different corpora: Turkish postgraduate students' MA/PhD

theses, Native postgraduate students' MA/PhD theses, and native scholars' research articles, all written in English. Four-word lexical bundles were identified using *WordSmith* Tools. After completion of the analysis, it was seen that Turkish postgraduate students employed a higher number of lexical bundles when compared to both native students and scholars. However, Turkish postgraduate students overused most of the lexical bundles. For instance, 42 bundles were found to be overused by Turkish postgraduate students; twenty-seven of the 42 bundles were not shared with native English postgraduate students and scholars, and were then argued to be "unique to Turkish students" (e.g., *it can be said that* and *it was seen that*) (p. 161). The analysis also revealed that 32 bundles were overused and 9 bundles were underused by native postgraduate students. Lastly, native scholars overused 46 bundles and underused seven bundles.

As shown above, lexical bundles have been used not only to analyze the characteristics of language for different communicative types and purposes, but also to achieve pedagogical objectives in academic writing (Byrd & Coxhead, 2010). For instance, Biber *et al*. (1999) analyzed lexical bundles among newspaper prose, academic writing, conversational English, and fiction. Similarly, Biber & Barbieri (2007) investigated the use of lexical bundles in a wide range of spoken and written university registers, including both instructional and student advising or management registers. In academic prose, Cortes (2004) explored lexical bundles in graduate students and published writing in history and biology. Furthermore, Hyland (2008b) analyzed lexical bundles in samples of published writing compared with student writing (i.e., dissertations and master's theses) to investigate differences among disciplines. These studies indicate

that writers in different fields draw on different resources to develop their academic writing by using various linguistic features (e.g., lexical bundles) related to the targeted discourse community.

In addition, lexical bundles studies have been carried out in various contexts, with most of Biber and his colleagues' work having been done in the United States. Likewise, in the United Kingdom, among several studies, Chen and Baker (2010) compared the use of lexical bundles in native-speaker's and non-native speaker's (i.e., Chinese students) academic writing. In China, Shi (2014) conducted a comparative analysis of the lexical bundles in English research articles' abstracts published in international and China's journals. In Turkey, Öztürk and Köse (2016) investigated the use of lexical bundles in the field of foreign language teaching, in terms of frequency, functions, and structures. In Iran, Jalali (2013) explored differences or similarities between master theses and doctoral dissertations in terms of lexical bundles in the field of applied linguistics. Lastly, in Sweden, Adel and Erman (2012) executed a quantitative and qualitative analysis of the use of four-word lexical bundles in the corpus of advanced Swedish undergraduate university students. These studies' findings supported the potential roles that lexical bundles can play in teaching academic writing. The frequency-driven formulaic expressions found in native expert writing can be of great help to student writers in achieving a more genre-appropriate style of academic writing, and thus should be integrated into ESL/EFL curricula. The next section introduces the present research study which aims to expand our understanding of the characteristics of research articles, by the integration of move analysis and corpus-driven approach.

**Introduction to the Present Research**

Among all the studies previously mentioned, an apparent gap has unfortunately emerged. That is, genre-based studies and corpus studies' (i.e., corpus-driven approach) investigations of English usage in Saudi Arabia are still relatively underexplored. The serious lack of information about the current status of genre and corpus studies of RAs, published in local Saudi journals, calls for immediate attention of genre analysts and discourse analysts to prepare a research agenda to further explore this issue. In genre studies, as stated earlier in this review, there has been a handful research articles that investigated move structure of Introduction and Abstract sections through comparative and contrastive rhetoric analysis (i.e., Arabic-English). Studies in the corpus linguistics field has not yet been investigated in Saudi Arabia. Therefore, researchers, as well as graduate students, in Saudi Arabia need to place much effort into investigating these two areas. In addition, the lack of information about the number of local Saudi journals specialized in applied linguistics necessitates the need to explore the quantity of journals available for Saudi and non-Saudi writers to publish their articles locally. Indeed, a considerable amount of research has been carried out to analyze the schematic structure of English RAs published in prestigious journals as listed in Journal Citation Reports. However, little research has focused on the rhetorical structure of RAs published in local journals (i.e., Saudi Arabia).

Due to the increasing awareness of the significance of genre and corpus-oriented research in English non-native settings, the principal objective of the present study is to raise awareness of the pedagogical implications of building genre knowledge (Tardy, 2009) and corpus linguistics (e.g., lexical bundles) for academic writing in the field of applied linguistics, especially in Saudi context. Another objective of this study is to

provide a valuable resource for practitioners in the fields of English for Academic Purposes or English for Specific Purposes. What remains is how to bridge, or at least, minimize the current gap.

In brief, the present study aimed to compare the rhetorical structure and lexical bundles of English-language Research Articles with complete Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C) sections published in local Saudi and international journals in the field of applied linguistics. To achieve this purpose, both genre-based and corpus-driven approaches were conducted. Hopefully, non-native English speaking writers, especially Saudi writers, will be provided with beneficial strategies of how they can structure a research article and employ particular lexical bundles in the field of applied linguistics, starting from the Introductions through to the Conclusions section.

**Summary of the Chapter**

This chapter has provided a concise review of genre analysis and its frameworks from different perspectives and schools (i.e., the Australian or Sydney School, the New Rhetoric Genre Studies, and English for Specific Purposes School). The review has covered previous research related to rhetorical moves analysis in research articles in a variety of aspects and disciplines, especially in applied linguistics. The literature of the aforementioned studies pointed out cross-disciplinarily, cross-linguistically, and cross-culturally rhetorical variations among research articles. Furthermore, in the genre of research articles, each section in the Introduction-Methods-Results-Discussion (IMRD) structure requires a precise analysis due to different communicative and rhetorical

purposes found in each section. The review of the literature on lexical bundles and of previous studies focusing on this particular issue are also presented.

English research articles, derived from the corpora of the local Saudi and the international journals in the field of applied linguistics, are analyzed in the present study in two phases: move analysis and corpus-driven approach. The methodology and the two phases proposed in the present study are explained, in detail, in the next chapter.

# CHAPTER 3

## METHODOLOGY

The methodology employed in the current study is described in the present chapter. The chapter begins by briefly stating the objectives of the study, followed by the description of the corpora, including the selection of journals and research articles (RAs). A detailed explanation of the two approaches employed to analyze the selected research articles, genre-based and corpus-driven approaches, are provided in the remaining part of the chapter.

### Research Objectives

As mentioned in Chapter One, a comparison of the rhetorical structure and lexical bundles of English RAs, with complete Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C) sections, published in the local Saudi and international journals in the field of applied linguistics is intended with the study. The following questions were addressed:

1. What are the rhetorical moves utilized in articles published in Saudi journals of English applied linguistics, and how do they compare to those published in international journals of applied linguistics?

2. What lexical bundles are utilized in each move of English applied linguistics research articles published in Saudi journals, and how are they similar to or different from those in international journals?

### Research Design

Genre and corpus analyses were employed to investigate the variations between the two corpora of Saudi and international journals. To carry out the analysis, both genre-

based and corpus-driven approaches were conducted. First, the move structures of RAs were determined by using the genre-based approach, in which the RA sections were analyzed: by Swales' (2004) revised three-move Create-A-Research-Space (CARS) model to analyze the Introduction sections, by Peacock's (2011) seven-move model to examine the Methods sections, and by Ruiying and Allison's (2003) models to analyze Results-Discussion-Conclusion sections. Next, the corpus-driven approach (i.e., by using computer software called *AntConc 3.4.3w*) was applied to investigate the lexical bundles associated with each identified move in each IMRDC sections. The process of the analyses in two phases was summarized in Figure 1.

Figure 1: The Two Phases of the Research Design
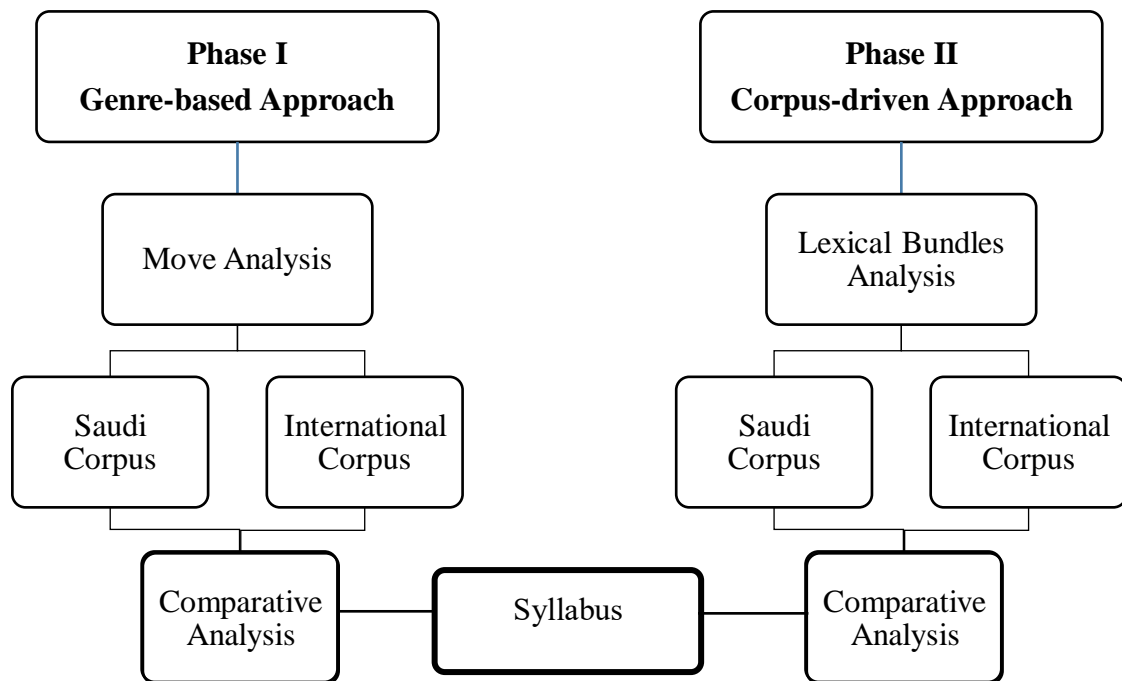


**Description of the corpora.**

The corpora used in the present study focused only on one particular text category, including English-language academic research articles in the field of Applied

Linguistics. Given that the purpose of the present study was twofold: to analyze the rhetorical functions of applied linguistics RAs, and to explore the lexical bundles associated with each identified move, a specialized and systematically compiled corpora are considered to be an advantage (Charles, 2006; Flowerdew, 2005; Koester, 2010). Hunston (2002) provided a very comprehensive definition of specialized corpora as "a corpus of texts of a particular type, such as … research articles in a particular subject…" (Hunston, 2002, p. 14; See Flowerdew, 2004 for more details about specialized corpora). Tribble (2002) argued that large corpora are not suitable for teachers or learners in which large corpora provide "either too much data across too large spectrum, or too little focused data, to be directly helpful to learners with specific learning purposes" (p. 132). In addition, specialized corpora allow for more top-down, qualitative, contextually-informed analysis (Flowerdew, 2004).

When compiling a corpus, Biber, Connor, and Upton (2007) asserted the necessity of ensuring that the corpus represents the discourse domain being studied, and is suitable for the research questions being investigated. The term *representative* means "the extent to which a sample includes the full range of variability in a population" (Biber et al., 2007, p. 243). Variability, here, as mentioned in Biber (1993), refers to two aspects: (a) situational variability which is the range of text types or speech situations available in a population, and (b) linguistic variability which is a range of linguistic distributions in the population. Biber et al., (2007) further emphasized that "when corpora studies have been based on particular sub-corpora, the findings have been much more interpretable" (p. 18).

*Criteria for selecting journals and research articles*. In the present study, a list of criteria for selecting journals and research articles was established to ensure a high degree

of comparability between the international corpora and the Saudi corpora. As for

selecting journals, they had to be chosen based on three criteria: representativeness,

reputation, and online accessibility (Nwogu, 1997). Furthermore, the criteria of selecting

research articles included: (a) the articles needed to follow the traditional conventional

structure of Introduction-Method-Results-Discussion-Conclusion (IMRDC), (b) the

topics discussed in the articles relating to the field of applied linguistics and published

during the years of 2011-2016, and (c) any articles that had specific characteristics

discussed below.

Nwogu (1997) asserted, in detail, that the selection of journals in any discipline,

especially the international ones, needs to follow three criteria: representativeness,

reputation, and online accessibility. According to Nwogu (1997), representativeness

indicates that the journals are carefully and systematically selected to ensure they

represent the language of the members of the targeted discourse community (i.e., applied

linguistics in the present study). In this sense, as stated in Chapter One, Applied

Linguistics is defined by the American Association for Applied Linguistics (AAAL) as

"an interdisciplinary field of inquiry that addresses a broad range of language-related

issues in order to understand their roles in the lives of individuals and conditions in

society." The field of applied linguistics "draws on a wide range of theoretical and

methodological approaches from various disciplines—from the humanities to the social

and natural sciences—as it develops its own knowledge-base about language, its users

and uses, and their underlying social and material conditions."

As for the second criterion, reputation refers to the state of being held in high

esteem and honor, which members of readership hold for the publication of a particular

peer-reviewed journal (Nwogu, 1997). The international journals in the present study were selected on the basis of these journals' rankings in the Journal Citation Reports (JCR) published by the Institute for Scientific Information (ISI). The Journal Citation Reports "offers a systematic, objective means to critically evaluate the world's leading journals, with quantifiable, statistical information based on citation data" (Journal Citation Reports, 2016). The Journal Citation Report further "helps to measure research influence and impact, at the journal and category levels, and shows the relationship between citing and cited journals" (Journal Citation Reports, 2016). The carefully selected international journals were considered the world's leading scholarly journals, as they were ranked at the top in the field of applied linguistics. Lastly, the selected journals could be accessed online via electronic databases or libraries by all researchers.

As for as the selection of research articles, they needed to follow the traditional conventional structure of Introduction-Method-Results-Discussion-Conclusion (IMRDC). To elaborate, this criterion might become complicated if a research article did not have a clear heading for any of the five sections that matched the conventional heading. The main reason for this complication is that different authors might use section headings in different ways, and some of these section headings might not be rhetorically transparent (Ruiying & Allison, 2004). In addition, the literature review section is considered to be under the umbrella of the introduction section, due to the fact that the functions of the literature review (LR) section is typically posited in the introduction section (Bunton, 2002; Dudley-Evans, 1987; Hsiao & Yu, 2012; Kwan, 2006; Swales, 1990). In other words, Move 1 (*Establishing a territory)* and Move 2 (*Establishing a niche*) in the CARS model, which function, respectively, to present topic generalization and to identify what

was done in the author's related topic, suggest that LRs and introductions in research writing belong to the same genre. Therefore, the present study draws on this justification and considers all (sub)sections occurring between the introduction and the methods sections as a part of the introduction section. To deal with the variations in section's headings, other characteristics for the chosen RAs were established. That is to say, the articles with different section labels were included because they met one or more of the following characteristics:

1. The articles contained an Introduction section but may not have had a label, as in the TESOL Quarterly journal;

2. The articles had Methods section but was labeled differently, such as Instruments and Participants of the Study, Research Design and Data Collection;

3. Articles containing a stand-alone Results section but was labeled differently (e.g., Results & Analysis, or Findings of the Study);

4. Articles with a stand-alone Discussion section but labeled otherwise, an in Discussion and Interpretation; and

5. Articles with a Conclusion section but assigned a different label, as in Conclusion and Suggestions, or Conclusion, Recommendations and Caveats.

In addition, the selected articles should be published during the period of 2011-2016 to protect against possible new developments and changes in the rhetorical and generic structure of the different parts of RAs within the field of applied linguistics over a lengthy time period. This was motivated by the paucity of studies that have investigated such modifications in the genre of RAs, especially in applied linguistics discipline

(Jalilifar et al., 2015). In addition to these criteria, the topics discussed in the collected

articles had to be related to the field of applied linguistics. To verify this criterion, all the

purposively selected articles, based on the criteria mentioned above, were discussed and

validated by an assistant professor in applied linguistics, who served as an expert to

verify the selected articles. Moreover, the expert was acquainted with the definitions of

applied linguistics, discussed earlier in the first chapter. Simply stated, Applied

Linguistics is "a practice-driven discipline that addresses language-based problems in

real-world contexts" (Grabe, 2010, p. 42). In summary, the journals and research articles

were selected based on the following criteria:

1. The journals selected should be based on the three criteria of
   representativeness, reputation, and online accessibility;

2. The articles needed to follow the traditional conventional structure,
   Introduction-Method-Results-Discussion-Conclusion (IMRDC);

3. The articles were published during the years of 2011-2016, and the topics
   discussed in the articles were related to the field of applied linguistics; and

4. A number of certain characteristics were established to deal with the possible
   variations of headings sections in RAs.

*Corpus of research articles published in the Saudi journals.* The corpus of

English-language research articles, published in the local Saudi journals, encompassed 15

articles purposefully selected from eight journals published by Saudi universities in the

field of applied linguistics during the years 2011-2016, See Appendix B for the list of

research articles. The selection of English journals published in Saudi Arabia fit the

criteria previously mentioned. In fact, the total list of peer-reviewed journals comprised

ten journals in Saudi Arabian-published articles related to the field of applied linguistics. As for material availability, all journals could be easily accessed online with the exception of the *Journal for Humanities,* published by King Khalid University, which had been publishing in hard copy format, and was thus excluded from the corpus due to its lack of availability. The *Journal of Human and Administrative Sciences,* published by Majmaah University, was also excluded as it did not meet one of the criteria of selecting RAs (i.e., the articles need to follow the traditional conventional structure – IMRDC). Regarding representativeness, these journals were considered established journals in the field of applied linguistics in Saudi Arabia. As for reputation, unfortunately there was no such ranking report that identified reputed journals published in Saudi Arabia. The journals from which texts in the corpus were selected are assumed to be some of the most reputable in Saudi Arabia in the field of applied linguistics, as they were recommended by several faculty members at Saudi universities. The purposes of the eight designated journals, a based on the editorial policy, are represented below:

1. The *Journal of Educational Sciences* issued by King Saud University aims at "concentrating on publishing original and pioneer researches in education in general, and other related topics, like: teaching methods, schools and universities and other educational institutions, teachers and students … in both Arabic and English languages" (*Journal of Educational Sciences*, n.d.).

2. The *Umm Al-Qura University Journal of Educational and Psychological Sciences* aims to "publish authentic, new and distinguished scientific researches in the fields of concern to the journal [i.e., *Educational and Psychological Sciences*], besides promoting different aspects of scientific

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research, namely authoring, investigation and translation, and following up all developments in the fields of research theories and methodologies [in Arabic and English languages]" (University Journals Office | Umm Al-Qura University, n.d.).

3. The *Scientific Journal of Qassim University – Journal of Arabic and Human Sciences* "Its purpose is to provide an opportunity for scholars to publish their original research in the field of Arabic and human sciences [in Arabic and English languages]" (*Journal of Arabic And Human Sciences*, n.d.).

4. The *Journal of Imam Muhammad Ibn Saud Islamic University for Educational Sciences* is "a quarterly refereed specialized journal published by Al-Imam Muhammad Ibn Saud Islamic University. It publishes scientific research […] in various related fields including, fundamentals of education, educational administration, curriculum and Teaching Methods, Special Education, E-learning, among many others, in Arabic and English" (*Journal of Imam Muhammad Ibn Saud Islamic University*, 2016).

5. The *Journal of King Saud University - Languages and Translation* is "an English language, peer-reviewed scholarly publication in the area of languages and translation" (*Journal of King Saud University - Languages and Translation*, n.d.).

6. The *Journal of King Abdulaziz University* (JKAU) is a scientific and refereed journal issued by King Abdulaziz University (KAU). The Journal is "devoted to the publication of high quality researches and scientific studies [in Arabic and English languages] that have sedate manner and strive to develop

research, educational, and behavioral procedures with the aim of attaining

intellectual and scientific growth in Saudi Arabia, Arab World and Globally

… [in] Arts and Humanities, …" (*Journal of King Abdulaziz University*, n.d.).

7. The scientific *Journal of King Faisal University* is "a biannual refereed
scientific journal issued under the guidance of the University Scientific
Council … in many aspects of basic, applied, humanities and Management
sciences … in Arabic or English language" (*Scientific Journal of King Faisal
University*, n.d.).

8. The *Journal of the North* is "concerned with the publication of original,
genuine scholarly studies and researches in humanities and sociology in
Arabic and English" (*Journal of the North for Humanities*, n.d.).

It is worth mentioning that all the identified journals in the Saudi corpus publish articles

in Arabic and English languages. The reason for publishing in two languages is that these

journals are published by the Faculty of Humanities and Social Sciences, which include a

number of different departments, such as the Department of Arabic Language, the

Department of Islamic Studies, and the Department of English and Literature. Therefore,

the selection of the research articles was based on the criteria stated earlier. The

compilation of the corpus proceeded through the several steps summarized in Figure 2.

The corpus of Saudi journals and the number of articles are shown in Table 4.

Figure 2: The process of compiling the Saudi corpus.

Identifying all journals in the field of social sciences published in Saudi Arabia by browsing all databases available in Saudi Arabia, including King Fahad National Library, Saudi Digital Library (SDL), and the universities online databases (13 journals).

Skimming through the identified journals to select English-language articles related to the field applied linguistics (total= 28 research articles).

Filtering the selected articles to match the criteria mentioned above (total= 22).

Selecting a random sample (15 articles).

Table 4: The Corpus of Saudi Journals and The Number of Articles

| No. | Saudi Journals | No. of RAs | Total # of words |
|---|---|---|---|
| 1 | Journal of King Saud University - Educational Sciences | 3 | 23627 |
| 2 | Umm Al-Qura University Journal for Languages & Literature | 3 | 21972 |
| 3 | Qassim University: Journal of Arabic and Human Sciences | 2 | 13683 |
| 4 | Al-Imam Muhammad Ibn Saud Islamic University: Journal of Educational Sciences | 2 | 11039 |
| 5 | Journal of King Saud University - Languages and Translation | 2 | 13209 |
| 6 | Journal of King Abdulaziz University: Arts and Humanities | 1 | 8599 |
| 7 | The Scientific Journal of King Faisal University | 1 | 4877 |
| 8 | Journal of the North: Northern Border University | 1 | 3941 |
| | **Total** | 15 | 100947 |

***Corpus of research articles published in the international journals.*** The corpus

of English-language research articles published in the international journals encompassed

15 articles purposefully selected from eight journals in the field of applied linguistics

during the years 2011-2016 (See Appendix B for the list of the research articles). The

research articles were selected according to the criteria stated above. The journals in the

present study were selected based on their ranking in the Journal Citation Reports (JCR),

published in 2015 by the Institute for Scientific Information (ISI). These journals also

were available in electronic format in their websites. The aims and scopes, based on the

editorial policy, of the eight selected journals are presented below:

1. *Applied Linguistics* (AL) is "keen to help make connections between fields,

   theories, research methods, and scholarly discourses, and welcomes

   contributions which critically reflect on current practices in applied linguistic

   research." (*Applied Linguistics | Oxford Academic*, n.d.).

2. *Studies in Second Language Acquisition* (SSLA) is "a refereed journal of

   international scope devoted to the scientific discussion of acquisition or use of

   non-native and heritage languages." (*Studies in Second Language Acquisition*,

   n.d.).

3. *Language Learning* (LL) is concerned with the "fundamental theoretical

   issues in language learning such as child, second, and foreign language

   acquisition, language education, bilingualism, literacy, language

   representation in mind and brain, culture, cognition, pragmatics, and

   intergroup relations. " (Wiley: *Language Learning*, n.d.).

4. The *Journal of Second Language Writing* (JSLW) is "devoted to publishing theoretically grounded reports of research and discussions that represent a contribution to current understandings of central issues in second and foreign language writing and writing instruction" *(Journal of Second Language Writing*, n.d.).

5. The *Journal of English for Academic Purposes* (JEAP) provides "a forum for the dissemination of information and views [related to] … a wide range of linguistic, applied linguistic and educational topics may be treated from the perspective of English for academic purposes; these include: classroom language, teaching methodology, teacher education, assessment of language, needs analysis …" (*Journal of English for Academic Purposes*, n.d.).

6. *TESOL Quarterly* "encourages submission of previously unpublished articles on topics of significance to individuals concerned with English language teaching and learning and standard English as a second dialect." (Wiley: *TESOL Quarterly*, n.d.).

7. *The Modern Language Journal* (MLJ) aims to publish "research and discussion about the learning and teaching of foreign and second languages." (Wiley: *The Modern Language Journal*, n.d.).

8. *English for Specific Purposes* (ESP) is devoted to "topics relevant to the teaching and learning of discourse for specific communities: academic, occupational, or otherwise specialized." (*English for Specific Purposes*, n.d.).

The corpus of international journals, the impact factor of 2015, and the number of articles are shown in Table 5.

Table 5: The Corpus of the International Journals and The Number of Articles

| No. | International Journals | Impact Factor (2015) | No. of RAs | Total # of words |
|---|---|---|---|---|
| 1 | Applied Linguistics | 3.250 | 2 | 14195 |
| 2 | Studies in Second Language Acquisition | 2.234 | 2 | 16337 |
| 3 | Language Learning | 1.869 | 2 | 17331 |
| 4 | Journal of Second Language Writing | 1.744 | 2 | 20256 |
| 5 | Journal of English for Academic Purposes | 1.558 | 2 | 13669 |
| 6 | TESOL Quarterly | 1.513 | 2 | 19044 |
| 7 | Modern Language Journal | 1.188 | 2 | 16967 |
| 8 | English for Specific Purposes | 1.143 | 1 | 8388 |
| | **Total** | | 15 | 126187 |

In the remainder of this section, several points need to be clarified regarding the process of choosing journals and research articles. First of all, the present study consisted of 30 research articles (15 articles from each corpus) derived from the Saudi and the international journals in the field of applied linguistics. It is worth mentioning that the size of the corpus found in the literature ranged from small to large samples. For example, Nwogu's (1997) study analyzed 30 RAs with conventional sections (IMRD), while Pho (2008a) and Kanoksilapatham (2005) analyzed 40 and 60 RAs, respectively. These studies indicated that 30-60 research articles were recommended for the analyzation of the rhetorical structure of research articles.

Secondly, identifying native and non-native English-speaker authors in the journals is beyond the scope of the study in both corpora due to the fact that the term *native* is highly problematic. In other words, the *nativeness* of the writers is not always

something that could be easily determined (Vladimirou, 2007), despite the various criteria established to distinguish native from non-native English speakers, such as Wood's (2001) *strict* and *broad* criteria. For instance, Wood's (2001) strict criterion requires that authors must first have names "native to the country concerned," and also have affiliation with a university in a country where English is spoken as the first language (e.g., United States, United Kingdom) (p. 78). However, this criteria is problematic because being affiliated with such a university does not promise that an author is a native speaker of English. Consequently, regardless of whether the authors were native or non-native English-speakers, the articles published in internationally high impact journals indicated that these articles, in the present study, had conformed to the norms and conventions of written research articles in the targeted journals, and could therefore be considered as a representative sample of expert writing (Martın, 2003; Pho, 2008a; Vladimirou, 2007).

Similar to the issue of (non)nativeness identification of the authors, the current study did not specifically concentrate on Saudi writers in the Saudi corpus, although 11 RAs in the corpus were written by Saudi authors who were identified by examining their biography profiles available on their affiliated universities' websites. The limited number of research articles in the Saudi corpus, as well as the difficulty of applying the criteria stated earlier were the primary reasons for not focusing on Saudi writers. Although all the authors in the Saudi corpus were affiliated with Saudi universities, their educational backgrounds differed in regards to the attainment of their M.A. and Ph.D. degrees from universities where English is spoken as the first language (i.e., United states, United Kingdom, Australia). Furthermore, another problem was related to the authors' names:

Almost all authors had Arabic names that were common in Saudi Arabia, such as Mohammad and Yousef. Interestingly, a closer investigation of this matter revealed that there were two authors in the corpus who had the same first name "Yousef," but they were from two different countries (i.e., Saudi and Jordan). Thus, the nativeness of the authors exceeds the limits of the current study but certainly deserves further research.

**Genre-Based Approach**

**Five models for move analysis.** The move structures of RAs were determined by using a genre-based approach. The RA sections were analyzed by five models: Swales' (2004) revised three-move Create-A-Research-Space (CARS) model to analyze Introduction sections, Peacock's (2011) seven-move model to examine Methods sections, and Ruiying and Allison's (2003) models to analyze Results-Discussion-Conclusion sections.

*Swales' (1990, 2004) model.* Swales' (2004) three-move model was used to analyze the introduction section of RAs. The pioneering work of John Swales (1981, 1990) established the groundbreaking concept of move (M) analysis (for further information about Swales' and his fellows' contributions to move analysis see Chapter Two). Swales' model was evaluated and modified by several researchers and scholars, in which they reported a number of difficulties (Bley-Vroman & Selinker, 1984; Crookes, 1986). Their analyses pinpointed some difficulties in distinguishing between Move 1 *Establishing the field* and Move 2 *Summarizing previous research*.

As a result, Swales' (1990) established the profound three-move model known as Create-A-Research-Space (CARS) model, as presented in Table 6. Using this model,  RA writers embraced the three obligatory moves in RA introductions. In the first move (i.e.,

Move 1 *Establishing a territory)*, the writer paves the way for the general topic being discussed then resorts to various steps (e.g., Claiming Centrality, Reviewing Previous Items of Research). Next move (i.e., Move 2 *Establishing a niche)*, the writer creates a niche within the subject territory by one or more steps. In the last move (i.e., Move 3 *Occupying the niche)*, the writer presents the study by occupying the niche.

Since then, a sufficient number of studies have evaluated Swales' model and contributed to various disciplines across several languages. Among these studies are Ozturk (2007) and Atai and Habibie (2009) in applied linguistics, Holmes (1997) in social sciences, Samaraj (2002) in Biology, and Anthony (1999) in software engineering, just to name a few. In addition, Swales' CARS model has been applied to examine several RA sections, such as the Abstract (Lorés-Sanz, 2004), Results (Lim, 2011), and Discussion sections (Lim, 2010). Based on the extensive analysis and evaluation of the aforementioned studies, as well as others, Swales (2004) later presented a revised version of the CARS model. Although the overall move structure was unchanged, the significant changes took place in the modification of some of the steps. For a complete explanation of the revised CARS model, see Swales (2004, pp. 226–234).

Even so, the Swales' (1990) version still seemed to be more widely employed as an analytical tool than the 2004 version. Perhaps the reason is due to the research tradition that has developed around the 1990 model (Hirano, 2009). However, Ozturk (2007) asserted that the new version (i.e., 2004) is considered the stronger one because it can successfully account for most of the limitations mentioned by some researchers regarding the previous models (i.e., 1981 and 1990). Therefore, the present study employed Swales' (2004) model to analyze the Introduction section.

Table 6: Swales' (2004) Create-A-Research-Space (CARS) revised model (p. 230-232)

**Move 1** *Establishing a territory (*citations required)

       via

    Step 1.  Topic generalization of increasing specificity

**Move 2** *Establishing a niche (*citations possible)

       via

    Step 1.A.  Indicating a gap    OR

    Step 1.B.  Adding to what is known

    Step 2.    (optional) Presenting positive justifications

**Move 3 Presenting** *the Present Work* (citations possible)

       via

    Step 1.  (obligatory) Announcing present research descriptively and/or purposively

    Step 2.* (optional) Presenting RQs or hypotheses

    Step 3.  (optional) Definitional clarifications

    Step 4.  (optional) Summarizing methods

    Step 5.  (PISF**) Announcing principal outcomes

    Step 6.  (PISF) Stating the value of the present research

    Step 7.  (PISF) Outlining the structure of the paper

> Possible recycling of increasingly specific topics

\* Steps 2-4 are not only optional but less fixed in their order of occurrence than the others

\*\* PISF: Probable in some fields, but unlikely in others


*Peacock's (2011) model.* The Methods section was scrutinized by Peacock's (2011) seven-move model. Peacock (2011) proposed a model for analyzing Methods sections in RAs based on move names rather than applying models suggested in previous studies (e.g., Lim, 2006 – in management discipline), by conducting a thorough examination of what elements are included in 288 RA Methods sections across eight disciplines with 36 RAs each (i.e., biology, chemistry, physics, business, language and linguistics, law, public and social administration). Peacock identified seven moves in the corpus that serve seven different communicative purposes, as summarized in Table 7. In the literature, Arsyad (2013) is, perhaps, the only study that utilized Peacock's model to

analyze RA Methods sections written in Indonesian Social Science and Humanity journals. Unfortunately, it seems that Peacock's (2011) and—including this newly conducted present study—Cotos, Huffman, and Link (2017) studies are the only ones that explore Methods section in language, linguistics and applied linguistics disciplines..

Table 7: Peacock's (2011) seven-move model for analyzing Methods section (p. 105-106)

| Moves | Communicative Functions |
|---|---|
| *Move 1— *Overview* | It provides a brief outline of the research method. |
| Move 2— *Location* | It describes the research site and/or the geographical location. |
| *Move 3— *Research Aims/ Questions/ Hypotheses* | It describes the goals of the research and the questions to be answered, and outlines the hypotheses if any. |
| *Move 4— *Subjects/Materials* | It describes *subjects* and *Materials* of the study. |
| *Move 5— *Procedure* | It describes the data-collection actions taken by the researcher/s. |
| Move 6— *Limitations* | It describes the ways in which the research was restricted or Limited. |
| *Move 7— *Data Analysis* | It describes how the data were analyzed, the analysis method. |

\* a required move in the field of language and linguistics

Similarly, Kanoksilapatham (2007) claimed that there is no clear model for the Methods section in all the RAs of all disciplines because many researchers have not paid much attention to this section. By contrast, Lim (2006) proposed a model for Methods sections in management discipline. Although Lim's model was proposed for the social science field (i.e., management), Peacock's model was preferred for the present study for several reasons. First, Peacock's (2011) model was developed originally "using the move names and not models proposed by previous researchers" (p. 103). Second, Peacock's model encompassed 288 RAs from eight disciplines, (36 RAs each), whereas Lim's

model analyzed only 20 articles. Lastly, the language and linguistics discipline was among the disciplines analyzed in Peacock's model, while Lim's model analyzed articles in the field of management.

   ***Ruiying and Allison's (2003) three models.*** Ruiying and Allison's (2003) models were employed to analyze the Results, Discussion, and Conclusion sections. In the field of applied linguistics, Ruiying and Allison (2003) proposed very comprehensive models to examine Results, Discussion, and Conclusion sections of RAs, based on the analysis of four reputed journals; *Applied Linguistics* (APP), *TESOL Quarterly* (TESOL), *English for Specific Purposes* (ESP), and *English Language Teaching Journal* (ELT).

   The Results section, as shown in Table 8, encompasses six moves with several steps; Move 1 *Preparatory information*, Move 2 *Reporting results,* and Move 3 *Commenting on results* are obligatory*,* whereas Move 4 *Summarizing results*, Move 5 *Evaluating the study*, and Move 6 *Deductions from the research* are optional. Although there were some models developed to analyze the Results section (Lim, 2010, 2011; Pojanapunya & Todd, 2011), these models have some limitations. While Lim's (2010, 2011) studies modified Swales' (1990) model to become applicable for the Results section, Pojanapunya and Todd's (2011) model was developed from analyzing only one journal in the field of applied linguistics (i.e., System). Even though Pho (2008a) proposed a model to analyze complete RAs (IMRD) in the applied linguistics field, it was excluded because it provided options for analyzing moves regarding combined sections, such as Results-Discussion, and Discussion-Conclusion, and these combined sections were not the focus of the present study. Therefore, Ruiying and Allison's (2003) model was used in the present study to analyze the Results section.

Table 8: Ruiying and Allison's (2003) model for analyzing RA Results section (p. 373-374)

| Moves | Steps |
|---|---|
| *Move 1—*Preparatory information* | |
| *Move 2—*Reporting results* | |
| *Move 3—*Commenting on results* | Step 1: Interpreting results |
| | Step 2: Comparing results with literature |
| | Step 3: Evaluating results |
| | Step 4: Accounting for results |
| **Move 4—Summarizing results | |
| **Move 5—*Evaluating the study* | Step 1: Indicating limitations |
| | Step 2: Indicating significance/ advantage |
| **Move 6—*Deductions from the research* | Step 1: Recommending further research |

\* obligatory move

\*\* optional move

Illustrated in Table 9, the Discussion section's framework consists of seven moves: Move 1—*Background information*, Move 2—*Reporting results*, Move 3—*Summarizing results*, Move 4—*Commenting on results*, Move 5—*Summarizing the study*, Move 6—*Evaluating the study*, and Move 7—*Deductions from the research*. According to Ruiying and Allison (2003), Move 4 is obligatory in that it occurs in almost all RA Discussion sections, as is Move 2 and Move 3. Even though the Dudley-Evans' (1994) model has been employed in many studies, the Ruiying and Allison's (2003) model was favored in the present study. The reason was that Dudley-Evans' (1994) model was proposed from the analysis of the Discussion section in master theses in science, which was considered a different genre from the Discussion section in research articles.

It is worth mentioning, however, that the analysis of the Discussion section also revealed a degree of overlap with the Results section, in terms of rhetorical moves (Ruiying & Allison, 2003). The overlapping moves are identified as *Reporting results* in

the Results section, and *Commenting on results* in the Discussion section, and the overlap

is due to the fact that the Results section, *Reporting results* greatly outnumbers

*Commenting on results.* In contrast, in the Discussion section, the *Commenting on results*

outnumbers *Reporting results*. Ruiying and Allison then confirmed that *Commenting on*

*results* is relatively more frequent in Discussion sections than in Results sections. Even

though the Discussion and Results sections reported a degree of moves in common, the

two sections, Ruiying and Allison argue, differ quantitatively and qualitatively in terms

of communicative functions.

Table 9: Ruiying and Allison's (2003) model for analyzing RA Discussion section (p. 376)

| Moves | Steps |
|---|---|
| **Move 1**—*Background information* | |
| *Move 2*—*Reporting results* | |
| *Move 3*—*Summarizing results* | |
| *Move 4*—*Commenting on results* | Step 1: Interpreting results <br><br> Step 2: Comparing results with literature <br><br> Step 3: Accounting for results <br><br> Step 4: Evaluating results |
| **Move 5**—*Summarizing the study* | |
| **Move 6**—*Evaluating the study* | Step 1: Indicating limitations <br><br> Step 2: Indicating significance/advantage <br><br> Step 3: Evaluating methodology |
| **Move 7**—*Deductions from the research* | Step 1: Making suggestions <br><br> Step 2: Recommending further research <br><br> Step 3: Drawing pedagogic implication |

\* a required move

\*\* optional move

Lastly, the structure of the Conclusion section encompasses three obligatory moves (see Table 10): Move 1 *Summarizing the study*, Move 2 *Evaluating the study*, and Move 3 *Deductions from the research*. Notably, the three moves found in the Conclusion sections also appeared in the Discussions sections. Ruiying and Allison stated, however, that both sections differ from each other. That is, there was more focus, in the Discussion section, on commenting on specific results reported in the Results section, while, in the Conclusion section, more space was devoted to summarizing the overall results and evaluating the study, as well as speculating on future research. Surprisingly, Ruiying and Allison's (2003) model is the only model found in the literature that analyzed the Conclusion section. Above all, Ruiying and Allison's model was cited and applied in several studies (e.g., see the works of Amnuai & Wannaruk, 2013b; Basturkmen, 2009; Le & Harrington, 2015), which ensured greater reliability of their model.

Table 10: Ruiying and Allison's (2003) model for analyzing RA Conclusion section (p. 379)

| Moves | Steps |
|---|---|
| **\*Move 1**—*Summarizing the study* | |
| **\*Move 2**—*Evaluating the Study* | Step 1: Indicating significance/advantage<br>Step 2: Indicating limitations<br>Step 3: Evaluating methodology |
| **\*Move 3**—*Deductions from the research* | Step 1: Recommending further research<br>Step 2: Drawing pedagogic implication |
| * obligatory move | |

Given that the theoretical frameworks of the present study have been illustrated above, the coding scheme was developed (see Appendix A) to analyze the complete

research articles in both corpora. The following section highlights the procedures for conducting move analysis.

**Move analysis procedure.** The analysis of moves is usually carried out through either a bottom-up approach, a top-down approach, or both. According to Pho (2008b), the bottom-up approach determines moves on the basis of certain linguistic features (e.g., signals). The top-down approach, on the other hand, identifies moves by their communicative purposes. In the present study, the viewpoint of communicative purpose was central for the analyses of both corpora, therefore, the top-down approach was employed. Although the most common realization of moves was in a sentence, a move that was realized by structures ranging from several sentences to a bundle was also accepted in this study. Askehave and Swales (2001) stated that, in some cases, the communicative purpose of a unit of text is not self-evident, or it might have dual or multiple functions in the context. Holmes (1997) and Ozturk (2007) recommend analyzing each move according to the most salient function. Indeed, this procedure produced a certain degree of subjectivity, which is discussed later in this chapter.

The analysis of the 30 RAs was carried out in several stages. First, each article was assigned a separate code (S1 – S15) for the Saudi corpus and (I1 – I15) for the international corpus. Second, each article was analyzed for its overall structure organization. Then a thorough examination of the complete RA sections (IMRDC) was carried out by employing three models: Swales' (2004) (CARS) model to analyze Introductions sections; Peacock's (2011) model to examine Methods sections; and Ruiying and Allison's (2003) model to analyze Results-Discussion-Conclusion sections. Subsequently, a comparison of the findings from the two corpora was undertaken in

terms of frequency, move structure, and move cyclicity. Next, the overall rhetorical structure of the analyzed RAs was reported. Lastly, the findings were discussed in relation to the research questions and to previous research studies.

The frequency of individual moves in each RA of the two corpora was calculated in order to determine whether a certain move was considered *conventional* or *optional*. The literature shows that the frequency cut-off point is arbitrarily set to serve the purpose of the analysis. For instance, Nwogu (1997) suggested that a move needs to occur in 50% of the corpus in order to be considered a stable and conventional move, while this standard was raised to 60% in Kanoksilapatham's (2005) study and to 75% in Amnuai and Wannaruk's (2013b) study. Therefore, the cut-off frequency of 70% was established as a potential measure of move stability in the present study. That is, a move occurrence must be in the range of 70% - 100% in each corpus to be categorized as conventional. If the frequency of a move fell below 70% in each corpus, it was then labeled as optional. This criterion was applied to all the moves identified in every section of this study. The same criterion also was applied to any possible new moves or steps that might appear during the analysis of both corpora.

**Reliability of move analysis.** As stated in the previous section, the identification of moves based on function or content produced a certain degree of subjectivity. To deal with this problem, Crookes (1986) emphasized the need to obtain high inter-coder reliability rates by having another coder analyze the moves and steps in the articles. The inter-coder reliability refers to the degree of agreement among the two coders. To ensure the reliability of the move analysis, a coder who was experienced in move analysis in the field of applied linguistics was recruited. In addition, an intra-rater reliability was taken

into consideration when conducting move/steps analysis by recoding 3 RAs (20%) randomly selected from each corpus two months after the initial coding. The intra-rater reliability refers to the ability of a rater or a measurement system to reproduce quantitative or qualitative outcomes under the same experimental conditions.

To calculate the inter-rater reliability (here, it refers to the inter-coder reliability), Cohen's Kappa (1960, 1968) inter-rater agreement and percentage agreement for each section were applied. The statistical calculation of the inter-coder reliability was computed by using a special website called "VassarStats" (http://vassarstats.net/index.html), which provided useful and user-friendly tools for performing various statistical computations.

First, Cohen's Kappa is an index of inter-rater reliability that is commonly used to measure the level of agreement between two sets of dichotomous ratings (Cohen, 1960). Landis and Koch (1977) provided a clear benchmark for the strength of agreement; that is, Kappa can range anywhere from -1.0 to +1.0. Although the benchmark scale is arbitrary, the authors recommend it as a useful guideline for practitioners. Table 11 describes Landis and Koch's (1977) benchmark scale.

Table 11: Landis and Koch-Kappa's Benchmark Scale

| Kappa Statistic | Strength of Agreement |
| --- | --- |
| < 0.0 | Poor |
| 0.0 to 0 .20 | Slight |
| 0.21 to 0.40 | Fair |
| 0.41 to 0.60 | Moderate |
| 0.61 to 0.80 | Substantial |
| 0.81 to 1.00 | Almost Perfect |

Secondly, the percentage agreement for each section was computed automatically in Cohen Kappa test. Simply put, the percentage agreement could be calculated by using this formula A/(A+D) x 100, where A refers to the number of agreements, and D refers to the number of disagreements between the researcher and the coder. The percentage agreement has been widely used because it is relatively simple to interpret. In the present study, a satisfactory agreement rate (i.e., 90%) was required for accessing coding reliability for the selected research articles. For instance, if the researcher and the coder coded a total of 90 move units and they agreed on 75 of them, the percentage agreement rate was 83.3 %.

*Coder selection and training*. Several studies have discussed a number of factors that contribute to disagreement in coding such as the background of the coders, the training of the coders, and the coding scheme itself (Kanoksilapatham, 2003; Shohamy, Gordon, & Kraemer, 1992). For instance, Crookes (1986) asked a graduate student in ESL to serve as a coder in his study. However, Crookes cautions that such selection might affect the analysis in terms of disagreement due to, as Crookes claims, the lack of understanding and familiarity with the topics discussed in the selected research articles. In the present study, the selection of the coder was based on the following criteria. First, the coder should have experience in conducting genre analysis, as well as being familiar with the field of applied linguistics. Therefore, the coder selected was a Ph.D. student in Teaching English to Speakers of Other Language (TESOL), who had also conducted research on Move based analysis. Second, the author and the coder conducted a two-hour training session to explain the procedures of conducting genre analysis. Even though the coder possessed knowledge on genre analysis, the author wanted to ensure the coder had

a clear understanding about the process and to address any concerns raised by the coder. The coder was then given about one month to analyze six RAs (3 RAs, 20%, from each corpus) randomly selected from both corpora (for the analysis, see [Appendix B](#) in bold for the list of these articles). During that period, the author and the coder discussed and inquired on the process of the analysis. The inquiries related to some ambiguous sentences containing more than one function (i.e., move/step), which might lead to confusion and affect the analysis. To resolve this kind of confusion, the author informed the coder that the selection had to be based on the most salient function the sentence represented (Holmes, 1997; Ozturk 2007). Below are examples of such confusion found in both corpora.

1. *It is becoming increasingly more common for students to study content through a non-native language, whether in bilingual programmes in their home country or as international students abroad. In these educational contexts, teaching is as a rule delivered by subject (not language) specialists who follow the methodology typical of mainstream classes.* (Move 1, Step 1. Topic generalization of increasing specificity)

Before negotiation and discussion, the coder classified this move as Move 1 *Establishing a territory*, Step 1. *Topic generalization of increasing specificity*. Yet, the researcher considered it as Move 2 *Establishing a niche*, Step 1.B. *Adding to what is known*. After discussion, the researcher agreed with the coder.

2. *Students were motivated to choose from a wide range of titles the genre they like and to read at their own pace. This in turn affected their reading performance in the main reading course.* (Move 4, Step 1. Interpreting results)

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In this situation, the researcher considered this move as Move 4—*Commenting on results*, Step 1: *Interpreting results*. However, the coder thought this move is Move 4— *Commenting on results*, Step 3: *Accounting for results*. After careful rereading and re-analyzing, the researcher and the coder agreed to classify this as Move 4, Step 1. *Interpreting results*.

Afterwards, the author and the coder made an appointment to discuss the results of their analyses. The meeting lasted for about three hours. The author and the coder presented and discussed the results of each article separately. The author tallied and counted the agreement and disagreement units. Also, the author marked, in his own copy of RAs, the disagreed sentences in order to more easily discuss them with the coder. Next, both the author and the coder had negotiations and discussions about the disagreement units in their analyses. The majority of the disagreements were resolved by either following the author's opinion or the coder's. There were some disagreements where the author and the coder could not resolve. Finally, these disagreements and agreements were calculated by using the Cohen Kappa inter-rater reliability.

   ***Results of inter-coder reliability***. Table 12 displays the results of the inter-coder reliability analyses for each section of the research articles. The table shows the total number of coded units, the number of agreed and disagreed upon units between both the researcher and the coder for each move in each section. The table also shows the kappa value and the percentage agreement for each section and for overall coded units. As illustrated in Table 12, the overall results indicated that moves in certain sections (e.g., Methods and Conclusion) were more reliably and consistently identified than in other sections (e.g., Discussion). That is to say, the Conclusion section was the most stable and

reliable section with the highest Kappa value (i.e., 1) and the highest percentage (100%). This could be attributed to the fact that this section was relatively short and straight, which made it easy to analyze in terms of moves and steps. In contrast, the Discussion section scored the least among other sections (Kappa value: 0.832, percentage: 91.74%), which could be attributed to the nature of the Discussion section in terms of the number of moves/steps.

Table 12: the results of the inter-coder reliability analysis

| Sections | | Coded units | Agreement | Disagreement | Kappa | Percent |
|---|---|---|---|---|---|---|
| **Introduction** | Move 1 | 95 | 85 | 10 | | |
| | Move 2 | 259 | 250 | 9 | | |
| | Move 3 | 64 | 63 | 1 | | |
| | **Subtotal** | 418 | 398 | 20 | **0.8748** | **94.88%** |
| **Methods** | Move 4 | 15 | 10 | 5 | | |
| | Move 5 | 6 | 6 | 0 | | |
| | Move 6 | 5 | 5 | 0 | | |
| | Move 7 | 140 | 130 | 10 | | |
| | Move 8 | 101 | 99 | 2 | | |
| | Move 9 | 0 | 0 | 0 | | |
| | Move 10 | 92 | 92 | 0 | | |
| | **Subtotal** | 359 | 342 | 17 | **0.9572** | **95.26%** |
| **Results** | Move 11 | 33 | 33 | 0 | | |
| | Move 12 | 152 | 139 | 13 | | |
| | Move 13 | 99 | 99 | 0 | | |
| | Move 14 | 8 | 6 | 2 | | |
| | Move 15 | 5 | 0 | 5 | | |
| | Move 16 | 0 | 0 | 0 | | |
| | **Subtotal** | 297 | 277 | 20 | **0.8842** | **93.27%** |
| **Discussion** | Move 17 | 0 | 0 | 0 | | |
| | Move 18 | 7 | 0 | 7 | | |
| | Move 19 | 3 | 1 | 2 | | |
| | Move 20 | 74 | 74 | 0 | | |

| | | | | | |
|---|---|---|---|---|---|
| | Move 21 | 0 | 0 | 0 | | |
| | Move 22 | 4 | 4 | 0 | | |
| | Move 23 | 21 | 21 | 0 | | |
| | **Subtotal** | **109** | **100** | **9** | **0.832** | **91.74%** |
| **Conclusion** | Move 24 | 12 | 12 | 0 | | |
| | Move 25 | 18 | 18 | 0 | | |
| | Move 26 | 46 | 46 | 0 | | |
| | **Subtotal** | **76** | **76** | **0** | **1** | **100%** |
| **Total** | | **1259** | **1193** | **66** | **0.9096** | **94.76%** |

In general, the results revealed a high degree of agreement and accuracy between the author and the coder in terms of move identification in the five sections of applied linguistics research articles in the international and the Saudi corpora. As shown in the Table, the agreement rates ranged from 91.74% to 100%, and the rate across all the five sections was 94.76%. Furthermore, the kappa values ranged from 0.832 to 1, and the average across all the five sections was 0.9096.

**Corpus-Driven Approach**

The second phase of the present study involved identifying lexical bundles that occurred in the moves identified in the previous phase. The process included constructing move sub-corpora (i.e., Saudi and International), establishing criteria for selecting lexical bundles, and employing a computer software to extract the lexical bundles from each move.

**Move sub-corpora construction.** The move sub-corpora were derived mainly from the results gained in the first phase (i.e., rhetorical structure analysis). Next, the move sub-corpora were constructed through the following stages. First, all the 30 RAs were downloaded and saved as PDF (.pdf file format) documents. This process was

crucial, especially in the next stage because all PDF documents were converted to plain text format (.txt) and separately saved by assigning new names via special software called Adobe Acrobat Pro. Next, all irrelevant elements were deleted from the plain texts. Such elements included headings, abstracts, keywords, graphics, tables, figures, lines, page numbers, footnotes, references, acknowledgments, redundant spaces, copy rights signs, and foreign characters (Shi, 2014). Lastly, a total of 26 folders representing each move, which included 30 plain text documents, were created for each research article resulting in a total of 780 plain text documents. Each identified move was entered in the targeted plain text document, and each step associated with its move was tagged for the purpose of the analysis. All the identified moves were grouped and listed based on the corpus the moves represent. For example, I-M2-I6 is a name of a plain text document, where I refers to the International corpus; M2 is Move 2; I6 refers to the title of the article; the lowercase tag 's1' in the sub-corpus refers to step 1 associated with its move. In the Saudi corpus, S-M3-S10 can be understood as; capital S refers to the Saudi corpus, M3 means Move 3, S10 refers to the title of the article. The following section presents the identification of lexical bundles from the move sub-corpora.

**Lexical bundles identification procedure.** The process of identifying lexical bundles involved listing the criteria for selecting lexical bundles, as well as the bundle extraction process (e.g., manually or electronically). Lexical bundles were identified using a frequency-driven approach. That is, they were simply the most frequently occurring sequences of words in a move sub-corpus of texts. The frequency of lexical bundles occurring in the texts had been decided arbitrarily in the literature. For instance, in the written corpus, Hyland (2012) considered an occurrence in at least 10% of texts as

a frequency cut-off point, whereas Biber and Barbieri (2007) and Cortes (2004) suggest three to five times that number in the texts, especially in small corpora. The second criterion is that the length of the word combination to be included in the analysis, usually 2-, 3-, 4-, 5-, or 6-word string (Chen & Baker, 2010). Third, lexical bundles that did not represent a functional or rhetorical purpose were excluded.

In the present study, the frequency cut-off point of lexical bundles was to appear in at least 2 RAs in each corpus to avoid the idiosyncrasies of individual writers. Also, the 4-word length of the bundles was favored in the study. The four-word scope is ''the most researched length for writing studies, probably because the number of 4-word bundles is often within a manageable size (around 100) for manual categorization and concordance checks'' (Chen & Baker, 2010, p. 32). Moreover, Hyland (2008c) stated that 4-word bundles offer a clearer range of structures and functions when compared to 3-word or 5-word strings.

**Reliability of lexical bundles identification.**  Since the process of extracting lexical bundles might carry a degree of subjectivity, it is necessary to increase the reliability of the chosen bundles. To do so, the lexical bundles found in the study were validated based on the criteria of extracting them, illustrated above, followed by analyses, both structurally and functionally, based on two taxonomies, such as the structural taxonomy developed by Biber and his colleagues (Biber *et al*., 1999) and the functional taxonomy developed by (Hyland, 2008c).

As shown in Table 13, the Biber *et al*.'s (1999) taxonomy was utilized to analyze the structural features of lexical bundles associated with each move in both corpora. The taxonomy involves 12 structural types: 1. Noun phrase with *of*-phrase fragment; 2. Noun

phrase with other post-modifier fragment; 3. Prepositional phrase with embedded *of*-phrase fragment 4. Other prepositional phrases; 5. Be + noun/adjective phrase; 6. Passive verb + prepositional phrase fragment; 7. Anticipatory it + verb/adjective phrase; 8. (Verb phrase) + that-clause fragment; 9. (Verb/adjective) + to-clause fragment; 10. Adverbial clause fragment; 11. Pronoun/noun phrase + be (+…); and (12) lexical bundles that comprise noun phrase and prepositional phrase fragments.

Table 13: Structural types of lexical bundles (Biber et al., 1999, pp. 997–1025).

| Category | Pattern | Examples |
|---|---|---|
| **NP-based** | 1. Noun phrase + *of* | *the end of the, the nature of the, the beginning of the, a large number of* |
| | 2. Other Noun phrase | *the fact that the, one of the most, the extent to which, an important role in* |
| **PP-based** | 3. Prepositional phrase + *of* | *at the end of, as a result of, on the basis of, in the context of* |
| | 4. Other prepositional phrase | *on the other hand, at the same time, in the present study, with respect to the* |
| **VP-based** | 5. Be + noun/adjective phrase | *is the same as, is a matter of, is due to the, be the result of, is a significant difference* |
| | 6. Passive verb + prep. phrase fragment | *is shown in figure, is based on the, is defined as the, can be found in* |
| | 7. Anticipatory *it* + verb/adjective phrase | *it is important to, it is possible that, it was found that, it should be noted* |
| | 8. (Verb phrase) + *that*-clause fragment | *should be noted that, that this is a, we assume that the* |
| | 9. (Verb/adjective) + *to*-clause fragment | *are likely to be, to be able to, to determine whether the* |
| | 10. Adverbial clause fragment | *as shown in table, if there is a, as can be seen in, as compared with the* |
| | 11. Pronoun/noun phrase + be (+…) | *this is not the, there was no difference, this is the first* |
| Other expressions | 12. Other | *did not differ between, as well as the* |

In the functional analysis, Hyland's (2008c) taxonomy of discourse functions of lexical bundles was applied in the present study. Hyland's (2008) taxonomy bundles comprise three broad types: Research-oriented; Text-oriented; and Participant-oriented. Each type entails several sub-types, as illustrated in (Table 14): (a) Research-oriented (ideational) helps writers to structure their activities and experiences of the real world, (b) Text-oriented (textual) concerns with the organization of the text and its elements as a message, and (c) Participant-oriented (interpersonal) focuses on the writer or reader of the text.

Table 14: Hyland's (2008c) Discourse Functions Taxonomy (pp. 13-14)

| Category | Examples |
| --- | --- |
| **Research-oriented** – help writers to structure their activities and experiences of the real world | |
| Location – indicating time/place | *(at the beginning of, in the present study).* |
| Procedure | *(the role of the, the purpose of the).* |
| Quantification | *(the magnitude of the, a wide range of,).* |
| Description | *(the structure of the, the size of the).* |
| Topic – related to the field of research | *(in the Hong Kong, the currency board system).* |
| **Text-oriented** – concerned with the organization of the text and its meaning as a message | |
| *Transition signals* – establishing additive or contrastive links between elements | |
| *(on the other hand, in addition to the, in contrast to the).* | |
| *Resultative signals* – mark inferential or causative relations between elements | |
| *(as a result of, it was found that, these results suggest that).* | |
| *Structuring signals* – text-reflexive markers which organize stretches of discourse or direct reader elsewhere in text | |
| *(in the present study, in the next section, as shown in figure).* | |
| *Framing signals* – situate arguments by specifying limiting conditions | |
| *(in the case of, on the basis of, in the presence of, with the exception of).* | |
| **Participant-oriented** – these are focused on the writer or reader of the text | |
| *Stance features* – convey the writer's attitudes and evaluations | |

*(are likely to be, may be due to, it is possible that).*

*Engagement features* – address readers directly

*(it should be noted that, as can be seen).*

In addition, Chen and Baker (2010) stated that overlapping lexical bundles could inflate the results of quantitative analysis (See Chen and Baker, 2010, p. 33 for details about overlapping word sequences). For example, the lexical bundles *it has been suggested* and *has been suggested that* are overlapping in the corpus and is derived from a longer expression *it has been suggested that*. To solve this problem, each overlapping lexical bundles were combined into one longer unit so as to guard against inflated results (Chen & Baker, 2010).

**Software for lexical bundles identification.** In light of the criteria, all moves were analyzed to extract lexical bundles associated with each move, via a special software program called *AntConc* 3.4.3w, as from Allen's (2009) and Shi's (2014) studies, to name a few. According to Laurence Anthony's AntConc's website, the *AntConc* is a freeware corpus analysis toolkit for concordancing and text analysis. The *AntConc* was used due to its ease of use and user-friendly interface. Furthermore, it is a free software, unlike *WordSmith* software, and it can be downloaded online from (http://www.laurenceanthony.net/software/antconc/). The software encompasses several tools and features, among them is N-gram. The N-gram refers to the length of word string. The tool allows scanning of the entire corpus for 'N' word clusters (e.g. 1 word, 2 words, …). The tool further allows for finding common expressions in a corpus. For example, the n-grams of size 2 for the sentence "*this is a pen*" are *'this is,' 'is a'* and *'a pen.'* There are different lengths of n-gram ranging from bigram (i.e., 2-gram) to six-

gram (6-gram). The following steps summarizes the process of producing a set of N-gram results:

1. After loading all documents prepared as plain texts, Click on the "Cluster/N-Grams" option above the search entry box.

2. Choose the appropriate N-gram size, frequency, and range.

3. Press the 'Start' button. At any time, the generation of the n-grams list can be halted using the 'Stop' button.

4. Click on the n-gram to generate a set of KWIC lines using the text as the search term.

5. Click on the "Clone Results" button to create a copy of the results so that different sets of results can be compared (Laurence Anthony's AntConc).

After all lexical bundles were extracted, two other software were employed to manage these bundles. First, Microsoft Excel was used for several purposes, such as organizing bundles in different categories, calculating percentages and total bundles associated with each move and in each section, calculating types and token of each bundle in each move, computing the percentage of occurrences of bundles in terms structural and functional classifications, and finding duplicated bundles between both corpora.

The second software was the Multidimensional Analysis Tagger (MAT), which is, as stated on the MAT's website, "a program for Windows that replicates Biber's (1988) *Variation across Speech and Writing* tagger for the multidimensional functional analysis of English texts, generally applied for studies on text type or genre variation. The program can generate a grammatically annotated version of the corpus selected as well as the statistics needed to perform a text-type or genre analysis." The program can be

downloaded for free from (https://sites.google.com/site/multidimensionaltagger/home).

The software was utilized mainly to generate grammatical classification of the extracted

bundles in order to help identify the structural categorization of these bundles. Following

that, the extracted bundles underwent several stages of refinement. The refinement

process involved removing duplicated bundles, combining overlapping bundles to control

the inflated number of bundles, as well as removing bundles that did not represent

functions in the text. The entire list of lexical bundles is found in Appendix C.

**Closing Remarks**

After conducting the comparative analysis between both corpora, the study

provided a syllabus designed as a pedagogical implication for international graduate

students (see Appendix F). The syllabus incorporated the findings of both approaches

employed in the study: genre-based approach and corpus-driven approach. The syllabus

further described the process of analyzing research articles' sections to identify rhetorical

structure (i.e., moves and steps) found in each section. Also, a list of the most common

lexical bundles with their functions was derived from the results of the present study and

was included as a guideline for language learners, as well as a written process of

constructing a specialized corpus.

**Summary of the Chapter**

The present chapter has described the methodology employed in the present

study. Following that, the chapter has shown the description of the corpora, including the

selection of journals and research articles. Lastly, there has been a detailed explanation of

the two approaches employed to analyze the selected research articles: genre-based and

corpus-driven approaches. As for the genre-based approach, there were three models

employed to analyze the rhetorical structure of both corpora (i.e., Saudi and international): Swales' (2004) CARS model to analyze Introduction sections; Peacock's (2011) model to examine Methods sections; and Ruiying and Allison's (2003) models to analyze Results-Discussion-Conclusion sections. In regards to the corpus-driven approach, the criteria and process for identifying lexical bundles associated with each move were presented, including the software used to accomplish the process. The reliability of the processes illustrated in both approaches was also discussed.

# CHAPTER 4

# RESULTS

The present chapter provides the results of the study based on the analysis of five sections of research articles, Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C). The chapter begins by briefly stating the objectives of the study. Next, the chapter presents the results of the analysis of macrostructure of RAs in the international and the Saudi corpora, followed by the first phase analysis, which is the genre-based approach. Lastly, the chapter presents the results of the second phase, which is the corpus-driven approach.

## Research Objectives

As mentioned in Chapter One, the purpose of the study was to compare the rhetorical structure and lexical bundles of English RAs with complete sections, (i.e. Introduction-Methods-Results-Discussion-Conclusion [I-M-R-D-C]), published in the local Saudi and the international journals in the field of applied linguistics. The study aimed to address the following research questions:

1. What are the rhetorical moves utilized in articles published in the Saudi journals of English applied linguistics, and how do they compare to those published in international journals of applied linguistics?

2. What lexical bundles are utilized in each move of English applied linguistics research articles published in The Saudi journals, and how are they similar to or different from those in international journals?

## Macrostructure of RAs in the International and the Saudi Corpora

Table 15 and Table 16 display the frequency of section occurrences across the 30 RAs in the international and the Saudi corpora, based on the standard IMRDC framework. It is noteworthy to mention that five RAs in the international corpus did not have a heading for the introductory section (i.e., I8, I10, I11, I14, and I15).

Table 15: Macrostructure analysis of the international corpus [a]

| Journals | Introduction | Methods | Results | Discussion | Conclusion |
|---|---|---|---|---|---|
| AL (n=2) | 2 | 2 | 2 | 2 | - *Concluding Remark*<br>- *Conclusion, Limitations, and Directions For Future Research* |
| SSLA (n=2) | 1 *Background* | 2 | 2 | 2 | 2 |
| LL (n=2) | 1 | 2 | 2 | 2 | - *Study Limits and Implications for Future Research*<br>- *Limitations and Directions for Future Research* |
| JSLW (n=2) | 2 | 2 | 2 | 2 | 2 |
| JEAP (n=2) | 2 | 1 *The study* | 2 | 2 | 2 |
| TQ (n=2) | - | 2 | 1 *Findings* | 2 | 1 *Conclusions and Recommendations* |
| MLJ (n=2) | - | 2 | 2 | 2 | 2 |
| ESP (n=1) | 1 | 1 | 1 | 1 | 1 |
| Total (%) (n=15) | 9 (60%) | 14 (93%) | 14 (93%) | 15 (100%) | 10 (67%) |

**n**= number of articles

Table 16: Macrostructure analysis of the Saudi corpus [a]

| Journals | Introduction | Methods | Results | Discussion | Conclusion |
|---|---|---|---|---|---|
| **KSU-ES** (n=3) | 3 | 1<br>- *Research design*<br>- *Overview of the Current Study* | 1<br>*Study Results* | 3 | 2<br>*Concluding Remarks* |
| **UQU** (n=3) | 3 | 1<br>*Methodology* | 1<br>- *Findings of the Study*<br>- *Findings* | 2<br>*Discussion of Findings and Implications* | 1<br>- *Implications for Pedagogy*<br>- *Conclusion and Suggestions* |
| **QU** (n=2) | 1<br>*Background* | 2 | - *Findings*<br>- *Findings of the Study* | 1<br>- *Discussion of the Findings* | *Recommendations Implications and limitations* |
| **IMBS** (n=2) | 2 | - *Methodology*<br>- *Research Methodology* | - *Findings of the Study*<br>- *Data Analysis & Results* | 1<br>*Discussion of the Findings* | 1<br>*Recommendations* |
| **KSU** (n=2) | 2 | - *Methodology*<br>- *Design and framework of the program* | 1<br>- *Results of the study* | 1<br>*Discussion of results* | 2 |
| **KAU** (n=1) | 1 | *Methodology* | 1 | 1 | *Conclusion and Suggestions* |
| **KFU** (n=1) | 1 | 1 | 1 | 1 | 1 |
| **NBU** (n=1) | 1 | *Methodology and Procedures* | *Findings of the Study* | *Discussion of the Study Results* | *Recommendations* |
| **Total (%)** | 14 (93%) | 5 (20%) | 5 (20%) | 9 (60%) | 7 (47%) |

| | |
|---|---|
| **(n=15)** | |

## Moves Structures in the International and the Saudi Corpora

To answer question one, a total of 30 research articles drawn from the Saudi and the international corpora (15 each) were analyzed to ascertain rhetorical variations between both corpora. To perform the analysis, first, the move structures of RAs were determined by using the genre-based approach. That is, the RA sections were investigated utilizing Swales' (2004) three-move revised Create-A-Research-Space (CARS) model to analyze Introduction sections, Peacock's (2011) three-move model to examine Methods sections, and Ruiying and Allison's (2003) models to analyze Results-Discussion-Conclusion sections.

The results of the moves/steps frequency in each section of the RAs, structural patterns, and move/pattern cyclicity, found within each section, are presented in the following sections, starting with the Introduction section, then the Methods, the Results, the Discussion sections, and ending with the Conclusion section. The results also are supported by a couple of examples drawn from both corpora to clarify the moves/steps in the present study. To make it clear, each example is cited based on the label illustrated in the previous chapter (i.e., Methodology), (S) for the Saudi corpus and (I) for the international one. (See Appendix B for the list of the research articles used in the current

study). For instance, S1 to S15 referred to articles taken from the Saudi corpus, whereas I1 to I15 dealt with articles found in the international corpus. Finally, the frequency of individual moves in each RA of the two corpora was calculated to determine whether a certain move in each IMRD was considered conventional or optional. The cut-off frequency of 70% was established as a potential measure of move stability in the present study. That is, a move must occur ranging from 70% to 100% in each corpus to be categorized as conventional. If the frequency of a move fell below 70% in each corpus, it was then labeled as optional. This criterion is applied to all the moves identified in every section of this study. The same criterion also was applied to any possible new moves or steps that might appear during the analysis of both corpora. The following section shows the results, as well as a brief description of each move/step.

**Introduction section.** The Introduction section encompasses three moves with a number of steps associated with each move: Move 1 *Establishing a territory*, Move 2 *Establishing a niche* and Move 3 *Presenting the Present Work*.

***The frequency of each move and step.*** The frequency of moves and steps found in both corpora are shown in Table 17. Clearly, the three moves occurred 100% on both corpora, therefore, all moves were conventional. The Table also indicates that there are similarities and few differences between the Saudi and the international corpora. The following sub-section details the results of each move and its associated steps.

Table 17: The frequency of moves and steps found in the Introduction section both corpora

| Moves/Steps | Saudi Corpus N=15 | International corpus N=15 |
|---|---|---|
| **Move 1— *Establishing a territory* (citations required)** <br> Step 1. Topic generalization of increasing specificity | **15 (100%)** | **15 (100%)** |

| | | |
|---|---|---|
| **Move 2— *Establishing a niche* (citations possible)** | **15 (100%)** | **15 (100%)** |
| Step 1.A. Indicating a gap        OR | 15 (100%) | 15 (100%) |
| Step 1.B. Adding to what is known | 14 (93%) | 15 (100%) |
| Step 2. (optional) Presenting positive justifications | 4 (26.6%) | - |
| **Move 3 — *Presenting the Present Work* (citations possible)** | **15 (100%)** | **15 (100%)** |
| Step 1.  (obligatory) Announcing present research descriptively and/or purposively | 14 (93.3%) | 15 (100%) |
| Step 2.  (optional) Presenting RQs or hypotheses | 13 (86.6%) | 13 (86.6%) |
| Step 3.  (optional) Definitional clarifications | 11 (73.3%) | 7 (46.6%) |
| Step 4.  (optional) Summarizing methods | 7 (46.6%) | 3 (20%) |
| Step 5.  (PISF**) Announcing principal outcomes | 1 (6%) | 1 (6%) |
| Step 6.  (PISF) Stating the value of the present research | 12 (80%) | 4 (26.6%) |
| Step 7.  (PISF) Outlining the structure of the paper | 2 (13.3%) | 1 (6%) |

**N=** refers to the total number of analyzed RAs in this study

**%** refers to the frequency of occurrence of a move

*Move 1: establishing a territory.* In the first move, the purpose is that to pave the way for the general topic being discussed. Authors provide general information relating to the topic, then continues to increase specificity before reviewing the literature of the study. As stated in Table 1, Move 1 appeared in the 30 research articles in both corpora with 100% occurrence. The authors usually employed three tenses to introduce and illustrate Move 1: present-simple, present-perfect, and past-simple. Furthermore, a number of bundles that indicated topic generalizability were used, such as *important, well-established, increasingly, considerable, and generally*. The following examples were found in Move 1 with bundles in bold; that is, "recurrent expressions, regardless of their idiomaticity, and regardless of their structural status" (Biber et al., 1999, p. 990):

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1. *Collaborative writing as an instructional activity that encourages interaction during the writing process **has been increasingly implemented in** L2 classes.* (I7)

2. *It **is well established that** second-language learners, particularly those whose L1s lack articles, have difficulty using articles correctly in English (e.g. Hawkins et al. 2006; Ionin et al. 2008; Snape 2008; Zdorenko and Paradis 2008).* (I2)

3. *Furthermore, peer interactions **have been found to be** an essential element that increases interest among the participants, motivates them to take responsibility for their own learning, and promotes their critical thinking skills (Nelson, 1994).* (S4)

4. *Fluency, accuracy, and complexity **have been considered to** be the three key aspects of language production (Ellis, 2009).* (S8)

*Move 2: establishing a niche.* Move 2 deals with illustrating and evaluating the weaknesses and strengths of the literature related to the study being investigated. The move encompasses two main steps: First, Step.1.A indicating a gap and Step1.B adding to what is known, and second is presenting positive justifications. As seen in Table 17, Move 2 appeared in both corpora with 100% occurrence, indicating that Move 2 was conventional. The two steps are further discussed below.

*Move 2: Step .1.A. indicating a gap.* This step is used to indicate a gap found in the literature. The step also allows for the establishment for the demand of the current topic or contribution being reviewed. This step, according to the Table 17, was conventional in both corpora. In the Saudi and the international corpora, the step occurred

in all articles (100%). To introduce this step, the authors incorporated a sentence with transitions and phrases, such as contradiction connectors (e.g., *however, yet, nevertheless*), or phrases such as (*few studies, little research, very little is known, no study has addressed*). The authors utilized present-simple and present-perfect tenses in this step. Below are a couple of examples about Step 1.A.

> (1) **Little research**, **however**, *has been conducted on how L2 writing teachers assess grammar in writing classrooms.* (I6)

> (2) **Nevertheless**, **there are few experimental** *studies that focus on the whole language approach as such possibility or technique is quite new to language instructors and researchers.* (S1)

*Move 2: Step .1.B. adding to what is known*. The function of this step is to explore and then present to the readers what is known in the literature about the study being discussed. This step was also conventional in both corpora as it occurred in 14 (93%) and 15 (100%) in the Saudi and the international corpora, respectively. As in the previous step, both corpora used present-simple and present-perfect tenses. A couple of bundles were utilized to indicate a number of studies in the literature, as in (*more/many studies, previous studies, a sizable amount of research*).

Examples:

> (1) **Previous studies have documented** *the development of rhetorical expertise by postgraduate students in native-English-speaking (NES) contexts (e.g., Bitchener & Basturkmen, 2006; Casanave & Vandrick, 2003; S. Cho, 2004; Dong, 1996, 1998; Pecorari, 2003); in these studies, language related issues*

*are compounded with the challenges of learning how to participate in a global*

*disciplinary community.* (I14)

(2) ***Many researchers are interested*** *in comparing the effectiveness of deductive*

*and inductive ways of teaching EFL.* (S10)

*Move 2: Step 2. presenting positive justifications.* The function of this step is to provide positive justification or reasons for conducting a study. As shown in Table 17, this move was optional in both corpora, as it appeared in only 4 (26.6%) articles in the Saudi corpus, and it did not occur in the international corpus. Present-simple and simple-future tenses were employed in this step.

Examples:

1. *This type of analysis* ***is hoped to detect*** *a long-term constraint on the*

   *production architecture that may be present in verbal working memory tasks.*

   (S3)

2. *Data collected from research aimed at examining the effect of using such*

   *innovative new technologies on reading comprehension* ***will definitely help***

   ***specialists*** *draw a clearer picture of what reading has become in the digital*

   *age.* (S5)

*Move 3: presenting the present work.* Move 3 is utilized to describe and explain the present study by involving seven steps. According to Table 17, Move 3 appeared in all research articles (100%) and so was considered a conventional move. The occurrences of the seven steps of Move 3 are discussed below.

*Move 3: Step 1. announcing present research descriptively and/or purposively.* This step was the most ubiquitous step because it was found in almost all research articles

to date and describes the aims and objectives of a study being conducted. The step appeared in 14 (93%) and 15 (100%) research articles in the Saudi and the international corpora, respectively. Therefore, Step 1 was a conventional step.  The lexical bundles employed in this step were varied (e.g., *the aim/goal of the study, the purpose of the study, the study investigated*). Two tenses were used to state Step 1, the simple-present and simple-past.

Examples:

1. *In this context, **the aim of the present study** was to explore the generic structure of academic applied linguistics book reviews in English and Brazilian Portuguese (BP) from a cross-cultural perspective, and thus contribute to our knowledge of how this genre is enacted in different languages and discourse communities.* (I5)

2. ***The goal of this investigation** is to simply compare the performance of two groups of Saudi EFL learners, one group taking a reading comprehension test in its internet-based format and a second group taking the same test in its print-based format, to determine whether reading printed texts is the same as reading online texts in relation to the students\x92 achievement.* (S5)

*Move 3: Step 2.  presenting RQs or hypotheses*. This step states research the questions or hypotheses of a study. Step 2 was the second most frequent step found in 26 (86.6%) research articles (13 RAs in each corpus). The authors introduced this step by utilizing such signals, such as *to address, would pose, and to answer.* In addition, present-simple tenses and past-simple tenses were used in this step.

Examples:

1. *In this study, we **address the following** four research questions* (I7)

2. *This research aims **to answer the following** questions* (S14)

*Move 3: Step 3. definitional clarifications***.** The step attempts to define and explain terminologies and jargons in a study. In both datasets, this step occurred in 11 (73.3%) research articles in the Saudi corpus, while it appeared in only 7 (46.6%) research articles in the international corpus. Therefore, this step was conventional in the Saudi dataset and optional in the international. Both present-simple and present-perfect tenses were used in Step 3, along with a few signal words, such as *defines*, *means*, and *refers to*.

Examples:

1. *Language aptitude **has been defined as** a specific talent for learning foreign languages that exhibits considerable variation between learners (Dornyei & Skehan, 2003, p. 613).* (I13)

2. *Collaborative learning is a term that **refers to** "a variety of educational approaches involving joint intellectual effort by students, or students and teachers together" (Smith and MacGregor, 1992: 9).* (S4)

*Move 3: Step 4. summarizing methods*. The function of Step 4 is to introduce briefly the method employed in a study. The step appeared relatively less than the three moves presented above. The step, therefore, was optional because it was shown in 7 (46.6%) research articles in the Saudi corpus compared to 3 (20%) in the international corpus. The signal indicators used to introduce this step were limited, such as *investigated*, *compared*, *conducted*. As for the tenses, present-simple and past-simple were employed.

Examples:

1. *To empirically explore the notion of NS, as recommended by Escudero and Sharwood Smith (2001), **we first investigated** to what extent, in a sample of 98 adult NSs of Dutch, differences in their age and in the level of their EP are associated with their lexical knowledge, lexical fluency, and lexical working memory. Lexical knowledge **was assessed** with a vocabulary and a word association test, lexical fluency was assessed in four computer-administered speed tasks (reaction times), and lexical working-memory capacity with two span tests.* (I1)

2. *This study was **conducted on two groups**: an experimental group that would be taught by the drama method, and a control group that would be taught by the traditional method guided by the teacher's book.* (S11)

*Move 3: Step 5. announcing principal outcomes.* The step aims to present a list of outcomes derived from a study. The step was the least frequent occurring in both datasets, one (6%) article in each corpus, which was then considered an optional.

Examples:

1. ***The study suggests** a typology of techniques and exercises and an observation procedure that we think can contribute to determine how L2 teachers choose to draw students\x92 attention to form.* (I8)

2. *Such investigation **may ultimately lead to** different beliefs and practices from those observed in other contexts.* (S12)

*Move 3: Step 6. Stating the value of the present research* This step deals with presenting the value and the merits of a study relating to implications. In both corpora, the Saudi corpus outnumbered the international corpus regarding Step 6, 12 (80%) and 4

(26.6%), respectively. Therefore, Step 6 was conventional in the Saudi corpus, whereas it was optional in the international corpus. The authors employed such signal bundles as *shed light on* and *the significant of* to introduce Step 6 in present-simple and simple-future tenses.

Examples:

1. *The inquiry of these questions is expected **to shed light on** the dynamics of peer interaction across writing tasks.* (I7)

2. ***The significance of the** current study is twofold.* (S2)

*Move 3: Step 7. outlining the structure of the paper*. The aim of this step is to present the structure of a research article to the readers. This step was found in only three research articles with 2 (13%) in the Saudi corpus and 1 (6%) in the international corpus. The present simple tense was predominantly used in the step. Moreover, sequence words were mainly employed to outline the structure of a paper, such as *first, next, followed by*, and *finally*.

Examples:

1. *This study **first focuses on** how this diverse group of scholars acquired and maintain discipline-specific literacy skills in English, probing factors concerning the dissemination of their work such as language choice and publishing outlets, and their perceptions of linguistic and rhetorical challenges of disciplinary writing. **Finally**, I investigate strategies that these scholars have developed to facilitate their drafting in English of texts intended for journal submission.* (I14)

2. *The **next section** provides an overview of the current study, **followed by** a description of the study methods employed in this study.* (S9)

***Move sequences and cyclicity of the Introduction section from the two corpora.***

The analysis of move structure of the Introduction section is described here in terms of move sequences, move cyclicity (i.e., recurring), and move pattern. To begin with, the move sequences and move cyclicity found in the Introduction section are presented in Table 18. As stated in the previous chapters, move cyclicity refers to the occurrences of move in each section. For instance, if there was a move pattern like M1-M2-M3-M2, then M2, here, was considered cyclical because it occurred two times in the move pattern. Table 18 displays some of the similarities and differences between both corpora, in relation to the opening move, closing move, and cyclical move.

Table 18: Sequences and Recurring Moves in the Introduction Section

| | Introduction | Opening Move | Closing Move | Recurring Move |
|---|---|---|---|---|
| **Saudi Corpus N=15 (%)** | **M1** *Establishing a territory* | 14 (93.3%) | 0 | 19 |
| | **M2** *Establishing a niche* | 0 | 5 (33.3%) | 44 |
| | **M3** *Presenting the Work* | 1 (6.6%) | 10 (66.6%) | 46 |
| **International Corpus N=15 (%)** | **M1** | 12 (80%) | 0 | 18 |
| | **M2** | 2 (13.3%) | 0 | 33 |
| | **M3** | 1 (6.6%) | 15 (100%) | 36 |

As demonstrated on Table 18, 14 (93%) research articles in the Saudi corpus began with Move 1 (i.e., *Establishing a territory*), followed by Move 3 (i.e., *presenting the present work*) which occurred only once (6.6%). On the other hand, in the

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international corpus, the Introduction was opened by Move 1 in 12 (80%) research articles, followed by Move 2 (2 RAs with 13.3%), and lastly Move 3 only once (6.6%). As for closing the Introduction sections, the results indicated that Move 3 was utilized in 10 RAs (66.6%) to end the Introduction section. Also, Move 2 was used in 5 RAs (33.3%). However, the results of the international corpus revealed that Move 3 was predominantly employed in all RAs (100%) to end the Introduction section.

Lastly, the analysis of move cyclicity in both datasets indicated that Move 3 was highly cyclical, followed by Move 2 and then Move 1. As illustrated in Table 18, Move 3 frequently occurred 46 times in the Saudi corpus, while it occurred 36 times in the international corpus. The second most frequent move was Move 2, where it was found to occur 44 times and 33 times in the Saudi and the international corpora, respectively. Move 1 was the least recurring move with 19 times in the Saudi and 18 times in the international corpus. The results implied that the authors, especially in the Saudi corpus, presented several gaps, as well as longer literature, followed by research purposes, objectives, and how to address the research gaps. The following sections displays the analysis of move cyclicity which produces various move structures.

***Move structures of the Introduction section from the two corpora.*** Since the analysis carried out in both corpora provides various move structure, only move structures that were found in at least two research articles in both corpora were included in the study. The reason for creating this criterion relied on the fact that the move structure represented preferred patterns in the Introduction section. Also, any move structure that did not occur in at least two RAs was excluded from the analysis. This

criterion was applied to the remaining sections (i.e. Methods, Results, Discussion, Conclusion).

As illustrated in Table 19, the most preferred move structures in the Saudi corpus were M1-M3-M2-M3 and M1-M2-M3-M2, as they occurred twice in the corpus. On the other hand, the international corpus had more varieties of move structure. The most preferred structure was M1-M2-M3-M2-M3, which occurred in 4 research articles, followed by (M1-M3-M2-M3), (M1-M2-M3) and (M1-M2-M3-M2-M3-M2-M3), where they occurred twice in RAs in the international corpus. The most frequent structure in the international corpus, i.e., M1-M2-M3-M2-M3, was also found in only one RA in the Saudi dataset. In addition, both datasets shared this structure M1-M3-M2-M3, which occurred in two RAs in each corpus. Furthermore, the analysis revealed that the typical move structure, proposed by Swales (1990), M1-M2-M3 was found in the majority of move structures, which consequently was considered a highly cyclical pattern. The excluded move patterns showed high frequent moves and deviations from Swales' move structure especially in the Saudi corpus (e.g., M1-M3-M2-M1-M2-M3-M2-M3-M2-M3-M2-M3-M2), whereas this phenomenon was relatively rare compared to the international corpus.

Table 19: Move structures of the Introduction section from the two corpora

| Introduction | Saudi Corpus N=15 (%) | International Corpus N=15 (%) |
|---|---|---|
| **M1-M2-M3-M2-M3** | 1 (6.6%) | 4 (26.6%) HC[1] |
| **M1-M3-M2-M3** | 2 (13.3%) | 2 (13.3%) |
| **M1-M2-M3** | 1 (6.6%) | 2 (13.3%) HC |
| **M1-M2-M3-M2-M3-M2-M3** | - | 2 (13.3%) |

| | | |
|---|---|---|
| **M1-M2-M3-M2** | 2 (13.3%) | - |

In summary, the three moves were considered conventional in the Introduction sections in both sets of data based on the criteria established in Chapter 3. As for the most preferred move pattern, the Saudi corpus preferred two move patterns (i.e., M1-M3-M2-M3 and M1-M2-M3-M2), whereas international corpus used this pattern the most (i.e., M1-M2-M3-M2-M3). Both datasets shared the most cyclical move: Move 3 followed by Move 2 and lastly Move 1.

**Methods section.** The Methods section of RAs is analyzed by Peacock's (2011) model, which encompasses seven moves: *Overview, Location, Research Aims/ Questions/ Hypotheses, Subjects/Materials, Procedures, Limitations, and Data analysis*. The results of move frequency, move patterns, and move cyclicity found in the Saudi and the international corpora are reported the following sections.

***The frequency of each move.*** As shown in Table 20, the results revealed that there are some differences and similarities between the Saudi and the international corpora in terms of move frequency. That is, all seven moves were found in the Saudi dataset, whereas the international dataset employed five moves. The detailed explanation and frequency of each move are illustrated below.

Table 20: The frequency of moves found in the Method section in both corpora

| **Moves/Steps** | Saudi Corpus N=15 | International corpus N=15 |
|---|---|---|
| **Move 4**— *Overview* | **11 (73.3%)** | **4 (26.6%)** |
| **Move 5**— *Location* | **13 (86.6%)** | **12 (80%)** |
| **Move 6**— *Research Aims/ Questions/ Hypotheses* | **3 (20%)** | **-** |
| **Move 7**— *Subjects/Materials* | **15 (100%)** | **15 (100%)** |
| **Move 8**— *Procedures* | **14 (93%)** | **15 (100%)** |

| | | |
|---|---|---|
| **Move 9—** *Limitations* | **1 (6.6%)** | **-** |
| **Move 10—** *Data Analysis* | **10 (66.6%)** | **14 (93%)** |

*Move 4: overview.* This move provides a brief overview and outline of the research method, either at the beginning or throughout the Methods section. As stated in Table 20, this move appeared in 11 RAs (73.3%) in the Saudi corpus, whereas it occurred in 4 RAs (26.6%) in the international corpus. The results indicated that Move 4 is conventional in the Saudi dataset, while it was optional in the international counterpart. The signal pointers employed to introduce this move included *explore, designed to*, and *utilized*. Both present-simple tenses and past-simple tenses were used in this move. Below are examples relating to Move 4:

1. *The assessment capacity framework proposed herein is **derived from** an earlier model developed by Davis (2012a, 2015), which was used **to explore the** impacts of accreditation-mandated SLO assessment on college FL programs (Davis, 2012a, 2012b, 2015; see also Kondo-Brown et al., 2014).* (I11)

2. *In a mixed methods triangulation research design (Creswell & Plano Clark, 2007), qualitative (qual) and quantitative (quan) data sources **were combined to answer these questions**.* (I6)

3. *This **study was experimentally designed to** assess the effects of a wiki in an advanced writing online course, utilizing a pretest, posttest, control group design.* (S13)

4. *In the present study, **two experiments are held to examine** how far mental processes and strategies could affect speech production.* (S3)

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*Move 5: location.* This move aims to describe the research site, the geographical location, where the research took place. Move 5, as shown in Table 20, was considered conventional, as it presented in 13 RAs (86.6%) and 12 RAs (80%) in the Saudi and the international corpora, respectively. Past-simple tense was predominantly used in this move. The signal devices employed in Move 5 were limited to few bundles, such as *study at a university, selected from a school, located in* and *recruited from*. It is worth noting that, according to Peacock (2011), this move is supposed to provide detailed information about the location of the study. However, only a few studies (i.e., I8, I14, S9, S15) described the location in depth, while the rest of studies briefly mentioned the site of the studies.

Examples:

1. *Participants in this study were 72 students **recruited from two high schools in Slovakia** with a Slovak-English CLIL (Content and Language Integrated Learning) bilingual programme.* (I3)

2. *Our focus of attention being on the teachers' practices, we will briefly **describe the context of the study** and the teachers who participated in it.* (I8)

3. *In this study, **the educational districts were divided into six districts** which are the primary sampling units and from each district a representative city was chosen as secondary sampling units.* (S7)

*Move 6— research aims/ questions/ hypotheses.* This move describes the goals and objectives of a research and outlines the questions or hypotheses to be answered. The move was found only in the Saudi corpus, where it appeared in 3 RAs (20%), thereby

making Move 6 optional. Both present-simple tenses and past-simple tenses were used in this move. The signal devices were *designed to*, and *to answer*.

Examples:

1. *This study **was designed to test** the following null hypotheses.* (S13)

2. *The current study, extended over two consecutive semesters in the academic year 2008/2009, **has been designed to measure** the impact of introducing collaborative activities within peer response groups on the level of social help and support that the students feel they have got from their peers.* (S4)

*Move 7— subjects/materials.* The function of this move is to describe the subjects and participants of a research study. The move also is used to illustrate materials applied in the study. This move prevailed in all RAs (100%) in both datasets, which was considered as conventional. Since this move was rather long and included many details, various linguistics devices were employed to introduce the move: For example, *participants, subjects, graduate student, sample, teachers, male/female, participate, consist of, randomly selected, incorporated*. Moreover, past-simple tense was favored in the two datasets. Below are examples of subject and materials.

Examples:

1. *The **participants** were 161 first- and second-year university **students** learning English as a foreign language (EFL) at three universities in Taiwan.* (I9)

2. *The **participants** in the present study were 52 Saudi post-beginner level high school students in Riyadh (Arabic mother tongue), of whom 24 were **female** and 28 were **male**.* (S8)

3. *The second **instrument of the test** was the Inventory of Learning Processes **Questionnaire** (ILPQ) (Al-Hijawi, 1998). (S2)*

4. *This study incorporated **standard survey methodologies** to gain insight into the online reading strategies of EFL learners, aiming to specifically examine the possible reading proficiency level and gender-based disparities in orchestrating such online strategies. (S9)*

5. *Participants performed seven **lexical tasks** and four **speaking tasks**, administered in two to three **sessions**, totalling 180min. (I1)*

*Move 8— procedures.* This move describes the data-collection procedures taken by the researchers. This move was conventional, as it occurred in 14 RAs (93%) and 15 RAs (100%) in the Saudi and the international corpora, respectively. Past-simple tense was used to introduce Move 8. Furthermore, several bundles and time-relationship adjuncts were identified: *performed, asked, administered, data were gathered, respond, next, followed by, were required to*.

Examples:

1. *Participants **performed** a familiarization task **followed by** the four test tasks presented in the same order for all participants. (I1)*

2. *The participants **were required to work** in pairs to perform an information-gap task (the street map task). In this task, one student played the role of a tourist and the other, that of a tourist information officer. (S8)*

*Move 9— limitations.* Move 9 describes the ways in which the research was restricted or limited by providing reasons for the limitations. This move appeared only in

one RA (6.6%) in the Saudi corpus, whereas, it was entirely omitted in the international corpus. It was concluded that this move was optional in the Saudi dataset.

Examples:

1. *Because of the **difficulty** of getting exact numbers of English teachers at the secondary schools from the Ministry of Education, the researchers **felt** that using cluster sampling **would help** in controlling the population which is widely distributed geographically.* (S7)

2. *The paper-based answer sheets were used by both groups because of the results of a pre-pilot test that showed **a difficulty** among test takers to type in English, which **could have hindered** the ability of some participants to complete the test in the time allotted.* (S5)

*Move 10— data analysis.* Move 10 describes how the data were analyzed and the analysis method used. Based on Table 20, 10 Methods sections (66.6%) published locally comprised Move 10, while the international Methods sections contained 14 Methods sections (93%) comprising Move 10. Thus, Move 10 was optional in the Saudi dataset and conventional in the international dataset. To describe the process of data collection, such signal devices as *categorized, analyzed,* as well as time-relationship adjuncts as *first, second, next, then, followed by* and *after* were frequently used to introduce this move in the past-simple tense.

Examples:

1. ***After** instructing the coders on how to identify and code the FFI interventions, the **first two classes** of each individual teacher were **viewed** and **coded separately** and **then coded** through a process of consensus between the coders*

*during which they compared their coding and agreed on the codes. Next, the*

*coders separately identified and coded, in the rest of the corpus, all of the FFI*

*interventions.* (I8)

2. ***Following*** *each observation and interview,* ***data were analyzed*** *for each*

   *teacher individually in order to ensure integrity before reaching the stage if*

   *making generalizations across all teachers. Data* ***were analyzed in a cyclical***

   ***process*** *as fieldwork progressed to generate further themes to be emphasized,*

   *as well as in subsequent observations and interviews.* (S12)

***Move sequences and cyclicity of the Methods section from the two corpora.*** The

Methods section analysis, relating to move structure, is described here in terms of move

sequences, move cyclicity, and move patterns. Table 21 provides results for the analysis

of opening, closing and recurring (i.e., cyclical) moves. As for the opening move, nine

Methods sections (60%) published in the Saudi journals were opened by Move 4,

followed by four sections that employed Move 7. On the other hand, in the international

journals, eight Methods sections (53.3%) were begun by Move 7, followed by Move 4 in

five Methods sections (33.3%). Regarding the closing move, unlike the international

journals, the Methods section published in the Saudi journals showed varieties in closing

the section, in which four moves were used (i.e., M6, M7, M8, M10). Overall, both the

Saudi and the international corpora closed Methods sections by Move 10, where the

move occurred 13 times (86.6%) and 7 times (46.6%) in the international and the Saudi

datasets, respectively. That is, Move 10 was the most favored strategy for closing the

Methods sections. As for the cyclical move, both datasets shared a similar degree of

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cyclical moves. Nevertheless, Move 7 (*Subjects/Materials*) was considered as the most cyclical followed by Move 8 (*Procedures*).

Table 21: Move sequences and recurring of the Methods section from the two corpora

| | Methods | Opening Move | Closing Move | Recurring Move |
|---|---|---|---|---|
| **Saudi Corpus N=15 (%)** | **M4** – *Overview* | 9 (60%) | 0 | 13 |
| | **M5** – *Location* | 1 (6.6%) | 0 | 13 |
| | **M6** – *Research Aims/ Questions/ Hypotheses* | 1 (6.6%) | 1 (6.6%) | 3 |
| | **M7** – *Subjects/ Materials* | 4 (26.6%) | 4 (26.6%) | 32 |
| | **M8** – *Procedures* | 0 | 3 (20%) | 20 |
| | **M9** – *Limitations* | 0 | 0 | 1 |
| | **M10** – *Data Analysis* | 0 | 7 (46.6%) | 11 |
| **International Corpus N=15 (%)** | **M4** | 5 (33.3%) | 0 | 5 |
| | **M5** | 2 (13.3%) | 0 | 13 |
| | **M6** | 0 | 0 | 0 |
| | **M7** | 8 (53.3%) | 1 (6.6%) | 28 |
| | **M8** | 0 | 1 (6.6%) | 18 |
| | **M9** | 0 | 0 | 0 |
| | **M10** | 0 | 13 (86.6%) | 14 |

*Move structures of the Methods section from the two corpora.* Table 22 presents the results of the analysis of move patterns found in both datasets. As stated earlier, the only pattern that occurred in at least two Methods sections was included in the study. As shown in Table 22, the Methods sections published in the international journals exhibited fewer varieties than its counterpart (i.e., the Saudi corpus). That is, three different move patterns were identified in the international corpus, whereas these three patterns occurred in almost 66.6% of the corpus. The most frequent move structure was M4-M2-M4-M5-

M7, which presented in five Methods sections (33.3%) in the international corpus, while it appeared only once in the Saudi counterpart. The second most frequent move patterns were M1-M4-M2-M4-M5-M7 and M1-M4-M5-M7, where their occurrences in the international corpus were three times (20%) and two times (13.3), respectively. On the other hand, the Methods section found in the Saudi dataset showed high diversity. That is, 15 different move patterns were found, yet, excluded due to not meeting the criteria mentioned earlier (i.e., a move pattern should appear in at least two RAs). Finally, the move pattern M4-M5 was highly cyclical in both datasets, as it was found in almost every pattern.

Table 22: Move structures of Methods section from the two corpora

| Methods | Saudi Corpus N=15 (%) | International Corpus N=15 (%) |
|---|---|---|
| M7-M5-M7-M8-M10 | 1 (6.6%) | 5 (33.3%) |
| M4-M7-M2-M7-M8-M10 | - | 3 (20%) |
| M4-M7-M8-M10 | - | 2 (13.3%) |

To sum up, four moves (i.e., M5-M7-M8-M10) and three moves (i.e., M4-M7-M8) were identified to be conventional in the international and the Saudi sets of data, respectively. While the majority of RAs in the international corpus opened the Methods section with Move 7, Move 4 was used to open the section in the Saudi corpus. Both corpora tended to close the Methods section with Move 10. In addition, Move 7 was the most cyclical move in the Methods section. Lastly, (M7-M5-M7-M8-M10) was the most frequent move structure in the Methods section for the international corpus, while the Saudi corpus' Methods section exhibited diverse move patterns.

**Results section.** The Results section in the Saudi and the international corpora was analyzed by employing Ruiying and Allison's (2003) model. The model encompasses six moves: *Preparatory information, Reporting results*, *Commenting on results, Summarizing results*, *Evaluating the study*, and *Deductions from the research.* The results of move frequency, move patterns, and move cyclicity found in the Saudi and the international corpora are presented in the following sections.

***The frequency of each move and step.*** Table 23 shows that three moves (M11, M12, M13) were conventional in the Saudi and the international corpora. Also, Move 16 (*Deductions from the research)* was entirely omitted in both corpora. A detailed explanation and the frequency of each move are illustrated below.

Table 23: The frequency of moves found in the Results section in both corpora

| **Moves/Steps** | Saudi Corpus N=15 | International corpus N=15 |
|---|---|---|
| **Move 11—*Preparatory information** | **14 (93%)** | **11 (73.3%)** |
| **Move 12—*Reporting results** | **14 (93%)** | **15 (100%)** |
| **Move 13—*Commenting on results** | **15 (100%)** | **14 (93%)** |
| Step 1: Interpreting results | 14 (93%) | 14 (93%) |
| Step 2: Comparing results with literature | 3 (20%) | 5 (33.3%) |
| Step 3: Evaluating results | 4 (26.6%) | - |
| Step 4: Accounting for results | 3 (20%) | 5 (33.3%) |
| **Move 14—*Summarizing results** | **5 (33.3%)** | **4 (26.6%)** |
| **Move 15—*Evaluating the study** | **5 (33.3%)** | **-** |
| Step 1: Indicating limitations | 3 (20%) | - |
| Step 2: Indicating significance/ advantage | 3 (20%) | - |
| **Move 16—*Deductions from the research** <br> Step 1: Recommending further research | - | - |

*Move 11—preparatory information.* According to Ruiying and Allison (2003), this move functions as a reminder and connector between sections, as it provides relevant information for the presentation of results. Move 11 occurred 14 times (93%) in the

Results sections in the Saudi corpus and 11 times (73.3%) in the international; hence, this move was conventional. The majority of the Results section utilized present-simple tense to introduce preparatory information, with such signal devices and bundles as *purpose*, *organized by*, *in the following sections*, and *research questions*.

Examples:

1. *The findings **are organized by theme** rather than by data source, and, where possible, findings from both data sources have been included for each theme.* (I6)

2. ***In the following sections**, we present a detailed picture of the two groups wiki interactions from the above-mentioned aspects.* (I7)

3. *The results **are presented below in two formats**.* (S5)

4. ***The purpose of this study** was **to investigate** the effect of drama as a teaching procedure on developing the students' oral proficiency.* (S11)

*Move 12—reporting results.* The purpose of this move is to present the results of a study, normally with relevant evidences such as statistics and examples. This move was conventional in both datasets, as it occurred in 14 RAs (93%) in the Saudi corpora and in 15 RAs (100%) in the international corpora. The lexical devices used to state results were reporting verbs (i.e., *show, present, reveal*, *report*) and nouns to posit the place of results as in *tables, figures, paragraph*. Three tenses were used to provide results: present-simple tense, past-simple tense, and passive voice.

Examples:

1. *The descriptive statistics are **reported** in **Table** 5.* (I3)

2. *As **Figure** 1 **shows** the interaction effect is mainly caused by the low scores of the low EP Ss in the youngest group.2.* (I1)

3. ***Table** 1 below **illustrates** the number of errors made by the 20 subjects who were asked to read the ten tongue twisters by Wilshire (1999:110) once.* (S3)

4. ***Table 7.1 lists** teachers' responses to all questionnaire items in descending order.* (S7)

*Move 13—commenting on results.* As noted by Ruiying and Allison (2003), the purpose of this move is to establish the meaning and significance of the research results, in relation to the relevant field. This Move may include information and interpretations that go beyond the "objective" results. This move encompasses four steps: Interpreting results, Comparing results with literature, Evaluating result, and Accounting for results. The analysis of this move revealed that this move was conventional, with 15 occurrences (100%) and 14 occurrences (93%) in the Saudi and the international sets of data, respectively. The following subsections illustrate the analysis of the four steps.

*Move 13: Step 1. interpreting results.* The function of this step involves interpreting, commenting, and making claims in the context of the study. The step appeared in 14 Results sections (93%) in both corpora, which indicated it was conventional. To introduce Step 1, present-simple tense as well as a number of interpreting verbs were utilized. For example, *indicate, suggest, interpret,* and modal verbs such as *might* and *would* were among the lexical devices employed in the Results section in both datasets.

Examples:

1. *Results **indicate** that task played a **significant** role, showing that participants' performance was different between tasks, whereas the **nonsignificant** interaction of task and L1 indicate that this difference between tasks was consistent across languages.* (I12)

2. *Results, however, **should be interpreted** with caution since (a) many of the item data sets demonstrated non-normal distributions (33% appeared normal; 13%, bimodal; 24%, positively skewed; 30%, negatively skewed), and (b) the total number of observations (roughly a 3:1 ratio of cases to variables in this study) did not conform well to recommendations for minimum factor analysis n-sizes.* (I11)

3. *This result **might indicate** that having a computer lab in school might encourage teachers to use that lab to teach English as a second language.* (S7)

4. *This **implies** that the students have almost the same level of knowledge of passive voice in the English Language.* (S10)

*Move 13: Step 2. comparing results with literature.* This step serves to compare and link the results of a study with its related literature. The step appeared to be optional in the Results section in both datasets, as it occurred in three Results sections (20%) in the Saudi corpus and in five Results sections (33.3%) in the international counterpart. The authors used such verbs as *support, commensurate*, *confirm* and *corroborate*, as well as bundles such as *in line with* to introduce Step 2. Furthermore, present-simple tense was used in this step.

Examples:

1. *These findings are **in line with** the outcomes of **previous studies** which reported that students learning through their L1 outperformed their peers who learned disciplinary terms through their second language (Haynes & Baker, 1993; Lessard-Clouston, 2006).* (I3)

2. *This finding **supports** Piaget's theory that students learn more effectively through social interaction. It also **supports** the premise that the drama method is far more important than the traditional teaching techniques.* (S11)

*Move 13: Step 3: evaluating results.* This step provides evaluation for outcomes and results of a study. The step appeared only in four Results sections (26.6%) in the Saudi corpus, and it was omitted in the international counterpart. In addition to the present-simple tenses and past-simple tenses, the keywords found to introduce this step were *approved by, confirm, agree with,* and *hypothesis*. This step was usually associated with confirming or rejecting hypotheses.

Examples:

1. *This result **validates the hypothesis** set early in this respect (i.e., EFL major student teachers' have a low writing proficiency level).* (S15)

2. *Therefore, with using **the null hypothesis**, the study's hypothesis **ought to be rejected** and the alternative one should be **accepted**.* (S1)

*Move 13: Step 4: accounting for results.* Step 4 allows authors to provide reasons and explanations about (un)expected results. This step was optional in both datasets, as it occurred in three Results sections (20%) and in five Results sections (33.3%) in the Saudi and the international corpora, respectively. The lexical devices used in this steps were *contributed to, may be due to, attributed to*. This step used present-simple tense.

Examples:

1. *As this study investigated students' lexical gains in terms of expressible word knowledge, a certain portion of minor incorrect components **could be attributed to** the transfer of information from one language to another as well as to the semantic changes (e.g. extension or narrowing) that can result from paraphrasing and use of one's own words.* (I3)

2. *The fact of being exposed to a new learning style **could have had** an emotional impact on the subjects and prevented them from having positive attitudes to collaboration, through which they receive social support from their peers.* (S4)

*Move 14—summarizing results.* The purpose of Move 14 is to summarize study results. The move occurred in five Results sections (33.3%) and in four Results sections (26.6%) in the Saudi and the international corpora, respectively, thereby making this move optional. The keywords utilized in this move were *in summary, in general, summarized in, overall*, which all occurred in present-simple tenses and past-simple tenses.

Examples:

1. ***In summary**, the significant effects of task were too small to give reasonably strong evidence in support of our prediction that facilitating access to meaning would increase L1 transfer.* (I12)

2. ***To sum up**, it is clear from the findings of the study that the drama procedure was very significantly effective in improving positively the students' speaking ability.* (S11)

*Move 15—evaluating the study.* The purpose of Move 15 is to provide an evaluation of the study in terms of two steps: indicating limitations and indicating significance or advantage. This move prevailed only in the Saudi corpus and omitted in the international counterpart. As shown in Table 23, this move was optional as it occurred in five Results sections (33.3%) in the Saudi dataset. Below is the analysis of the two steps stated earlier.

*Move 15: Step 1. indicating limitations.* Step 1 allows authors to list limitations of a study. This step was optional in the Saudi dataset, as it was presented in three Results sections (20%), therefore, the step was optional. The authors employed words and phrases that refer to difficulty and limitations encountered while conducting a study, such as *suffer* and *might have weakened*, where the past-simple tense was used in this step.

Examples:

1. *During the two semesters, the researcher observed that some students* **suffered** *a deficit in basic collaborative skills, which* **might have weakened** *their ability to function educationally, socially, and emotionally across a variety of collaborative tasks.* (S4)

*Move 15: Step 2. indicating significance/advantage.* This step allows authors to expound on the advantages and implications of a study. The step was also optional and so only occurred in three Results sections (20%) in the Saudi dataset. The writers used present-simple tense and past-simple tenses, along with such keywords as *help* and *implication* to introduce the step.

Examples:

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1. *That performance will **definitely help** them use the English language **more**
   **properly and effectively**, especially in an age where the main goal of learning
   English is to equip learners for better communication in all walks of life;
   because of more interdependence among countries, an increase in
   international travel and the chance to meet people from other countries rises.*
   (S1)

2. *This finding carries **implications** for the teaching of English in Saudi Arabia
   in general and EFL teacher education in particular.* (S15)

**Move sequences and cyclicity of the Results section from the two corpora.** The
analysis of move sequences and move cyclicity of the Results section is illustrated in
Table 24, which highlights opening, closing, and cyclical moves found in both corpora.
Regarding the opening move, as shown in Table 24, the majority of the Results sections
in the Saudi dataset began the section with Move 11 in twelve Results sections (80%),
followed by Move 12 with three sections (20%). On the other hand, in the international
dataset, the Results section began with both Move 11 and Move 12, in seven sections
(46.6%) and eight sections (53.3%) sections, respectively. As for the closing move, both
corpora showed varieties when they ended the Results section. That is, the Results
sections published in the Saudi journals tended to end the section by Move 13 in eight
Results sections (53.3%), whereas the eight Results sections (53.3%) published
internationally ended the section by Move 12. Furthermore, Move 12 in the Saudi corpus
and Move 13 in the international counterpart ranked second in ending the section with
four sections (26.6%) for each dataset.

Table 24: Move sequences and recurring of the Results section from the two corpora

| | Results | Opening Move | Closing Move | Recurring Move |
|---|---|---|---|---|
| **Saudi Corpus N=15 (%)** | **M11** *Preparatory information* | 12 (80%) | 0 | 41 |
| | **M12** *Reporting results* | 3 (20%) | 4 (26.6%) | 72 |
| | **M13** *Commenting on results* | 0 | 8 (53.3%) | 65 |
| | **M14** *Summarizing results* | 0 | 1 (6.6%) | 7 |
| | **M15** *Evaluating the study* | 0 | 2 (13.3%) | 4 |
| | **M16** *Deductions from the research* | 0 | 0 | 1 |
| **International Corpus N=15 (%)** | **M11** | 7 (46.6%) | 0 | 15 |
| | **M12** | 8 (53.3%) | 8 (53.3%) | 67 |
| | **M13** | 0 | 4 (26.6%) | 53 |
| | **M14** | 0 | 3 (20%) | 10 |
| | **M15** | 0 | 0 | 0 |
| | **M16** | 0 | 0 | 0 |

In regards to the cyclical move, the Saudi corpus demonstrated more cyclical moves than the international corpus. Although the Results section published locally in Saudi journals shared close numbers of cyclical moves, especially M12 and M13, both corpora differed in the number of cyclical moves in M11. As for the similarities, the most frequent move in both corpora was Move 12, with 72 occurrences in the Saudi dataset and 67 occurrences in the international dataset, followed by Move 13 for the Saudi and the international dataset, (65 occurrences and 53 occurrences, respectively). Regarding the differences, the Results section in the Saudi corpus revealed that M11 is highly cyclical (41occurrences) compared to the international corpus (15 occurrences). A Chi-Square Goodness of Fit Test that was run to determine whether this difference was

statistically significant; therefore, a statistically significant difference was found ($X^2$ [1] = 0.0008, $p < .05$).

*Move structure of Results section from the two corpora.* The analysis of move patterns found in the Results section is presented in Table 25. As shown in the Table, the Results section in the international corpus demonstrated two patterns (M11-M12-M13-M12-M13-M12-M13-M12 and M12-M13-M12-M13-M12-M13-M12), where each of these two patterns occurred two times in the dataset. On the other hand, the Results section published locally in Saudi journals presented diversity in move structure. It is worth noting that the most highly sub-patterns were the combination of M12 and M13. These two moves, the most frequent ones as stated earlier, appeared in almost all move patterns (M12-M13-M12), regardless if the patterns mee the criteria set earlier in the previous sections.

Table 25: Move structures of the Results section from the two corpora

| Results | Saudi Corpus N=15 (%) | International Corpus N=15 (%) |
|---|---|---|
| **M11-M12-M13-M12-M13-M12-M13-M12** | - | 2 (13.3%) |
| **M12-M13-M12-M13-M12-M13-M12** | - | 2 (13.3%) |

In brief, the analysis of the Results section revealed three conventional moves in both corpora. In addition, the Saudi corpus opened the Results section mostly with M11, whereas the international counterpart began the section almost equally with both M11 and M12. Furthermore, the Results section was closed by four moves mostly by M13 in the Saudi dataset, while the international Results section was ended by four moves mostly

with M12. Lastly, only two move structures were identified in the international dataset, whereas the Saudi dataset produced a variety of move structures.

**Discussion section.** The Discussion section in both corpora was analyzed using Ruiying and Allison's model, which encompasses seven moves: *Background information, Reporting results*, *Summarizing results*, *Commenting on results, Summarizing the study*, and *Evaluating the study*. The results of the frequency of each move/step found in both corpora are presented in Table 26.

Table 26: The frequency of moves found in the Discussion section in both corpora

| Moves/Steps | Saudi Corpus N=15 | International corpus N=15 |
| --- | --- | --- |
| **Move 17—*Background information*** | **7 (46.6%)** | **9 (60%)** |
| **Move 18—*Reporting results*** | **9 (60%%)** | **14 (93%)** |
| **Move 19—*Summarizing results*** | **8 (53.3%)** | **8 (53.3%)** |
| **Move 20—*Commenting on results*** | **15 (100%)** | **15 (100%)** |
| Step 1: Interpreting results | 11 (73.3%) | 14 (93%) |
| Step 2: Comparing results with literature | 15 (100%) | 15 (100%) |
| Step 3: Accounting for results | 13 (86.6%) | 13 (86.6%) |
| Step 4: Evaluating results | 5 (33.3%) | 3 (20%) |
| **Move 21—*Summarizing the study*** | **3 (20%)** | **4 (26.6%)** |
| **Move 22—*Evaluating the study*** | **10 (66.6%)** | **9 (60%)** |
| Step 1: Indicating limitations | 1 (6%) | 4 (26.6%) |
| Step 2: Indicating significance/ advantage | 6 (40%) | 6 (40%) |
| Step 3: Evaluating methodology | 6 (40%) | 3 (20%) |
| **Move 23—*Deductions from the research*** | **9 (60%)** | **10 (66.6%)** |
| Step 1: Making suggestions | 7 (46.6%) | 9 (60%) |
| Step 2: Recommending further research | 3 (20%) | 7 (46.6%) |
| Step 3: Drawing pedagogic implication | 4 (26.6%) | 5 (33.3%) |

*The frequency of each move and step.* As illustrated in Table 26, all seven moves/steps showed up in the Saudi and the international corpora. Move 20 (*Commenting on results*) was conventional in both corpora, which appeared in all the

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Discussion sections (100%). As for differences, Move 18 (*Reporting results*) was considered conventional in the international dataset, whereas Move 22 (*Evaluating the study*) was conventional in the Saudi counterpart. The remaining five moves identified in both datasets were infrequent, hence optional. A detailed explanation of each move/step is described as follows.

*Move 17—background information.* The function of Move 17 is to provide an introductory information or background about a study being conducted, such as the reason for the study. This move was optional, as it occurred in seven RAs (46.6%) and nine RAs (60%) in the Saudi and the international dataset, respectively. To introduce this move, several lexical devices were employed, as *the aim of the study,* and reporting verbs, as in *investigate, explore, examine, and present*. This move further utilized present-simple tenses and past-simple tenses. Below are examples derived from both datasets.

Examples:

1. *This descriptive observational study **explored** the pedagogical practices devised to direct students' attention to form in four ESL and four FSL classes.* (I8)

2. ***In this section**, we first summarize the main findings and then discuss the findings, rounding off with a conclusion.* (I1)

3. ***The main aim of this study** was to **investigate** the effect of drama as a teaching procedure on the students' oral proficiency.* (S11)

*Move 18—reporting results.* The main purpose of this move is to report the results of a study. While this move was considered optional in the Discussion sections published

locally, as it occurred in nine sections (60%), this move was conventional in the international counterpart with 14 occurrences (93%). Such reporting verbs as *show, reveal, present* and *respond* reported in past-simple tenses, present-simple tenses, and passive voice.

1. *The results also **showed that** lexical development is not always linear in the sense that with every new exposure the knowledge of the word becomes progressively more complete and precise.* (I3)

2. *Responses of participants **reveal that** the GPA of 42.5% of the students is below the average.* (S13)

*Move 19—summarizing results.* Move 19 allows authors to summarize the results of a study. The authors tended to provide an overall summary of their results. This move appeared in eight Discussion sections (53.3%) in the Saudi and the international datasets, hence, this move was optional in both datasets. To identify this move, a number of connecting words that indicated summarization were employed, such as *overall.* This move also used present-simple tenses and past-simple tenses.

Examples:

1. ***Overall**, the data point to sentence-level indicators of accuracy as the primary assessment criterion.* (I6)

2. ***The overall results** indicate that students who were assigned the internet-based reading test showed a better capacity to answer the questions correctly in comparison to those who were asked to take the same test in a traditional print-based format.* (S5)

*Move 20—commenting on results.* The aim of this move is to comment and provide an in-depth explanation for results. To do that, the move includes four steps: Interpreting results, Comparing results with literature, Accounting for results, and Evaluating results. As shown in Table 26, Move 20 was conventional in both corpora, as it occurred in all Discussion sections (100%). In addition, Step 2 (*Comparing results with literature*) and Step 3 (*Accounting for results*) were the most frequently utilized in both datasets. The following sections describe the appearance of each step of Move 20.

*Move 20: Step.1. interpreting results.* The objective of this step is to interpret and make general claims arising from the results of a study being conducted. This step was conventional in both corpora since it occurred in 11 Discussion sections (73.3%) in the Saudi corpus and in 14 Discussion sections (93%) in the international counterpart. A number of lexical devices were employed to introduce the step, such as interpreting verbs (e.g., *interpret, indicate, reflect, can be explained, appear*), and modal verbs (*may, would, could*). Moreover, present-simple tenses, past-simple tenses, as well as passive voice were used in the step.

Examples:

1. *This difference **can be explained by** the fact that we coded our FFI during the whole duration of each class and not only during the time dedicated exclusively to language instruction, as was the case in their study.* (I8)

2. *Such a comment **may appear** daunting. Indeed, what teacher needs yet another task to further complicate the grading process?* (I4)

3. *This **means** that the group that went through the traditional procedures of teaching, gained little progress in their oral proficiency compared to the experimental group.* (S11)

*Move 20: Step 2. comparing results with literature.* The goal of this step is to allow authors to compare results with those reported in the literature, and also to quote previous work to support the findings. The step was conventional, as it prevailed in all Discussion sections (100%) in both sets of data. Various lexical clues were employed to introduce Step 2, such as *in line with, support, corroborate, echoes, previous research/work/studies*. The majority of the Discussion sections used present-simple tense.

Examples:

1. *The results of our study largely **support** the findings of the psycholinguistic studies reviewed at the beginning of this article with respect to the effect of age.* (I1)

2. *The results **coincide with** those of a study conducted by Huang, Chen, and Lin (2009), who found that EFL learners tend to use support reading strategies more than other online reading strategies when reading online English texts. On the other hand, the outcomes **diverge from** those of previous studies, particularly those of Anderson (2003), MohdRamli et al. (2011), and Zaki, Hassan, and Razali (2008).* (S9)

*Move 20: Step 3. accounting for results.* This step allows writers to suggest reasons for surprising results, or ones different from the literature, and also to provide an example to support an explanation. This step was conventional, as it appeared in 13 Discussion sections (86.6%) in both the Saudi and the international datasets. Such

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bundles as *possible justification, reason could be, could also be attributed to* were utilized to account for results, mostly expressed in present-simple tense in the passive form.

Examples:

1. *These differences across groups **could also be attributed to** proficiency levels.* (I12)

2. ***One reason why** EFL female learners may have employed global online reading strategies more frequently than their male counterparts is the fact that females tend to be goal-oriented by nature, are more strategic and careful EFL readers, and may be more aware of their reading process and thus self-monitor their reading strategies.* (S9)

*Move 20: Step 4. evaluating results*. By using this step, writers can provide a claim and evaluate their results by stating the strengths and weaknesses, as well as the generalizability of particular results. The appearance of this step was higher in the Saudi dataset (five occurrences equating to 33.3%) than the international dataset (three occurrences equating to 20%), therefore, this step was optional. Since this step occurred less frequently, the lexical clues were limited to words that indicate opinions, as in *think* and *approximation* used in present-simple tenses or present-perfect tenses.

Examples:

1. *Accordingly, the findings in the present study are simply **approximations** based on the best evidence at hand, the text itself.* (I1)

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2. ***I think that*** *these training courses* ***have changed*** *the atmosphere of the class to become more suitable for students to induce the grammatical rules from relevant activities and exercises.* (S10)

3. *This result* ***brings up the issue*** *that there are some constraints against implementing collaborative learning techniques as tools to compensate for background differences brought by college students in Saudi Arabia.* (S4)

*Move 21—summarizing the study.* The purpose of Move 21 is to summarize study results as a whole. The occurrence of this move in the Discussion section was three times (20%) in the Saudi corpus and four times (26.6%) in its counterpart, hence, the move was optional. This move was quite similar to Move 19, especially when it came to employing bundles and phrases. The only difference noticed between both moves (M19 and M21) was that M19 summarized results for each section or question, whereas M21 provided a summary of the whole study. *To that end*, *as this study shows* and *the present study has shown* were examples of lexical clues.

Examples:

1. ***As this study shows****, textual, or unintentional plagiarism constituted a significant portion of the matching text, as did small, coincidental matches and near copies. In the case of the PGD class, almost all of the matching text was in fact non-intentional plagiarism.* (I4)

2. ***The present study has shown*** *that when language learners are given some time to prepare before performing an information-gap task, their fluency is significantly enhanced.* (S8)

*Move 22—evaluating the study.* By utilizing Move 22, writers can evaluate their studies as a whole regarding three steps: indicating limitations, indicating significance/ advantage, and evaluating methodology. This move was optional in both corpora since it appeared in 10 Discussion sections (66.6%) and in nine Discussion sections (60%) in the Saudi and the international sets of data, respectively. The three steps associated with this move were also optional.

*Move 22: Step 1. indicating limitations.* The purpose of this step is to explain the limitations of a study. The frequency of appearance of this step (i.e., Saudi/one occurrence/6%; international/four occurrences/26.6%) revealed that the step was optional. In addition to such keywords as *limitations*, authors in both sets of data explained the difficulties encountered while conducting the studies. Both present-simple tenses and past-simple tenses were used in this move.

Examples:

1. *Also, **due to time constraints**, this study could not test both in and out of context to ensure that the testing condition did not influence study results. Without testing in and out of context, it is unknown if the testing condition favored some tasks and worked against the others.* (I10)

2. *As with all research **there are limitations** to this study including the fact that one of the features investigated was novel to the learners and the other was not.* (I13)

3. *Despite the interesting findings and beneficial implications presented in this study, there are **potential limitations** that should be considered.* (S9)

*Move 22: Step 2. indicating significance/ advantage.* This step allows authors to highlight the merits and advantages of a study. The step occurred equally in six Discussion sections (40%) in both corpora; so, it was optional. Several clues relating to the significance of the research, such as *value, contribute, help, important, unique, benefits* were employed in present-simple tense.

Examples:

1. *The added **value of our study** to the empirical literature reviewed at the beginning of this article, resides, we would like to argue, in the fact that we tested participants on a variety of lexical subskills (knowledge, speed of processing, and span of processing) as well as on their ability to produce meaningful speech, representing descriptive and argumentative discourse in informal and formal communicative situations.* (I1)

2. *The use of wikis for developing reading and writing skills in the context of an advanced writing course **testified to the benefits of** wikis as evidenced by the findings borne out from this research.* (S13)

*Move 22: Step 3. evaluating methodology.* The purpose of this step is to evaluate a methodology employed in a study, in terms of its strengths and weaknesses. As shown in Table 26, this step was optional, as it occurred in six Discussion sections (40%) and three Discussion sections (20%) in the Saudi and the international datasets, respectively. The lexical signs used to introduce this step were related to strengths and weaknesses of the study, such as *issues, problematic, not enough, difficult, impossible, effect on*. Present-simple tenses, past-simple tenses, and passive voice were used in this step.

Examples:

1. *Perhaps the most notable qualitative **issue arising from** this study is the complexity of assigning a numerical value to a chunk of text that has its own intrinsic properties steeped in the cognitive processes of its author.* (I4)

2. *It seems that reading a number of lengthy supplementary readers **is not enough alone** as a strategy for developing students' reading proficiency.* (S6)

*Move 23—deductions from the research.*    The aim of Move 23 is to infer benefits from the results of a study being conducted in light of three steps: making suggestions, recommending further research, drawing pedagogical implications. Since this move occurred in nine Discussion sections (60%) and 10 Discussion sections (66.6%) in the Saudi and the international sets of data, respectively, it was considered optional. The occurrences of the three steps were quite similar in both corpora.

*Move 23: Step 1. making suggestions*. The purpose of this step is to provide suggestions and recommendations for developing a study. The frequency of occurrence of this step in both datasets was close to each other (Saudi: seven times or 46.6%; international: nine times or 60%) so the step was optional. Examples of lexical bundles employed in this step were *may be worth repeating, would likely help clarify, need to be conducted*. The present-simple tense was regularly used in the step.

Examples:

1. *Thirdly, we **suggest** that special **attention is needed** for certain groups of abstract nouns.* (I2)

2. *As reviewed above, research on computer training **suggests** that despite of the time and effort required for teachers to integrate technological innovation*

*into their teaching practices, outcomes **justify the effort** and new initiatives*

*appear to be sustainable over the long term.* (S7)

*Move 23: Step 2. recommending further research.* This step allows authors to

provide recommendations to conduct further research studies in unexplored areas or

topics. This step occurred more in seven Discussion sections (46.6%) in the international

corpus than in the three Discussion sections (20%) of the Saudi counterpart. The lexical

devices utilized to introduce further research were, for example, m*ore/further research is*

*needed, necessary to explore*, and mostly occurred by using present-simple tense.

Examples:

1. *In **future research** it will be important to select two structures that are both*

   *novel 10 but differ in terms of difficulty.* (I13)

2. *One **suggested direction for future research** is to examine the types of online*

   *reading strategies used for various academic and non-academic online texts.*

   (S9)

*Move 23: Step 3. drawing pedagogical implications.* The last step is used to

provide a list of pedagogical implications drawn from the study. This step appeared

equally in four Discussion sections (26.6%) in the Saudi and in five Discussion sections

(33.3%) in the international sets of data, therefore, it was designated as optional.

Examples of lexical signals and phrases, such as *important pedagogical implications/*

*attentions, valuable insights* and modal verbs, as in *should, could*, *may*, mostly occurred

by using present-simple tense.

Examples:

1. *The findings have **important pedagogical implications** for teaching articles to L2 learners whose L1s do not have count-mass distinctions.* (I2)

2. *Based upon what has been previously mentioned, it can be concluded that the effect of using drama may lead to **fruitful conclusions and pedagogical implications** for EFL instructors and students.* (S11)

***Move sequences and cyclicity of the Discussion section from the two corpora.***

The analysis of move structure of the Discussion section is described below in terms of move sequences, move cyclicity, and move patterns. Table 27 provides the results of the analysis of opening, closing, and recurring moves. Concerning the opening move, both sets of data displayed some similarities and few differences. As for the similarities, the Discussion section was opened mostly by Move 17 (i.e., *Background information*) with more occurrences in nine international sections (60%) and seven sections (46.6%) in the Saudi counterpart. The differences, on the other hand, occurred in Move 20 (i.e., *Commenting on results*), in which three Discussion sections published internationally were opened by M20. The Discussion sections published locally did not open by M20. As for the closing move, the Discussion section published in the international corpus tended to close the section (8 occurrences– 53.3%) by Move 23 (i.e., *Deductions from the research*), followed by 6 occurrences of Move 20 (46.6%) (*Commenting on results*). In the Saudi corpus, however, the majority of the Discussion sections were ended by M20 followed by M23 and M22 (*Evaluating the study*), as shown in Table 27.

Lastly, the frequency of cyclical moves found in both sets of data indicated that the international corpus exhibited more cyclical moves than the Saudi counterpart. The most cyclical move in the Discussion section in both corpora was M20 (*Commenting on*

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*results*), with frequent appearance 76 times and 52 times in the international and the Saudi corpora, respectively. A Chi-Square Goodness of Fit Test was employed to investigate whether this difference was statistically significant in terms of employing M20, and a slight statistically significant difference was revealed ($X^2$ [1] = 0.0419, $p <$ .05). In the second most frequent cyclical move (i.e. M18- *Reporting results*), M18 appeared more cyclical in the international Discussion section (53 occurrences) compared to the (33 occurrences) in Saudi Discussion section. Again, there was a slight statistically significant difference ($X^2$ [1] = 0.0404, $p <$ .05) in Chi-Square Goodness of Fit Test. The frequent occurrences of the rest of the moves were quite similar in both sets of data.

Table 27: Move sequences and recurring of the Discussion section from the two corpora

| | Discussion | Opening Move | Closing Move | Recurring Move |
|---|---|---|---|---|
| **Saudi Corpus N=15 (%)** | **M17** *Background information* | 7 (46.6%) | 0 | 9 |
| | **M18** *Reporting results* | 2 (13.3%) | 1 (6.6%) | 33 |
| | **M19** *Summarizing results* | 5 (33.3%) | 0 | 9 |
| | **M20** *Commenting on results* | 0 | 7 (46.6%) | 52 |
| | **M21** *Summarizing the study* | 1 (6.6%) | 0 | 2 |
| | **M22** *Evaluating the study* | 0 | 3 (20%) | 13 |
| | **M23** *Deductions from the research* | 0 | 4 (26.6%) | 13 |
| **International Corpus N=15 (%)** | **M17** | 9 (60%) | 0 | 13 |
| | **M18** | 1 (6.6%) | 0 | 53 |
| | **M19** | 1 (6.6%) | 0 | 7 |
| | **M20** | 3 (20%) | 6 (46.6%) | 76 |
| | **M21** | 1 (6.6%) | 0 | 4 |

| | | | |
|---|---|---|---|
| **M22** | 0 | 1 (6.63%) | 18 |
| **M23** | 0 | 8 (53.3%) | 26 |

***Move structure of the Discussion section from the two corpora.*** As stated earlier, the only pattern that occurs in at least two Discussion sections was included in the study. In the case of the Discussion section, the Saudi and the international corpora exhibited high diversity in the Discussion section. That is, the analysis produced 30 different move patterns, in which the criteria mentioned earlier were not applicable in the Discussion section. Instead, the analysis of move pattern revealed highly recurring sub-patterns. That is, the patterns M18-M20 and M20-M18 were extremely cyclical, where they frequently occurred between almost every sub-pattern. For example, the pattern M17-M18-M20-M1-M18-M20-M23 found in the Discussion section published internationally included the sub-pattern M18-M20, where it appeared twice in the pattern. Another example was found in the Saudi corpus in the following pattern: M17-M20-M23-M18-M20-M18-M20-M18-M20-M23-M18-M20-M17-M18-M20-M18-M20-M23. Despite the fact that the pattern was rather long, the sub-pattern M18-M20 repeatedly occurred in-between other moves (i.e. M17- *Background information*, and M23- *Deductions from the research*).

Overall, based on the analysis of the Discussion section, two conventional moves were identifiable in the international dataset (i.e., M18, M20) as compared to only one conventional move (M20) in the Saudi counterpart. Both corpora opened the Discussion section mostly by Move 17. As for the closing move, the Saudi corpus favored closing the section by Move 20, while the international corpus closed the section with Move 23.

The most cyclical moves in both corpora were M20 and M18. Furthermore, both sets of data produced various move structures, which none of these structures was considered a frequent pattern.

**Conclusion section.** The last section in the analysis of a complete research article (i.e. Conclusion) was analyzed by Ruiying and Allison's (2003) model. The model involves three moves: *Summarizing the study, Evaluating the Study, Deductions from the research*. The results of move frequency, move patterns, and move cyclicity found in the Saudi and international corpora are reported in the following sections.

***The frequency of each move and step.*** As shown in Table 28, all moves/steps appeared in the Conclusion section in both sets of data. Move 26 (*Deductions from the research*) was considered conventional in both corpora, as it occurred in 100% of the Saudi corpus and 80% in the international corpus. Move 24 (*Summarizing the study*) was also conventional (73.3%) in the Saudi dataset and in the international counterpart (86.6%). The results of analyzing each move/step is explained as follows.

Table 28: The frequency of moves found in the Conclusion section in both corpora

| Moves/Steps | Saudi Corpus N=15 | International corpus N=15 |
| --- | --- | --- |
| **Move 24—*Summarizing the study*** | **11 (73.3%)** | **13 (86.6%)** |
| **Move 25—*Evaluating the Study*** | **11 (73.3%)** | **10 (66.6%)** |
| Step 1: Indicating significance/ advantage | 7 (46.6%) | 7 (46.6%) |
| Step 2: Indicating limitations | 3 (20%) | 6 (40%) |
| Step 3: Evaluating methodology | 4 (26.6%) | 1 (6%) |
| **Move 26—*Deductions from the research*** | **15 (100%)** | **12 (80%)** |
| Step 1: Recommending further research | 14 (93%) | 9 (60%) |
| Step 2: Drawing pedagogical implications | 14 (93%) | 11 (73.3%) |

*Move 24—summarizing the study.* The main purpose of this move is to summarize a study in terms of aims and results. Table 28 shows that this move appeared more in 13

Conclusion sections (86.6%) published internationally than in the 11 Conclusion sections of the Saudi counterpart (73.3%). Therefore, this move was conventional in both sets of data. To summarize a study, authors employed such bundles and phrases as *aim to, examine, overall, the purpose of the study*, and used the past-simple tense in this move.

Examples:

1. *The **study described in detail** several aspects of developing word knowledge, characterised by missing or erroneous information, pointing towards the gap between the L1 and L2-medium students.* (I3)

2. ***The core objective of the present research** is to investigate the impact of the RTAM on Saudi EFL Preparatory Year students' reading comprehension. **The study concluded** that this model is an effective instructional model that enhances the students' literal and inferential reading comprehension achievements, particularly at the inferential level of reading comprehension among the elaborative processing students.* (S2)

*Move 25—evaluating the study.* The function of this move is to evaluate the study being conducted by implementing three steps: *indicating significance/ advantage, indicating limitations, evaluating methodology*. The frequency of appearance of this move was close to each other in both corpora (Saudi: 73.3%, international: 66.6%). Therefore, the move was conventional in the Saudi dataset and optional in the international. The analysis of the three steps associated with this move is discussed below.

*Move 25: Step 1. indicating significance/ advantage.* This step provides the opportunity for authors to indicate the importance and usefulness of their studies. This

step was optional in both datasets, as it occurred in seven Conclusion sections (46.6%) in both the Saudi and the international corpora. Authors used various signal devices to introduce this step, such as *contribute*, *insights*, and *support*, where the present-simple tense was used the most in this step.

Examples:

1. *These findings **contribute to the growing body of research** on the acquisition of academic literacy by EALs in centre and periphery contexts; as upheld by Flowerdew (2000) and Belcher (2007), such studies give applied linguists and second language writing instructors further insight into the diversity of multilingual scholars' experiences in acquiring and sustaining academic literacy practices.* (I14)

2. *The findings here **bring to our attention the significance** that new forms of technological developments can play in language teaching.* (S5)

*Move 25: Step 2. Indicating limitations.* This step allows writers to explain a number of limitations found in their studies. The step was also optional in both sets of data, as it occurred twice as much in the international corpus (40%) compared to in the Saudi counterpart (20%). To introduce limitations of a study, such lexical devices as *limitations, only including/excluding*, *however* and *although*, all occurred in present-simple tense.

Examples:

1. *Secondly, our study **did not include** the use of the definite article. There is evidence that definite article use can be influenced by countability (Ogawa 2008; White 2009).* (I2)

2. *Despite this study's numerous findings, several **limitations** should be acknowledged*. (S12)

*Move 25: Step 3. evaluating methodology.* This step allows authors to present strengths and weaknesses of the methodology employed in their studies. Since the step occurred in four Conclusion sections (26.6%) in the Saudi corpus and only once in the international corpora (6%), it was considered optional. The lexical devices used here were words and phrases relating to evaluating a methodology in a past-simple tense.

Examples:

1. *This study of Turnitin results has brought to the fore **the need for transparency**, both in defining plagiarism, and in providing students the autonomy to use Turnitin to check their papers for matching text before submission (Ledwith & Risquez, 2008).* (I4)

2. *The researcher believes that the steps implemented while teaching writing according to the whole language approach **made it easier for** students to write and improve both of their writing quality and quantity.* (S1)

*Move 26—deductions from the research.* This move allows authors to offer a number of inferences from their studies. The authors can provide recommendations for further research and drawing pedagogical implications. The occurrence of this move in the Conclusion section published locally was 100%, compared to the international counterpart (80%). This move incorporated two steps that are discussed below.

*Move 26: Step 1. Recommending further research.* The purpose of this step is to recommend further research, as suggested by the authors. While this step was conventional in the Saudi dataset (93%), it was optional in the international dataset

(60%). The primary lexical clues and modal verbs used in this step were *future studies/work/research, further investigation, could, would*.

Examples:

1. ***Future studies could*** *use the coding framework established in this study and further explore the dynamic nature of peer interaction in online collaborative writing using other collaboration tools (e.g., Google docs, PBworks, and MixedInk).* (I7)

2. *There is **a need for further investigation** of the conformity of collaborative learning techniques to the prevailing cultural norms and individual learning styles of Saudi EFL learners.* (S4)

*Move 26: Step 2: drawing pedagogical implication*. The objective of this step is to present a number of pedagogical implications. The step was conventional in both sets of data, as it appeared in 14 (93%) and 11 (73.3%) Conclusion sections in the Saudi and the international corpora, respectively. Several lexical devices were employed in this step, such as *suggest, recommend, pedagogical implications, hope, useful guidance*, and modal verbs, as in *can, could, would*. The present-simple tense was mostly used in this step.

Examples:

(1) ***Pedagogically****, the wiki was a **very useful** collaboration tool for small group writing, but our study clearly shows that the collaborative nature of the technology does not automatically lead to participants taking a collaborative approach.* (I7)

(2) *Several **important implications** can be drawn from the present study.* (S12)

***Move sequences and cyclicity of the Conclusion section from the two corpora.***

The Conclusion section analysis regarding move structure is described below in terms of move sequences, move cyclicity, and move patterns. Table 29 provides results for the analysis of opening, closing, and recurring (i.e., cyclical) moves. Concerning the opening move, the Saudi and the international sets of data demonstrated similarities in opening the Conclusion section; that is, nine Conclusion sections (60%) in the Saudi corpus were opened by Move 24 (*Summarizing the study*) compared with 10 Conclusion sections (66.6%) in the international corpus. However, the second most frequent opening move differed in both corpora, with the Saudi corpus utilizing Move 26 *Deductions from the research* (33.3%) and international corpus utilizing Move 25 *Evaluating the Study* (26.6%). As for the closing move, the majority of the Conclusion sections were closed by Move 26 with 93.3% of occurrence in the Saudi dataset and 73.3% in the international. Finally, the three moves in the Conclusion section appeared to share a similar number of occurrences. As shown in Table 29, the most cyclical move was Move 26 (*Deductions from the research*), which occurred slightly more in the Saudi dataset (23 times) than in the international (18 times).

Table 29: Move sequences and recurring of the Conclusion section from the two corpora

| | Conclusion | Opening Move | Closing Move | Recurring Move |
|---|---|---|---|---|
| **Saudi Corpus N=15 (%)** | **M24** *Summarizing the study* | 9 (60%) | - | 13 |
| | **M25** *Evaluating the Study* | 1 (6.6%) | 1 (6.6%) | 13 |
| | **M26** *Deductions from the research* | 5 (33.3%) | 14 (93.3%) | 23 |
| **International Corpus N=15 (%)** | **M24** | 10 (66.6%) | 2 (13.3%) | 13 |
| | **M25** | 4 (26.6%) | 2 (13.3%) | 15 |

| | | | |
|---|---|---|---|
| **M26** | 1 (6.6%) | 11 (73.3%) | 18 |

*Move structure of Conclusion section from the two corpora.* Table 30 presents the results of the analysis of move patterns found in both datasets. As seen in Table 30, the Conclusion section published locally in Saudi Arabia demonstrated almost twice as many move patterns as the international corpus. In addition, both corpora shared two different move patterns. The most frequently utilized move pattern included M24-M25-M26, which appeared in three Conclusion sections (20%) in each corpus. Following that, the pattern M24-M26 was also shared by both corpora but with a difference in occurrence; the pattern appeared in two Conclusion sections (13.3%) and three Conclusion sections (20%) in the Saudi and the international datasets, respectively. Other patterns that presented twice in only the Saudi corpus were M26-M25-M26 and M26. Lastly, the most highly cyclical sub-pattern was M25-M26, which occured in the majority of the move structures found in both corpora.

Table 30: Move structures of the Conclusion section from the two corpora

| Conclusion | Saudi Corpus N=15 (%) | International Corpus N=15 (%) |
|---|---|---|
| **M24-M25-M26** | 3 (20%) | 3 (20%) |
| **M24-M26** | 2 (13.3%) | 3 (20%) |
| **M26-M25-M26** | 2 (13.3%) | - |
| **M26** | 2 (13.3%) | - |

To sum up, the analysis of the Conclusion section revealed that Move 24 (*Summarizing the study*) and Move 26 (*Deductions from the research*) were conventional in both corpora. In addition, both sets of data opened the Conclusion section mostly with

M24. Furthermore, the Conclusion section was closed by M26 in the Saudi and the international corpora. Move 26 was the most cyclical move in both corpora as well. Lastly, four move structures were identified in the datasets, in which two move patterns were shared by both corpora, and the other two were found only in the Saudi dataset. The following section presents the analysis of the corpus-driven approach to identify lexical bundles associated with each move found in the two corpora.

**Lexical Bundles (LBs) Associated with Each Move Found in the Two Corpora**

This section answers the second research question of the study relating to lexical bundles: What lexical bundles are utilized in each move of English applied linguistics research articles published in Saudi journals, and how are they similar to or different from those in international journals? The current section introduces the results of the identification and analysis of lexical bundles associated with each move of the five RA sections (i.e., Introduction-Methods-Results-Discussion-Conclusion) found in the Saudi and the international corpora. The carefully chosen lexical bundles should appear in at least two different texts in each corpus. As mentioned in Chapter Three, Chen and Baker (2010) stated that overlapping lexical bundles could inflate the results of quantitative analysis. For example, the lexical bundles *it has been suggested* and *has been suggested that* were overlapping in the corpus, coming from the longer expression *it has been suggested that*. To solve this problem, each overlapping lexical bundle was combined into one longer unit so as to guard against inflated results (Chen & Baker, 2010). Therefore, the lexical bundles of 4-word length were presented in frequency order followed by their structural and functional classifications.

Overall, the procedures of four-gram LBs extraction and refinement produced a total of 145 types with 358 tokens (i.e., frequent) of lexical bundles from the international set of data and 205 types with and 597 tokens from the Saudi counterpart. The top five most frequent lexical bundles associated with each move are presented in Table 31 (see Appendix C for the complete list). It is worth noting that the analysis did not reveal any lexical bundles associated with Move 6 (*Research Aims/ Questions/ Hypotheses*), Move 9 (*Limitations*), Move 16 (*Deductions from the research*), Move 17 (*Background information*), Move 21 (*Summarizing the study*), and Move 25 (*Evaluating the Study*). The analysis also did not show lexical bundles in either of corpora in some moves. For example, as shown in Table 31, Move 4 (*Overview*) had only lexical bundles in the Saudi corpus.

Table 31: Top most frequent 4-word lexical bundles associated with each move in both corpora

| M1: *Establishing a territory* | | M2: *Establishing a niche* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| on the other hand | one of the most | little is known about | on the other hand |
| one of the most | as well as the | as a result of | the results of the |
| this line of research | at the same time | as well as the | the extent to which |
| as one of the | based on the assumption | in the case of | in the use of |
| it is well established that | is one of the | is known about the | significant differences between the |

| M3: *Presenting the Present Work* | | M4: *Overview* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| the following research questions | the following research questions | | for the purpose of |
| in this study we | the significance of the | | in the present study |
| of the present study | is the effect of | | the effectiveness of the |
| on the other hand | what is the effect | | this study utilized a |
| the extent to which | aims at exploring the | | |

| M5: *Location* | | M7: *Subjects/ Materials* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| the study was conducted in | | on the basis of | to a sample of |
| | | it was not possible | the purpose of the |
| | | for each of the | was developed by the |
| | | a focus on the | was taught by the |
| | | a high degree of | as shown in table |

| M8: *Procedure* | | M10: *Data Analysis* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| at the beginning of | students were asked to | as well as the | the number of errors |
| at the end of | the purpose of the | at the same time | |
| in the current study | the study was conducted | can be seen in | |
| purpose of the study | they were asked to | in order to determine | |
| the purpose of the | was conducted in the | in the case of | |

| M11: *Preparatory information* | | M12: *Reporting results* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |

| International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
|---|---|---|---|
| | at the beginning of | the rest of the | the results of the |
| | in order to ensure | in the same way | a statistically significant difference |
| | the beginning of the | significant differences were found | the mean scores of |
| | | are presented in table | as shown in table |
| | | as can be seen | are shown in table |

| M13: *Commenting on results* | | M14: *Summarizing results* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| on the other hand | the mean scores of | | it is clear from |
| did not result in | in favour of the | | the findings of the |
| in the case of | to the effect of | | the study that the |
| | be attributed to the | | |
| | it also supports the | | |

| M15: *Evaluating the study* | | M18: *Reporting results* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| | the main goal of | in the present study | a significant difference in |
| | | as can be seen | in terms of the |
| | | in the case of the | the results indicate that |
| | | in the sense that | a positive correlation between |
| | | the data show that | almost the same in |

| M19: *Summarizing results* | | M20: *Commenting on results* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| | the findings of the | on the other hand | the results of the |
| | | it is important to | on the other hand |
| | | is in line with | can be attributed to |
| | | in the present study | with the findings of |
| | | it should be noted | by the fact that |

| M22: *Evaluating the study* | | M23: *Deductions from the research* | |
|---|---|---|---|
| **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| in the present study | the results of the | the results of this | as well as the |
| on the other hand | | this study suggests that | |
| with respect to the | | to be the most | |

| M24: *Summarizing the study* | | M26: *Deductions from the research* | |
|---|---|---|---|
| **International Corpus** | Saudi Corpus | **International Corpus** | **Saudi Corpus** |
| | that there is a | future research could examine | on the results of |
| | the study showed that | previous research has shown | the results of the |
| | | to better understand the | in light of the |
| | | | the findings of the |
| | | | are recommended to do |

**Introduction section.** The Introduction section was analyzed by Swales' (2004) model, which encompassed three moves with a number of steps associated with each move: Move 1 (*Establishing a territory*), Move 2 (*Establishing a niche),* and Move 3 (*Presenting the Present Work*). The lexical bundles were extracted from these three moves. In total, 95 lexical bundles (289 tokens, i.e., frequent) were found in the Saudi corpus, and 43 lexical bundles (103 tokens) were found in the international one. To elaborate, the analysis of Move 1 revealed that there were six lexical bundles (LBs) in the Saudi set of data compared to five lexical bundles in the international counterpart. As for

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Move 2, there were 31 lexical bundles in the international corpus, while 64 LBs were found in the Saudi counterpart. The third move included 7 and 25 LBs in the international and the Saudi corpora, respectively.

It is worth mentioning that both the Saudi and the international corpora shared two lexical bundles, *on the other hand* and *one of the most*. Also, the international dataset showed overlapping bundles (i.e., *is well established that* and *it is well established*). These two bundles were combined together in one long bundle (*It is well established that*). Another overlapping bundle was found in the Saudi corpus (i.e., *based on the assumption* and *on the assumption that*); these two bundles were also derived from one bundle (i.e., *based on the assumption that*).

**Method section.** A total of 28 LBs (69 tokens) were found in the international corpus, whereas 18 LBs (42 tokens) were in the Saudi corpus. In Move 4 (*Overview*), there were four LBs only in the Saudi corpus. As for Move 5 (*Location*), the international corpus had one lexical bundle (i.e., *The study was conducted in*). Move 6 (*Research Aims/ Questions/ Hypotheses*) and Move 9 (*Limitations*) did not have any LBs in either corpora. Concerning Move 7 (*Subjects/Materials*), 11 LBs were identified in the international corpus compared to nine in the Saudi. In addition, Move 8 (*Procedure*) encompassed six and four LBs in the international and the Saudi datasets, respectively. Lastly, Move 10 (*Data Analysis*) included 10 LBs in the international corpus compared to one in the Saudi (i.e., *The number of errors*).

**Results section.** The Results sections included 23 LBs (57 tokens) found in the international set of data, compared to 38 LBs (134 tokens) in the Saudi counterpart. The analysis did not show LBs in Move 16 (*Deductions from the research*). In Move 11

(*Preparatory information*), only the Saudi corpus had two bundles (i.e., *at the beginning of the*, *in order to ensure*). As for Move 12 (*Reporting results*), there were 20 LBs in the international corpus, and the Saudi had 24 bundles. Three and ten LBs were identified in Move 13 (*Commenting on results*) in the international and the Saudi corpora, respectively. Move 14 (*Summarizing results*) and Move 15 (*Evaluating the study*) encompassed one bundle each in only the Saudi dataset (i.e., *the main goal of*, *it is clear from the findings of the study that*), respectively.

   **Discussion section.** The Discussion sections showed 48 LBs (123 tokens) in the international corpus, and there were 34 LBs (90 tokens) in the Saudi corpus. Move 17 (*Background information*) and Move 21 (*Summarizing the study*) did not have any LBs in both corpora. As for Move 18 (*Reporting results*), there were 10 and 6 LBs in the international and the Saudi datasets, respectively. Move 19 (*Summarizing results*) showed only one LB (i.e., *the finding of the*) in the Saudi corpus. Regarding Move 20 (*Commenting on results*), 31 LBs were found in the international corpus, compared to 25 LBs in the Saudi. Lastly, Move 22 (*Evaluating the study*) and Move 23 (*Deductions from the research*) included four and three LBs in each move, respectively, in the international dataset. Move 22 had only one move in the Saudi dataset (i.e., *The results of the)*.

   **Conclusion section.** In the Conclusion section, 3 LBs (6 tokens) were identified in the international corpus, while 20 LBs (42 tokens) were found in the Saudi corpus. Move 25 (*Evaluating the Study*) did not have any lexical bundles. In Move 24 (*Summarizing the study*), there were two lexical bundles (i.e., *that there is a*, *the study showed that*) found in only the Saudi corpus. As for Move 26 (*Deductions from the research*), the international set of data exhibited three LBs, and the Saudi dataset

included 18 LBs. In the next two sections, the structural and functional features of the lexical bundles found in both corpora are presented.

**Structural Characteristics of Lexical Bundles in Both Corpora.** Biber *et al.*'s (1999) taxonomy was utilized to analyzed the structural features of lexical bundles associated with each move in both corpora. The taxonomy involves 12 structural types below:

1. Noun phrase with *of*-phrase fragment

2. Noun phrase with other post-modifier fragment

3. Prepositional phrase with embedded *of*-phrase fragment

4. other prepositional phrase;

5. Be + noun/adjective phrase

6. Passive verb + prepositional phrase fragment;

7. Anticipatory *it* + verb/adjective phrase;

8. Verb phrase) + that-clause fragment;

9. (Verb/adjective) + *to*-clause fragment;

10. Adverbial clause fragment;

11. Pronoun/noun phrase + be (+…);

12. Lexical bundles that comprise noun phrase and prepositional phrase fragments.

The analysis of structural classification of lexical bundles found in the Saudi and the international sets of data are shown in Table 32 for the Introduction section, Table 33 for the Methods, Table 34 for the Results, Table 35 for the Discussion, and finally Table 36 for the Conclusion.

Table 32: Structural classification of lexical bundles in the **<u>Introduction</u>** section in both corpora

| Category | | Move 1<br>*Establishing a territory* | | Move 2<br>*Establishing a niche* | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| **NP-based** | Noun phrase + *of* | One of the most, (3)[1] | One of the most (3) | A limited number of (2), the effect of the (2), the form of a (2), the meaning of a (2), the nature of the (2), | The results of the (9), the results of a (4), the use of the (8), a wide range of (4), a number of researchers/studies (6), the effectiveness of the (3), the effect of the (5), a handful of studies (2), the beginning of the (2), the best knowledge of (2), the design of studies (2) |
| | Other Noun phrase | | | The extent to which (2), | The extent to which (7), the degree to which (3), a study in which (5) |
| **PP-based** | Prepositional phrase + *of* | As one of the (2), | | As a result of (3), in the case of (3), to the effect of (3), about the meaning of (2), and a lack of (2), in the context of (3), on the basis of (2), on the other hand (3), with the acquisition of (2) | In the use of (9), from a variety of (4), at the end of (3), in the case of (3), on the effect of (3), about the use of (2), as a function of (2), as the design of (2), in the field/process of (4), in their use of (2), to a variety of (2), on the basis of the (4), |
| | Other prepositional phrase | On the other hand (5), | On the other hand (2), at the same time (2) | in the present study (3), | On the other hand (9), from the current study (2), in addition to the (2), in relation to their (2), |
| **VP-Based** | Be + noun/adjective phrase | | Is one of the (2), | | Is due to the (2) |
| | Passive verb + prep. phrase fragment | | | Can be seen in (2), were based on (2) | Can be used to (3), have been conducted on (3), can be utilized in (2), has been carried out (2), were exposed to the (2) |
| | Anticipatory *it* + verb/adjective phrase | It is well established that (2), | | | It was found that (2), |
| | (Verb phrase) + *that*-clause fragment | | | Research has shown that (3), that the majority of (2), that the number of (2), that there is a (2), the results indicated that (4), the fact that the (3), | That there was no (5), the results/study showed that (8), that the use of (4), that the majority of (3), that there is a (3), the researcher found that (3), the results indicated that (5), the study revealed that, (2), the results show(ed) that (6), that most of the (2) |

| | | | | |
|---|---|---|---|---|
| (Verb/adjective) + *to*-clause fragment | | | Are likely to be (5), | Are likely to be (2), as a tool to (2), is devoted to the (2), they were asked to (2), when compared to the (2) |
| Adverbial clause fragment | | | | |
| Pronoun/noun phrase + be (+…) | | | | There is a need (2), |
| **Other expressions** | This line of research (3) | Based on the assumption (2), as well as the (2) | Little is known about (4), as well as the (3), as well as their (2), however very little is (2), there has been little (2), this line of research (2) | Significant difference(s) between the (8), no significant differences between (4), as well as the (5), the study consisted of (5), this study aimed at (3), differ widely from the (2), |

[1] The number between brackets is the frequent appearance of the bundle

Table 32 (cont.): Structural classification of lexical bundles in the **<u>Introduction</u>** section in both corpora

| Category | | **Move 3**<br>*Presenting the Present Work* | |
|---|---|---|---|
| | | **International Corpus** | **Saudi Corpus** |
| **NP-based** | Noun phrase + *of* | | The significant of the (4), the use of the (3), the effect of the (6), the effect of using (4), the effects of the (2), in the field of (3), a wide range of (2), the impact of the (2), the purpose/results of the (4) |
| | Other Noun phrase | The extent to which (3)[1] | The gap in the (2), |
| **PP-based** | Prepositional phrase + *of* | | in favor of the (2), in the context of (2), in the process of (2), on the effect of (2), over a period of time (2), |
| | Other prepositional phrase | On the other hand (3), to shed light on (2), | In relation to the (3), to shed light on the (3), |
| **VP-Based** | Be + noun/ adjective phrase | | |
| | Passive verb + prep. phrase fragment | | |
| | Anticipatory *it* + verb/adjective phrase | | It is hoped that (2), |
| | (Verb phrase) + *that*-clause fragment | | |
| | (Verb/adjective) + *to*-clause fragment | Intends to contribute to (2), | Aims at exploring the (3), were exposed to the (2) |
| | Adverbial clause fragment | | |
| | Pronoun/noun phrase + be (+…) | | |
| **Other expressions** | | The following research question(s) (3), the study addressed the (2) | addressed the following research questions (2), this study aims at (2), the present study investigated (2), answer the following questions (2) |

[1] The number between brackets is the frequent appearance of the bundle

Table 33: Structural classification of lexical bundles in the **Methods** section in both corpora

| Category | | Move 4 Overview | | Move 5 Location | | Move 7 Subjects/Materials | |
|---|---|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| NP-based | Noun phrase + *of* | | The effectiveness of the (2)[1] | | | On the basis of (5), a high degree of (2), a wide range of (2), the purpose of the (2) | The purpose of the (4), one of the most (2), |
| NP-based | Other Noun phrase | | | | | A focus on the (4), | |
| PP-based | Prepositional phrase + *of* | | For the purpose of (2) | | | For each of the (3), | |
| PP-based | Other prepositional phrase | | In the present study (2), | | | In addition to the (2), in order to explore (2) | On the other hand (2), In the present study (2), |
| VP-Based | Passive verb + prep. phrase fragment | | | | | Can be found in (2), | Was developed by the (3), was taught by the (3), |
| VP-Based | Anticipatory *it* + verb/adjective phrase | | | | | It was not possible (4), | |
| VP-Based | (Verb/adjective) + *to*-clause fragment | | | | | | To a sample of (3), to a number of (2) |
| VP-Based | Adverbial clause fragment | | | | | | As shown in table (2) |
| **Other expressions** | | this study utilized a (2) | | The study was conducted in (2) | | The study was conducted in (2) | |

[1] The number between brackets is the frequent appearance of the bundle

Table 33 (cont.): Structural classification of lexical bundles in the **Methods** section in both corpora

| Category | | Move 8<br>*Procedures* | | Move 10<br>*Data Analysis* | |
|---|---|---|---|---|---|
| | | **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| **NP-based** | Noun phrase + of | the purpose of the (2)[1] | The purpose of the (2) | The analysis of the (4), the meaning of the (4), the reliability of the (2) | The number of errors (2) |
| | Other Noun phrase | | | | |
| **PP-based** | Prepositional phrase + of | At the beginning of the (2), at the end of (2), | | In the case of (2), in the present study (3), | |
| | Other prepositional phrase | | | At the same time (2), in order to determine (2), with respect to the (2) | |
| **VP-Based** | Be + noun/adjective phrase | | | | |
| | Passive verb + prep. phrase fragment | Were included in the (2) | | Can be seen in (2), | |
| | **Other expressions** | In the current study (2), they were asked to (2) | they were asked to (2), students were asked to (3), the study was conducted in (2) | As well as the (2), | |

[1] The number between brackets is the frequent appearance of the bundle

Table 34: Structural classification of lexical bundles in the **Results** section in both corpora

| Category | | Move 11 Preparatory information | | Move 12 Reporting results | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| **NP-based** | Noun phrase + *of* | | | The rest of the (4), one of the main (2), the majority of the (2), the results of the (2), | The results of the (11), the mean score of (10), the majority of the (6), the results of this (3), the main idea of (2), the meaning of the (2) |
| | Other Noun phrase | | | The results for the (2), | The mean score for (2), |
| **PP-based** | Prepositional phrase + *of* | | At the beginning of the (2)[1] | In each of the (2), in terms of their (2), of the number of (2) | In favor of the (4), in favour of the (6), and in favor of (2), in each of the (2), in terms of the (2), of the sample of (2), |
| | Other prepositional phrase | | In order to ensure (2) | In the same way (3), in relation to (3), | On the other hand (4), in order to make (2), |
| **VP-Based** | Be + noun/adjective phrase | | | | |
| | Passive verb + prep. phrase fragment | | | Are presented in table (4), can be seen in (4), was found in the (3), are reported in table (2), was also reflected in (2), were observed in the (2) | Are shown in table (5), |
| | Anticipatory *it* + verb/adjective phrase | | | It is important to (2), | it shows that the (3), |
| | (Verb phrase) + *that*-clause fragment | | | | That there is a (5), that there was a (3), that the difference in (2) |
| | Adverbial clause fragment | | | | As shown in table (6), as seen in table (3), |
| | Pronoun/noun phrase + be (+…) | | | There was a significant (2), | |
| **Other expressions** | | | | A statistically significant difference between (3), the following excerpts illustrate (2), | A statistically significant difference at (10), A statistically significant difference between (4), |

[1] The number between brackets is the frequent appearance of the bundle

Table 34 (cont.): Structural classification of lexical bundles in the **Results** section in both corpora

| | Category | Move 13 Commenting on results | | Move 14 Summarizing results | | Move 15 Evaluating the study | |
|---|---|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| NP-based | Noun phrase + *of* | | The mean scores of (5)[1], the results of the (2) | | | | The main goal of (2) |
| PP-based | Prepositional phrase + *of* | In the case of (2) | In favor of the (3), to the effect of the (3) | | | | |
| PP-based | Other prepositional phrase | On the other hand (3) | In the control group (2), in the experimental group (2), | | | | |
| VP-Based | Be + noun/adjective phrase | | | | | | |
| VP-Based | Passive verb + prep. phrase fragment | | Be attributed to the (2) | | | | |
| VP-Based | Anticipatory *it* + verb/adjective phrase | | It also supports the (2) | | it is clear from the findings of the study that (2) | | |
| VP-Based | (Verb phrase) + *that*-clause fragment | | That there was no (2), supports the premise that (2) | | | | |
| | **Other expressions** | Did not result in (2) | | | | | |

[1] The number between brackets is the frequent appearance of the bundle

Table 35: Structural classification of lexical bundles in the **<u>Discussion</u>** section in both corpora

| Category | | Move 18 *Reporting results* | | Move 19 *Summarizing results* | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| **NP-based** | Noun phrase + *of* | the results of the (2)[1] | the beginning of the (2), the results of the (2) | | The finding of the study (3) |
| | Other Noun phrase | The case with the (2), | | | |
| **PP-based** | Prepositional phrase + *of* | In the case of (2), | In terms of the (3) | | |
| | Other prepositional phrase | With respect to vocabulary (2), In the present study (3), | | | |
| **VP-Based** | (Verb phrase) + *that*-clause fragment | In the sense that (2), the data show that (2), the results revealed/showed that (4) | The results indicate that (3) | | |
| | Adverbial clause fragment | as can be seen from the data (2), | | | |
| **Other expressions** | | | A positive correlation between (2), a significant difference in (3) | | |

[1] The number between brackets is the frequent appearance of the bundle

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Table 35 (cont.): Structural classification of lexical bundles in the **Discussion** section in both corpora

| | Category | Move 20 *Commenting on results* | | Move 22 *Evaluating the study* | | Move 23 *Deductions from the research* | |
|---|---|---|---|---|---|---|---|
| | | **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| **NP-based** | Noun phrase + *of* | The finding of the/this (6)[1], a higher number of (2), the meaning of the (2), the results of this (2), | The results of the (6), a wide range of (2), The results of this (2) | | The results of the (2) | The results of this (2) | |
| | Other Noun phrase | The ease with which (3), the degree to which (2), the extent to which (2) | | a starting point for (2) | | | |
| **PP-based** | Prepositional phrase + *of* | In terms of the (2), in the field of (2), of most of the (2) | With the findings of (5), on the part of (2), with the results of (2), in favor of the (3), | | | | |
| | Other prepositional phrase | On the other hand (7), with respect to the (3), at the same time (2), in line with the (2), In the present study (5), | On the other hand (6), by the fact that (3), at the same time (2) | On the other hand (2), with respect to (2), In the present study (2) | | | |
| **VP-Based** | Be + noun/adjective phrase | is in line with (5), are in line with (3) | Be due to the (3), is consistent with the (2), | | | | |
| | Passive verb + prep. phrase fragment | Could be used to (2), | Can be attributed to (5), could be attributed to (3), can be explained by (2) | | | | |
| | Anticipatory *it* + verb/adjective phrase | It is important to (6), it should be noted that (5), it is possible that (3), | It is important to (2), it was clear that (2) | | | | |
| | (Verb phrase) + *that*-clause fragment | possible explanation is that (2), that the nature of (2), the fact that the (2), to note that the (2) | From/to the fact that (4), study revealed that the (2) | | | This study suggests that (2) | |
| | (Verb/adjective) + *to*-clause fragment | Are likely to be (2), | Due to the fact that (2), Might be due to that (2), | | | To be the most (2) | |
| | Adverbial clause fragment | | As discussed in the (2), | | | | |
| | Pronoun/noun phrase + be (+…) | This is consistent with (4) | | | | | |

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| | | | | |
|---|---|---|---|---|
| **Other expressions** | as well as to (2), did not appear to (2), does not seem to (2), | a significant difference between the (2), significant improvement on the (2), | | As well as the (2) |

[1] The number between brackets is the frequent appearance of the bundle

Table 36: Structural classification of lexical bundles in the **Conclusion** section in both corpora

| Category | | Move 24 _Summarizing the study_ | | Move 26 _Deductions from the research_ | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| NP-based | Noun phrase + _of_ | | | | The results of this (2), the finding of the (3), the usefulness of the (2), |
| PP-based | Prepositional phrase + _of_ | | | | in light of the (3), in the area of (2), in their knowledge of (2), on the use of (2), |
| VP-Based | Be + noun/adjective phrase | | | | Is one of the (2), |
| | Passive verb + prep. phrase fragment | | | | Are recommended to do the (2), |
| | (Verb phrase) + _that_-clause fragment | | the study showed that (2)[1], That there is a (2) | previous research has shown that (2) | |
| | (Verb/adjective) + _to_-clause fragment | | | To better understand the (2) | to determine the most (2), to do the following (2), |
| **Other expressions** | | | | Future research could examine (2), | Carry out further research (2), conduct further studies concerning (2), research is needed to (2), researchers are recommended to (2), should be conducted to (2), should believe in the (2), should try to be (2) |

[1] The number between brackets is the frequent appearance of the bundle

**Functional Characteristics of Lexical Bundles in Both Corpora.** In the

functional analysis, Hyland's (2008c) taxonomy of discourse functions of lexical bundles

was applied in the present study. Bundles in this taxonomy comprise three broad types:

Research-oriented, Text-oriented, Participant-oriented, in which each type entails several

sub-types. (a) Research-oriented (ideational) helps writers to structure their activities and

experiences of the real world. Type 1 includes *Location – indicating time/place,*

*Procedure, Quantification, Description,* and *Topic – related to the field of research.* (b)

Text-oriented (textual) concerns with the organization of the text and its elements as a

message. Type 2 has four subtypes: *Transition signals, Resultative signals, Structuring*

*signals*, and *Framing signals.* (c) Participant-oriented (interpersonal) focuses on the

writer or reader of the text, which includes *Stance features* and *Engagement features.* The

analysis of functional classification of lexical bundles found in the Saudi and the

international sets of data are shown in Table 37 for the Introduction section, Table 38 for

the Methods, Table 39 for the Results, Table 40 for the Discussion, and finally Table 41

for the Conclusion.

Table 37: Functional classification of lexical bundles in the **Introduction** section in both corpora

| Category | Move 1 *Establishing a territory* | | Move 2 *Establishing a niche* | |
|---|---|---|---|---|
| | **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| **Research-oriented** | | | | |
| Location – indicating time/place | | at the same time (2)[1] | | the beginning of the (2), at the end of (3), |
| Procedure | | | the effect of the (2), the form of a (2), to the effect of (3), | the use of the (8), the effectiveness of the (3), the effect of the (5), In the use of (9), on the effect of (3), about the use of (2), as a function of (2), as the design of (2), in their use of (2), can be used to (3), can be utilized in (2), were exposed to the (2), that the use of (4), as a tool to (2), when compared to the (2), differ widely from the (2), |
| Quantification | One of the most, (3), As one of the (2), | One of the most (3), Is one of the (2), | A limited number of (2), and a lack of (2), that the majority of (2), that the number of (2), | a wide range of (4), a number of researchers/studies (6), a handful of studies (2), from a variety of (4), to a variety of (2), that the majority of (3), Significant difference(s) between the (8), no significant differences between (4), that most of the (2) |
| Description | | | the meaning of a (2), the nature of the (2), about the meaning of (2), | a study in which (5), that there was no (5), that there is a (3), the design of studies (2) |
| Topic – related to the field of research | | | | |
| **Text-oriented** | | | | |
| Transition signals | On the other hand (5), | On the other hand (2), as well as the (2) | on the other hand (3), as well as the (3), as well as their (2), | On the other hand (9), in addition to the (2), as well as the (5), |
| Resultative signals | | | As a result of (3), the results indicated that (4) | The results of the (9), the results of a (4), It was found that (2), the researcher found that (3), the results indicated that (5), the study revealed that, (2), the results show(ed) that (6), the results/study showed that (8), |

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| | | | |
|---|---|---|---|
| *Participant-oriented* | **Structuring signals** | | that there is a (2), in the present study (3), | from the current study (2), the study consisted of (5), |

| Category | Bundle col 1 | Bundle col 2 | Bundle col 3 |
|---|---|---|---|
| **Structuring signals** | | that there is a (2), in the present study (3), | from the current study (2), the study consisted of (5), |
| **Framing signals** | | The extent to which (2), in the case of (3), in the context of (3), on the basis of (2), with the acquisition of (2), were based on the (2), the fact that the (3), | on the basis of the (4), The extent to which (7), the degree to which (3), in the case of (3), in the field/process of (4), in relation to their (2), is devoted to the (2), There is a need (2), |
| **Stance features** | Based on the assumption (2), | Are likely to be (5), | the best knowledge of (2), is due to the (2), are likely to be (2), |
| **Engagement features** | It is well established that (2), This line of research (3) | Can be seen in (2), Research has shown that (3), Little is known about (4), however very little is (2), there has been little (2), this line of research (2) | have been conducted on (3), has been carried out (2), they were asked to (2), this study aimed at (3), |

[1] The number between brackets is the frequent appearance of the bundle

Table 37 (cont.): Functional classification of lexical bundles in the **Introduction** section in both corpora

| Category | | Move 3 *Presenting the Present Work* | |
|---|---|---|---|
| | | **International Corpus** | **Saudi Corpus** |
| *Research-oriented* | Location – indicating time/place | | over a period of time (2), answer the following questions (2) |
| | Procedure | Intends to contribute to (2)[1], | the use of the (3), the effect of the (6), the effect of using (4), the effects of the (2), the impact of the (2), the purpose/results of the (4), in the process of (2), in favor of the (2), on the effect of (2), aims at exploring the (3), were exposed to the (2), this study aims at (2) |
| | Quantification | | The significant of the (4), a wide range of (2), |
| | Description | | the present study investigated (2), |
| | Topic – related to the field of research | | |
| *Text-oriented* | Transition signals | On the other hand (3), | |
| | Resultative signals | | |
| | Structuring signals | The following research question(s) (3), | addressed the following research questions (2), |
| | Framing signals | The extent to which (3) | in the field of (3), The gap in the (2), in the context of (2), In relation to the (3), |
| *Participant-oriented* | Stance features | | It is hoped that (2), |
| | Engagement features | the study addressed the (2), to shed light on (2), | to shed light on the (3), |

[1] The number between brackets is the frequent appearance of the bundle

Table 38: Functional classification of lexical bundles in the **Methods** section in both corpora

| Category | | Move 4 Overview | | Move 5 Location | | Move 7 Subjects/Materials | |
|---|---|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| **Research-oriented** | Location: indicating time/place | | | The study was conducted in (2) | | The study was conducted in (2) | |
| | Procedure | | the effectiveness of the (2)[1], for the purpose of (2), this study utilized a (2) | | | the purpose of the (2), in order to explore (2), | The purpose of the (4), was developed by the (3), was taught by the (3), To a sample of (3), |
| | Quantification | | | | | a high degree of (2), a wide range of (2), For each of the (3), | one of the most (2), to a number of (2) |
| | Description | | | | | On the basis of (5), | |
| **Text-oriented** | Transition signals | | | | | In addition to the (2), | on the other hand (2), |
| | Resultative signals | | | | | can be found in (2), | |
| | Structuring signals | | In the present study (2), | | | | as shown in table (2), in the present study (2), |
| | Framing signals | | | | | A focus on the (4), | |
| **Participant-oriented** | Stance features | | | | | It was not possible (4), | |

[1] The number between brackets is the frequent appearance of the bundle

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Table 38 (cont.): Functional classification of lexical bundles in the **<u>Methods</u>** section in both corpora

| Category | | Move 8 Procedures | | Move 10 Data Analysis | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| *Research-oriented* | Location – indicating time/place | At the beginning of (2)[1], at the end of (2), | | At the same time (2), | |
| | Procedure | the purpose of the (2), they were asked to (2) | The purpose of the (2), The study was conducted in the (2), students were asked to (3), they were asked to (2) | the reliability of the (2), in order to determine (2), | |
| | Quantification | | | | The number of errors (2) |
| | Description | | | The analysis of the (4), the meaning of the (4), | |
| *Text-oriented* | Transition signals | Were included in the (2) | | As well as the (2), | |
| | Resultative signals | | | | |
| | Structuring signals | In the current study (2), | | in the present study (3), | |
| | Framing signals | | | In the case of (2), with respect to the (2) | |
| *Participant-oriented* | Engagement features | | | Can be seen in (2), | |

[1] The number between brackets is the frequent appearance of the bundle

Table 39: Functional classification of lexical bundles in the **Results** section in both corpora

| | Category | Move 11 – Preparatory information | | Move 12 – Reporting results | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| *Research-oriented* | Location – indicating time/place | | at the beginning of (2)[1] | | |
| | Procedure | | In order to ensure (2) | was also reflected in (2), were observed in the (2), A statistically significant difference between (3), | In favor of the (4), in favour of the (6), and in favor of (2), of the sample of (2), in order to make (2), that the difference in (2), a statistically significant difference at (10), A statistically significant difference between (4), |
| | Quantification | | | The rest of the (4), one of the main (2), the majority of the (2), in each of the (2), of the number of (2), there was a significant (2), | the majority of the (6), in each of the (2), |
| | Description | | | | the main idea of (2), the meaning of the (2), that there is a (5), that there was a (3), |
| *Text-oriented* | Transition signals | | | In the same way (3), | On the other hand (4), |
| | Resultative signals | | | The results for the (2), the results of the (2), was found in the (3), are reported in table (2), | The results of the (11), the mean score of (10), the results of this (3), the mean score for (2), it shows that the (3), |
| | Structuring signals | | | Are presented in table (4), the following excerpts illustrate (2), | are shown in table (5), as shown in table (6), as seen in table (3), |
| | Framing signals | | | in terms of their (2), in relation to (3), | in terms of the (2), |
| *Participant-oriented* | Stance features | | | It is important to (2), | |
| | Engagement features | | | can be seen in (4), | |

[1] The number between brackets is the frequent appearance of the bundle

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Table 39 (cont.): Functional classification of lexical bundles in the **Results** section in both corpora

| Category | | Move 13 _Commenting on results_ | | Move 14 _Summarizing results_ | | Move 15 _Evaluating the study_ | |
|---|---|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| _Research-oriented_ | Procedure | | to the effect of the (3)[1], In favor of the (3) | | | | |
| | Quantification | | | | | | |
| | Description | | that there was no (2) | | | | the main goal of (2) |
| _Text-oriented_ | Transition signals | on the other hand (3), | | | | | |
| | Resultative signals | did not result in (2) | the mean scores of (5), the results of the (2), it also supports the (2), supports the premise that (2) | | | | |
| | Structuring signals | | in the control group (2), in the experimental group (2), | | | | |
| | Framing signals | in the case of (2) | | | | | |
| _Participant-oriented_ | Stance features | | be attributed to the (2) | it is clear from the findings of the study that (2) | | | |

[1] The number between brackets is the frequent appearance of the bundle

Table 40: Functional classification of lexical bundles in the **Discussion** section in both corpora

| Category | | Move 18 *Reporting results* | | Move 19 *Summarizing results* | |
| --- | --- | --- | --- | --- | --- |
| | | **International Corpus** | **Saudi Corpus** | **International Corpus** | **Saudi Corpus** |
| *Research-oriented* | Location – indicating time/place | | the beginning of the (2)[1], | | |
| | Procedure | | a positive correlation between (2), | | |
| | Quantification | | a significant difference in (3), | | |
| *Text-oriented* | Resultative signals | the results of the (2), the data show that (2), the results revealed/showed that (4) | the results indicate that (3), the results of the (2) | | the finding of the study (3) |
| | Structuring signals | in the present study (3), | | | |
| | Framing signals | the case of the, the case with the (2), in the case of (2), with respect to vocabulary (2), in the sense that (2), | in terms of the (3) | | |
| *Participant-oriented* | Stance features | as can be seen from (2), | | | |

[1] The number between brackets is the frequent appearance of the bundle

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Table 40 (cont.): Functional classification of lexical bundles in the **<u>Discussion</u>** section in both corpora

| Category | Move 20 Commenting on results — International Corpus | Move 20 Commenting on results — Saudi Corpus | Move 22 Evaluating the study — International Corpus | Move 22 Evaluating the study — Saudi Corpus | Move 23 Deductions from the research — International Corpus | Move 23 Deductions from the research — Saudi Corpus |
|---|---|---|---|---|---|---|
| **Research-oriented** — Location – indicating time/place | at the same time (2)[1], | at the same time (2) | a starting point for (2) | | | |
| **Research-oriented** — Procedure | could be used to (2), that the nature of (2), to note that the (2), | can be explained by (2), in favor of the (3), significant improvement on the (2), | | | | |
| **Research-oriented** — Quantification | a higher number of (2), the degree to which (2), of most of the (2) | a wide range of (2), on the part of (2), a significant difference between the (2), | | | To be the most (2) | |
| **Research-oriented** — Description | the meaning of the (2), is in line with the (5), are in line with (3), the fact that the (2), this is consistent with (4), in line with the (2), | with the results of (2), by the fact that (3), from/to the fact that (4), with the findings of (5), is consistent with the (2), | | | | |
| **Text-oriented** — Transition signals | on the other hand (7), as well as to (2), | on the other hand (6), | on the other hand (2), | | | as well as the (2) |
| **Text-oriented** — Resultative signals | the finding of the/this (6), the results of this (2) | The results of the (6), The results of this (2), study revealed that the (2) | | the results of the (2), | the results of this (2), This study suggests that (2) | |
| **Text-oriented** — Structuring signals | in the present study (5), | as discussed in the (2), | in the present study (2) | | | |
| **Text-oriented** — Framing signals | the ease with which (3), the extent to which (2), in terms of the (2), in the field of (2), with respect to the (3), | | with respect to (2), | | | |
| **Participant-oriented** — Stance features | it is important to (6), it is possible that (3), possible explanation is that (2), are likely to be (2), did not appear to (2), does not seem to (2), | it is important to (2), it was clear that (2), be due to the (3), Can be attributed to (5), could be attributed to (3), Due to the fact that (2), Might be due to that (2), | | | | |
| **Participant-oriented** — Engagement features | it should be noted that (5), | | | | | |

[1] The number between brackets is the frequent appearance of the bundle

Table 41: Functional classification of lexical bundles in the <u>Conclusion</u> section in both corpora

| Category | | Move 24 Summarizing the study | | Move 26 Deductions from the research | |
|---|---|---|---|---|---|
| | | International Corpus | Saudi Corpus | International Corpus | Saudi Corpus |
| *Research-oriented* | Location – indicating time/place | | | | |
| | Procedure | | | to better understand the (2) | to determine the most (2), to do the following (2), the usefulness of the (2), on the use of (2), |
| | Quantification | | | | is one of the (2), |
| | Description | | that there is a (2)[1] | | |
| | Topic – related to the field of research | | | | |
| *Text-oriented* | Transition signals | | | | |
| | Resultative signals | | the study showed that (2) | | the results of this (2), the finding of the (3), |
| | Structuring signals | | | | |
| | Framing signals | | | | in the area of (2), |
| *Participant-oriented* | Stance features | | | | |
| | Engagement features | | | future research could examine (2), previous research has shown that (2) | are recommended to do (2), in light of the (3), carry out further research (2), conduct further studies concerning (2), research is needed to (2), should believe in the (2), should try to be (2), researchers are recommended to (2), should be conducted to (2), in their knowledge of (2) |

[1] The number between brackets is the frequent appearance of the bundle

**Summary of the Chapter**

   To summarize, the present chapter illustrated the results of the study based on the analysis of five sections of research articles, Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C). The chapter briefly highlighted the objectives of the study and the research questions. Following that, the chapter presented the results of the analysis of the first phase, the genre-based approach. Lastly, the chapter showed the results of the second phase, the corpus-driven approach. As for the results of phase one, i.e., move analysis, the analysis revealed that there are some similarities and differences between the Saudi and the international corpora in terms of move frequency, move structure, and move cyclicity. Concerning phase two, i.e., lexical bundles, the results indicate that the Saudi set of data exhibit a broad range of lexical bundles compared to the international counterpart, in terms of the frequency, as well as the structural and functional classifications of lexical bundles. The main findings relating to the research questions presented in the Results chapter is discussed in the next chapter, titled Discussion.

# CHAPTER 5

# DISCUSSION

This chapter provides an in-depth discussion related to the results and analysis of moves and lexical bundles reported in the previous chapter. The discussion is introduced in light of the research questions and in relation to previous research studies, with recommendations for graduate students and novice writers presented. The chapter begins by briefly stating the objectives of the study and an overview of the journals and authors in both corpora. The next part of the chapter discusses the similarities and differences between Saudi Arabian and international corpora regarding macrostructure organization, move frequency, move structures, and move cyclicity. The following part discusses the lexical bundles identified in both corpora concerning the occurrences of these bundles and their structural and functional classifications.

## Research Questions

As mentioned in Chapter 1, the purpose of the study was to compare the rhetorical structure and lexical bundles of English research articles (RAs) with complete Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C) sections published in local Saudi and international journals in the field of applied linguistics. The study was designed to answer the following research questions:

1. What are the rhetorical moves utilized in articles published in Saudi journals of English applied linguistics, and how do they compare to those published in international journals of applied linguistics?

2. What lexical bundles are utilized in each move of English applied linguistics research articles published in Saudi journals, and how are they similar to or different from those in international journals?

**Overview of the journals and authors in both corpora**

  This section briefly highlights the context and authors of journals in Saudi and international corpora. Appendix D provides a summary of the main requirements based on the journals' guidelines, as well as the authors of the selected articles and their institutional affiliations. Overall, all the journals chosen in the present study are published biannually by Saudi universities. As shown in Appendix D, these universities were ranked among the top 100 universities by QS University Rankings in the Arab Region in 2016. All journals in both corpora share similar publishing requirements for originality, innovation, academic rigor, research methodology, and logical orientation based on the vision and mission of each journal in both data sets. The journals require peer review of submissions and have editorial boards and reviewers from local and international universities.

  However, there are noticeable differences between local Saudi journals and their international counterparts. For example, the international journals require a certain length (usually 8,000–11,000 words) for publishing a research article. In Saudi journals, however, lengths of a manuscript are set by page numbers, typically 30 to 45 pages for each article published in the English language. Another difference is related to reference style. All international journals in the present study mandated adherence to the American Psychology Association (APA) style. Similarly, two Saudi journals (i.e., the *Journal of Humanities and Social Studies*, published by Al-Imam Muhammad Ibn Saud Islamic University, and the *Journal of King Saud University–Educational Sciences*) require the use of the APA style for submissions, whereas the *Journal of Arabic and Human Sciences*, published by Qassim University, requires that submissions adhere to the

Modern Language Association (MLA) style. The rest of the Saudi journals have their own requirements for organization styles. Finally, it is noteworthy that all the authors in the Saudi corpus are affiliated with universities in Saudi Arabia (see Appendix D). In the international corpus, the majority of the authors are affiliated with universities in the United States, Canada, and Europe.

As for the format of a manuscript, the journals from both corpora show some degree of variation in their explicit requirements for how a manuscript needs to be structured (i.e., IMRDC). In the Saudi corpus, three journals clearly defined the required macrostructure of any manuscript: the *Journal of King Saud University-Educational Sciences*, *The Scientific Journal of King Faisal University*, and the *Journal of the North*, published by Northern Border University. The rest of the journals in the Saudi corpus do not have clear instructions about how to format a manuscript regarding headings. However, all of the journals in the international data set explicitly stated the structure to which a manuscript should adhere, either by providing a structure or by stating that the organization of the article should conform to the APA style. The degree of variation between both corpora concerning the organization of the articles (i.e., macrostructure) is discussed in the following section.

**Comparison of Macrostructure of RAs in the International and the Saudi Corpora**

This section provides a comparison between the Saudi and the international data sets in relation to the macrostructure analysis of RAs. That is, the analysis in Chapter 4 (see Table 15 and Table 16) shows a degree of variation in both data sets in macrostructural organization in RAs (i.e., IMRDC), except in the Discussion section, in

which it seems that both corpora share a high degree of similarities in referring to the heading of this section.

In the Introduction section, the title seems to be different in both corpora. While the section is referred to as the Introduction in almost all RAs in the Saudi corpus, the international corpus shows a degree of variation. That is, five RAs do not have a title for the Introduction section. Only one RA has a different heading (background) in both corpora. This observation is also found in Ruiying and Allison's (2004) study, in which this is attributed to journal policy, such as the *TESOL Quarterly* and *Modern Language Journal* journals. After careful examination of the articles published in both journals, it can be concluded that the journals do not have a conventional heading (introduction) despite the fact that the guidelines of both journals do not explicitly refer to including or omitting a heading for the introductory section.

The analysis of the macrostructure reveals some consistency in the international corpus compared with the Saudi counterpart in terms of the title of the Methods section. In other words, all the Methods sections in the international corpus are titled with the conventional heading (i.e., *Methods*), except in one article, in which this is labeled as *the study* (i.e., I5). However, in the Saudi articles, only five research articles labeled this section as *Methods* (i.e., S4, S8, S11, S12). The rest of the research articles provide various titles for the section, such as *Methodology* (e.g., S1), *Design and framework of the program* (e.g., S6), *Research design* (e.g., S7) and *Methodology and procedures* (e.g., S10). The variations in the Methods section heading support the claim made by Swales and Feak (2004) that the Methods sections vary, and the heading *Methods* is not always used. This discrepancy in the Saudi data set can be attributed to the personal style

preference of the authors, as there are no clear guidelines on how to structure a research article available on the websites for most Saudi journals (see Appendix D for more information provided by journals about guidelines for authors). The variation in headings in the field of applied linguistics was observed by Ruiying and Allison (2004), who indicated that RA macrostructure is not always transparent or fixed. The RA can contain various headings that still indicate the function of that section, as with the Methods section in the present study.

As for the Results section, as with the Methods section, it has been observed that the international corpus uses the conventional heading of *Results*. The Saudi corpus, on the other hand, employs various alternatives to this conventional heading. For example, *Findings of the study*, *Data analysis and results*, *Results of the study*, *Study results*, and *Findings* are different headings for the Results section. Also, other authors (6 RAs) in the Saudi corpus use the conventional heading of *Results*. It seems that the Results sections in the Saudi corpus showed less variation than was found for the Methods sections discussed above. Again, this can be attributed to the fact that the RA macrostructure (i.e., headings) is not always transparent or fixed, and the RA macrostructure can have variations, depending on the policy of a journal or the authors' personal preferences.

Finally, both corpora show different names for the Conclusion section with much deviation from the conventional heading (i.e., Conclusion) found in the Saudi corpus. That is to say, 10 RAs in the international corpus name the section conventionally with *Conclusion*, while the rest of RAs label the section with *Concluding Remarks*; *Conclusion, Limitations, and Directions for Future Research*; *Study Limits and Implications for Future Research*; *Limitations and directions for future research*; and

*Conclusions and Recommendations*. This result in the international corpus can be attributed to the journals' guidelines, as these headings occur in particular journals (e.g., *Applied Linguistics*, *Language Learning*). On the other hand, the Saudi corpus includes seven RAs with the conventional heading (i.e., Conclusion), along with several alternate headings: *Conclusion and Suggestions* (e.g., S3), *Concluding Remarks* (e.g., S9), *Recommendations* (e.g., S2, S10), *Implications and limitations* (e.g., S12), *Implications for pedagogy* (e.g., S13), and *Conclusion and suggestions* (e.g., S14). In this case, as the guidelines of five Saudi journals do not have a fixed macrostructure for a research article, it may be the authors' preference to label the section based on the function it describes. According to Ruiying and Allison (2004), the Conclusion section can be labeled with various headings, such as the ones found in the present study. The main purpose of a conclusion is to "summarize the research by highlighting the findings, evaluating and pointing out possible lines of future research, [and] suggesting implications for teaching and learning" (Ruiying & Allison, 2003, p. 380).

**Move Analysis**

This section discusses the similarities and differences between both sets of data in terms of move frequency, followed by move patterns, and finally move cyclicity.

**Comparison of move frequency, move structure, and move cyclicity between the two corpora.** Overall, the Introduction sections in both corpora are consistent with Swales' (2004) model. That is, the three moves (i.e., Move 1— *Establishing a territory*, Move 2— *Establishing a niche*, and Move 3 — *Presenting the present work*) are conventional, as these moves occur in all the Introduction sections in both corpora. The

primary discrepancies found in both datasets take place at steps level, especially in Move 3 (M3).

   ***Introduction section.*** In general, the Introduction sections in both corpora are consistent with Swales' (2004) model. That is, the three moves (i.e., Move 1. *Establishing a territory*, Move 2. *Establishing a niche*, and Move 3. *Presenting the present work*) are conventional, as these moves occur in all the Introduction sections in both corpora. The primary discrepancies found in both data sets take place at the steps level, especially in Move 3 (M3).

   As for Move 1 (*Establishing a territory*), it occurs in all the Introduction sections in both corpora. These results conform with other studies that examined the Introduction section in two different contexts: in Iran (Jalilifar, 2010; Khany & Tazik, 2010) and in Thailand (Amnuai, 2012). The frequent occurrence of Move 1 is also observed in other disciplines: in wildlife behavior and biology (Samraj, 2002), as well as in civil engineering (Kanoksilapatham, 2015). This indicates the importance of establishing a territory for the topic of a study being conducted across disciplines. Furthermore, not only is the frequency of occurrences of Move 1 similar in both corpora, but also the types of lexical devices and tenses employed in this move are similar. The findings indicated that the Introduction sections of RAs in the field of applied linguistics should have Move 1.

   Move 2 (*Establishing a niche*) also appears in all Introduction sections in both sets of data. These results match those observed in (Pho, 2009; Swales, 2004), where these studies consider Move 2 as conventional in the field of applied linguistics. Comparatively, Move 2 is employed moderately in other studies (Ahmad, 1997; Hirano,

2009; Jogthong, 2001; Shi & Wannaruk, 2014 – in agricultural science). However, a few variations are found at the steps level in the present study, such as referring to previous literature. According to Swales (2004), Move 2 comprises the following steps: Step 1.A. Indicating a gap, Step 1.B. Adding to what is known, and Step 2. Presenting positive justifications.

Obviously, the most common strategy that authors use to establish a niche in both data sets is *indicating a gap* (i.e., Step 1.B. adding to what is known and has been done in the literature). The main difference, however, between the two sets of data is that in the Saudi corpus, some authors (i.e. in four Introductions) present a justification as to why the gap needs to be filled (i.e., Step 2). Thus, Step 2 (i.e., presenting positive justifications) is optional, as stated by Swales (2004) and Pho (2008a). It is worth noting that the appearance of Step 1.B. (adding to what is known) occurs in all RA Introductions except one article (i.e., S15). That is, the author, regardless of whether this is a coincidence or a mistake, adds the literature review in the Methods section. This can be attributed to the authors' styles or the flexibility of the journal's publication criteria (i.e., a failure to state clearly the organization of the Introduction section).

In referring to previous research, both integral and nonintegral reporting citations have been used (Swales, 1990; Thompson & Tribble, 2001). The integrals are the ones in which the name of the researcher or authors occurs in the sentence itself, for example, *Swales (1990) argued that. . . .* In the nonintegral, however, the name of the researcher normally appears in parentheses after the sentence or is referred to by another device or another convention. To refer to the literature, both integral and nonintegral reporting citations are employed in the Saudi and the international corpora, 540 and 480,

respectively. In the Saudi corpus, the integral type is employed slightly more (291 or 54%) compared with nonintegral (249 or 46%). On the other hand, nonintegral citation (296 or 62%) is dominant in the international corpus in comparison with integral citation (184 or 38%). These findings show that some writers in the Saudi corpus appear to be unaware of the academic usage of these two types, indicating lack of analysis and synthesis skills.

In addition, it is evident that although M2S1A (Indicating a gap) appears in all the Introduction sections in both corpora, the function of this step seems to be different between the local and the international data sets. That is to say, the authors in the Saudi journals avoid directly criticizing the work of others. Instead, the authors refer to the lack of research or to the limited or nonexistence of research in the country on the particular topic. This evidence is found in previous studies in different contexts: in Saudi Arabia (Alotaibi & Pickering, 2013; Al-Qahtani, 2006); in Malaysia (Ahmed, 1997); in Thailand (Amnuai, 2012; Jogthong, 2001); and in Brazil (Hirano, 2009). For instance, in a cross-disciplinary study, Alotaibi and Pickering (2013) examined 20 Arabic RA Introductions written by Arab writers educated in the Arab world in the fields of educational psychology and sociology. Also, in a cross-linguistic study, Alqahtani (2006) investigated the similarities and differences between Arabic and English RA Introductions. Both studies reported the absence of direct criticism or evaluations of previous studies. A possible reason can be related to cross-cultural variations concerning the creation and communication of knowledge. Some authors in the Saudi corpus considered criticism as inappropriate (or less acceptable) and probably believed that it invokes a negative attitude from other researchers.

The third Move, *Presenting the present work*, appeared in all RA Introductions, a finding that was congruent with findings in several studies reviewed in the literature (Amnuai, 2012; Ozturk, 2007; Pho, 2008a; Swales, 2004). Furthermore, the majority of the authors tended to announce the aims and objectives of their studies, followed by stating their research questions and/or hypotheses. Four RA Introductions (two from each corpus: I5, I14, S4, S5) did not have research questions or hypotheses. Instead, the authors stated their study's aims and purposes. This result contradicted Amnuai (2012), who confirmed that Step 2 is essential in the international corpus. Other similarities are related to steps five and seven; the authors in both sets of data seldom announced the outcomes of the study (i.e., Step 5) or outlined the structure of the study in the Introduction section (i.e., Step 7).

Additionally, the two sets of data contained variations in the third move, especially at the steps level. That is to say, Step 3 (i.e., definitional clarifications) is conventional in the Saudi corpus, but optional in the international corpus. The results indicated that Saudi authors preferred to clarify the terminology presented in their studies. The authors in the Saudi corpus allocated a subheading in the Introduction section for this step; the subheading usually was referred to as definition of terms.

Another discrepancy occurred in Step 4 (i.e., summarizing methods) being more prevalent in the Saudi corpus (7 RAs) than in the international corpus (3 RAs). The results indicated that the authors in the Saudi corpus favored presenting a summary of the methods employed in their studies. On the other hand, Jalilfar (2010) found that Step 4 appeared more in the international corpus than the local one (i.e., Iran), which is not in line with the findings of the current study. Swales (2004) clarified that this step is to be

used "especially in papers whose principal outcome can be deemed to reside in their methodological innovations, extended definitional discussions of key terms, detailing (and sometimes justifying) the research questions or hypotheses, and announcing the principal outcomes" (p. 231).

The fourth discrepancy is related to the promotional aspects employed by authors in both corpora (Hyland & Tse, 2005; Swales, 2004). The promotional element is found in Step 6, stating the value of the present research. Swales (2004) argued that this was the space for writers to expound upon the innovative or significant aspects of their work. The results revealed that this was more common in the Saudi corpus (86.6%) than in the international counterpart (26.6%). The results indicated that almost a majority of the authors in the Saudi corpus preferred to provide an evaluation of their research to impress and reassure the readers that their papers made claims and arguments that needed to be taken seriously and read in detail (Hyland & Tse, 2005; Swales, 2004). The way in which authors in the Saudi data set stated the value of their research probably stemmed from Arabic culture and writing style.

In the same vein, Fakhri (2004) in his analysis of Arabic RA Introductions found that many Arab authors were very assertive and did not avoid expressing overtly the importance and the significance of their contributions. Equally, Alharbi and Swales (2011) observed not only an increased usage of promotional feature in Arabic abstracts, but also the employment of lexical items that are markedly and obviously considered as promotional. They cautioned, however, that it is not easy to identify promotional language in academic prose in some cultures and languages. In other words, the statement "Arabic is an ancient language" could lead some people to consider the Arabic language

as either a descriptive or a persuasive language. Few instances of promotional lexical items are found in the Saudi corpus; below is an example to illustrate these phrases.

(1) *This study is a **pioneering study** in the sense that it is **the first of its kind** that investigates the construct of perceived peer social support in the field of teaching English composition to Saudi EFL college students in a collaborative learning setting.* (S4)

As for move structures, the most preferred move structures in the Saudi corpus were M1-M3-M2-M3 and M1-M2-M3-M2, as they occurred twice in the corpus. On the other hand, the international corpus had more varieties of move structure; the most preferred structure is (M1-M2-M3-M2-M3), which occurred in 4 research articles, followed by (M1-M3-M2-M3), (M1-M2-M3), and (M1-M2-M3-M2-M3-M2-M3), each of which occurred twice in RAs in the international corpus. The findings of the current study are inconsistent with previous studies (Amnuai, 2012; Ozturk, 2007), especially in terms of the move patterns. These studies reported that the pattern (M1-M2-M3) predominantly occurs in the international corpus. However, only three Introduction sections (S12, in Saudi, and I5-I10, in the International corpora) followed the prototypical pattern (M1-M2-M3) proposed in Swales (2004). Drawing on Swales' (1990) argument that "the genres are living, and the RA is continually evolving" (p. 110), applied linguistics genres will also undergo some changes because of the outer and wider contexts that surround the discipline (Li & Ge, 2009). Therefore, the variations in move patterns in this study can be attributed to the fact that the genre of the Introduction section has changed, meaning that the ordering pattern now seems not to have the purpose that the authors seek; sometimes, they prefer to create their own style. That is, some authors

establish a niche (i.e., Move 2), followed by occupying the niche (Move 3), which leads to an accelerated move cyclicity, as noticed by a closer look at the corpora.

Additionally, the analysis also shows that the majority of the Introduction sections were opened by Move 1 and closed by Move 3. It is noticed that 5 (33.3%) of the sections ended with Move 2, but only in Saudi corpus, which indicated a deviation from prototypical patterns proposed by Swales (2004). That is, as stated above and in Swales' (2004) model, occupying a niche comes after establishing a niche. Therefore, it can be concluded that ending an Introduction section with Move 2 (*Establishing a niche*) instead of Move 3 (*Presenting the present work*) is not recommended, which confuses some readers. Furthermore, closing the Introduction section with Move 2 (*Establishing a niche*) and its associated steps, e.g. indicating a gap and adding to what is known, tends to leave the reader questioning and demanding reasons for not closing the section with Move 3 (*Presenting the present work*). Another observation in the results is related to move cyclicity: Move 3 was the most cyclical, followed by Move 2. The Saudi corpus exhibited more frequent use of M3 and M2 than was the case in the international counterpart. This observation is inconsistent with findings of previous studies (Amnuai, 2012; Ozturk, 2007), which found that Move 1 is the most cyclical move. That explained the reason behind the high degree of move pattern variations found in Saudi corpus.

***Methods section.*** The overall results revealed that all seven moves were found in the Saudi data set, whereas the international data set employed five moves. The seven moves identified in Peacock's (2011) model are: *Overview, Location, Research aims/ questions/ hypotheses, Subjects/materials, Procedures, Limitations,* and *Data analysis*.

The following paragraphs discuss some differences and similarities found between the Saudi and the international corpora in the Methods sections.

As for the similarities, the occurrence of Move 5 (*Location*), Move 7 (*Subjects/materials*), and Move 8 (*Procedures*) are relatively high; these moves were conventional in both sets of data. These findings were in accord with previous studies, which established the significance of these moves in the Methods section (Khamkhien, 2015; Lim, 2006; Peacock, 2011; Pho, 2008a). Peacock (2011), for instance, reported that these three moves are extremely important in the social sciences, including the fields of language and linguistics. In the management discipline, which is considered a social science, as is applied linguistics, Lim (2006) showed that these moves occur frequently in his corpus. These findings indicated that authors in the field of languages and applied linguistics have been highly encouraged to employ these three moves to present important elements of the Methods section, such as locations, subjects and materials, and procedures.

The appearance of Move 4 (*Overview*) in both corpora needs further discussion. This move appeared in 11 (73.3%) RAs in the Saudi corpus, whereas it occurred in 4 (26.6%) RAs in the international corpus. The discrepancy found in this move is relatively high, although the result of chi-square goodness of fit test did not show a statistically significant difference ($X^2$ (1) = 0.1213, $p < .05$). The results were in agreement to a certain degree with findings in Peacock (2011) and Khamkhien (2015). Peacock reported that this move was relatively rare in the fields of languages and linguistics, with a 19% rate of occurrence in this corpus. In Khamkhien's (2015) study, this move also occurred in 48% of the corpus. However, in the Saudi corpus, the appearance of this move is

relatively high, which contradicts with Peacock (2011); hence, it is conventional. The results indicated that authors in the Saudi corpus preferred providing an overview of their studies at the beginning (and/or within the Methods section). This finding should be interpreted with caution because this move occurs less frequently compared with other moves in this particular section (Khamkhien, 2015).

Another discrepancy worth discussing is Move 10 (*Data analysis*). The occurrence of this move was higher in the international corpus (93%) than in the Saudi counterpart (66%). Although previous studies have shown how important this move is, especially in the social sciences (Cotos et al., 2017; Lim, 2006; Peacock, 2011; Pho, 2008a), it appears that some authors in the Saudi corpus did not employ this move in their studies. This can be attributed to some authors' not realizing the significance of describing data analysis for readers. As noted in Peacock (2011), this move describes how the data were analyzed, the analysis method. It is useful and important for novice writers, such as graduate students, to become aware of describing the methods of data analysis when they write publishable research papers.

In addition, the weight given to the Methods section compared with that given to other sections in RAs in both corpora is found to be very different. That is, the Methods section in the Saudi corpus was relatively shorter than the one in the international counterpart. The average weight in this section is 17% (i.e., about 15,247 words) of the whole Saudi corpus compared with 23% (i.e., approximately 27,094 words) in the international. This unbalanced distribution leaves the readers demanding more details on some main elements of the Methods section, such as Move 10 (*Data analysis*) and Move 8 (*Procedures*). As a result, Move 10 has fewer details in the Saudi corpus compared

with the one in the international corpus, which provided detailed information about data

analysis. This observation is attributed to Saudi authors' lack of awareness of the

importance of presenting a thorough description of how the data was analyzed. Graduate

students and novice writers need to be aware of this critical observation, which probably

accounts for a major reason for the rejection of a manuscript submitted to a scholarly

journal: failure to provide enough information about certain moves (e.g., *Data analysis*).

Below is an example of Move 10 representing a very general description of the analysis,

which certainly leads to misunderstanding or confusion over how the data were analyzed

in a study.

> (1) *A three-way analysis of covariance (ANCOVA) was used to answer the*
>
> *questions of the study. More specifically, ANCOVA was used to find out if*
>
> *there were any statistically significant differences at (0.05) between students`*
>
> *achievement mean scores according to way instruction, stream of study and*
>
> *the interaction between them.* (S10)

Concerning move structure, the Methods sections published in international

journals exhibited fewer variations than did the Saudi counterpart. The most frequent

move structure is M7-M5-M7-M8-M10, which was present in 5 (33.3%) Methods

sections in the international corpus, followed by M4-M7-M5-M7-M8-M10 and M4-M7-

M8-M10. This move pattern (M7-M5-M7-M8-M10) is similar to the one proposed by

Peacock (2011). The Saudi corpus showed a high degree of move structure; that is, there

were 15 different move patterns, although none of them was dominant, based on the

criterion established in Chapter 3, i.e., the pattern needs to appear in at least two RAs.

The degree of move structure variations in the Saudi corpus can be related to what

Peacock referred to as innovation in the Methods section. The degree of variation found in the present study also supported the claim that the Methods sections in language and applied linguistic disciplines are a more carefully presented step-by-step description of method (Peacock, 2011; Swales, 1990).

As far as move cyclicity, the analysis showed that Move 7 (*Subjects/materials)* and Move 8 (*Procedures*) are the most cyclical in both sets of data. This result matched the observations in previous studies (Amnuai, 2012; Lim, 2006; Peacock, 2011). According to Peacock (2011), move cycle structure in the discipline of language and linguistics is much more complex and has a greater number of cycles. It is worth mentioning that some authors in the Saudi corpus preferred opening the Methods section with Move 4 (*Overview*), while those in the international corpus favored opening with Move 7 (*Subjects/materials*). This can be attributed to the fact that, as discussed above, the occurrence of this move in the Saudi corpus is relatively higher than in the international counterpart. As for the closing move, the authors in the international data set tended to close the Methods section with Move 10 (*Data analysis*) more often than did their peers in the Saudi corpus. This finding is related to the relatively lower number of occurrence of this move, as well as the high degree of variations observed in the Saudi corpus.

A new move emerged based on the analysis of the Methods section: Move 5 (*Location*) and Move 7 (*Subjects/materials*) often occurred together. In particular, authors usually presented location in accordance with the subject or the sample of a study, as shown in the following examples:

(1) *Participants in this study were **72 students** recruited from two high schools in **Slovakia** with a Slovak-English CLIL (Content and Language Integrated Learning) bilingual programme.* (I3)

(2) *A total of **348 EFL students** at **Riyadh College of Technology** participated in this study.* (S5)

Apparently, presenting two moves in one sentence causes confusion to a genre analyst or an inflation in the results in terms of move cyclicity. In addition, describing materials and/or instruments of a study is often explained separately from the subject or sample of a study. To solve this, the present study proposes a new move referred to as *Describing Materials/Instruments*. The function of this move is to describe in detail the materials and instruments of a study being conducted without a mixture with other functions in the Methods section. In addition, the present study proposes a combination of the two functions (i.e., subject/sample and location). The main purpose of this move then is to clearly state the subject and location of a study, as they both occur in one sentence, as observed in the corpus of the current study.

**Results section.** According to Ruiying and Allison (2003), the model used to analyze the Results section encompasses six moves: *Preparatory information, Reporting results*, *Commenting on results, Summarizing results*, *Evaluating the study*, and *Deductions from the research.* The analysis revealed that M11 (*Preparatory information*), M12 (*Reporting results*), and M13 (*Commenting on results*) are conventional in both corpora. Few differences between both data sets occurred in, especially, Move 15 (*Evaluating the study*) and Move 16 (*Deductions from the research*).

As for the similarities, both sets of data shared three conventional moves (i.e., M11, M12, and M13). This finding was in line to some extent with previous studies in the field of applied linguistics (Pho, 2008a; Ruiying & Allison, 2003; Wannaruk & Amnuai, 2016). In Ruiying and Allison's (2003) study, only M12 and M13 were found to be conventional. In addition, the high frequency of M12 indicated that its core element was located in the Results section, in which authors reported their results, normally with relevant evidence, such as statistics and examples. On the other hand, although M11 was found to be conventional in both data sets, this result was in agreement with Pho (2008) and clashed with Ruiying and Allison's (2003) study. In the Saudi corpus, 93% employed M11, compared with 73% in the international. This observation suggests that the majority of writers in the Saudi corpus preferred to provide preparatory information for readers. In addition, the analysis indicated that Move 12 was usually preceded by Move 11 in both corpora due to the fact that the function of Move 11 is to direct the readers to particular results. In other words, most authors are likely to prepare the readers by providing the relevant background to the results that follow.

A self-mention feature was one of the striking differences in *Commenting on the results* moves in the Results and the Discussion sections. The self-mention strategy refers to "the extent of author presence in terms of first-person pronouns and possessives ['we/our' and/or 'I/my']" (Hyland, 2015b, p. 4). The analysis revealed that authors in the Saudi corpus employed self-mention pronouns ("we") only in three Discussion sections compared with their international peers, who used "we" in 6 instances in the Results section and in 10 instances in the Discussion section. In addition, the first-person possessive pronoun ("our") was found in two Results sections and seven Discussion

sections in the international corpus, but was nowhere to be founding the Saudi corpus. This was observed in Alharbi and Swales' (2011) study, which found little use of first-person pronouns in the analysis of 28 Arabic and English paired abstracts.

Sultan (2011) also found similar evidence when he examined metadiscourse of 70 Discussion sections (36 in Arabic, 34 in English) of linguistics research articles written by native speakers of English and Arabic. In fact, the reason behind employing a self-mention strategy is that some authors attempt to persuade and to gain credit for their arguments (Brett, 1994; Hyland, 2015b). The lower occurrences of first-person pronouns in the Saudi data set appeared to be related to cultural perceptions that "the written description of research properly requires a more formal style employing the passive and/or self-referring expressions such as 'this paper/study/research' " (Alharbi & Swales, 2011, p. 75). Below are three examples of the self-mention feature in the results (no. 1) and the Discussion (no. 2, 3) sections, respectively.

(1) *Note that **we** distinguish between collective and collaborative patterns.* (I7)

(2) *In other words, **we** may enhance learners' capacity for attention to the exigencies or needs of a task by giving them time in advance to plan for the performance of the task.* (S8)

(3) *It should be noted that because **our** study is the only one, to **our** knowledge, that investigated FFI from a macroscopic point of view, only indirect references to previous studies can be made when discussing **our** results.* (I8)

Few discrepancies reported in the analysis are related to the use of M13 Step 2 (*comparing results with literature*). In the present study, this step is optional, which occurs in 20% and 33% in the Saudi and the international corpora, respectively. This

finding contradicts findings from previous literature (Lim, 2011; Ruiying & Allison, 2003). Ruiying and Allison (2003), for example, reported that this step is the most frequent step, followed by Step 1 (*interpreting results*). On the other hand, Pho (2008a) and Wannaruk and Amnuai's (2016) studies showed that this step is optional. This can be attributed to the fact that some writers prefer to provide comparisons of results with those from previous studies in the Discussion section, leaving some space for the major findings in the Results section (Brett, 1994). A closer examination of the similar move/step in the Discussion section (i.e., *comparing results with literature*) indicated that the authors in both corpora compared their results with literature in all Discussion sections (100%). This confirmed that Step 2 (*comparing results with literature*) appeared more frequently in Discussion sections than in Results sections. Also, this is true for Step 3 (*accounting for results*) in the Results and the Discussion sections in both corpora.

Another difference worth discussing is found in the use of Move 15 (*Evaluating the study*) and Move 16 (*Deductions from the research*). Ruiying and Allison (2003) stated that these two moves are optional; they occurred in only one RA in their study. This was also observed in the corpus of the present study. However, the international corpus does not include either of these two moves, while the Saudi corpus employed Move 15 in 33% of the corpus. It is worth noting that these two moves were not established in Pho's (2008a) model, suggesting that these two moves are suitable in the Discussion section. Lastly, Move 16 (*Deductions from the research*) was not found in either corpus, indicating that authors favor pointing out recommendations for future research, as well as the limitations of their studies, in the Discussion section or in the Conclusion section.

Regarding the move structure of the Results section, both corpora displayed a degree of variation. Only the international corpus has two patterns (M11-M12-M13-M12-M13-M12-M13-M12 and M12-M13-M12-M13-M12-M13-M12); each of these two patterns occurred twice in the data set. The Saudi corpus, however, showed 15 different patterns. The sequence of moves and steps in each cycle tended to follow the prototypical order (M11-M12-M13). If M11 (*Summarizing results*) was absent, then M12 (*Reporting results*) was the initial element in a cycle. In addition, the most cyclical subpattern was M12-M13, which indicates that these two moves are essential in the Results section. These findings are consistent with the ones presented in previous literature in applied linguistics (Lim, 2011; Pho, 2008a; Ruiying & Allison, 2003), computer science (Posteguillo, 1999), sociology (Brett, 1994), biochemistry (Kanoksilapatham, 2005), and medicine (Nwogu, 1997). These studies confirmed that Move 12 and Move 13 were essential across disciplines, and novice writers need to be aware of the importance of these two moves when writing the Results section of an RA.

As for move cyclicity, the most cyclical move was M12, followed by M13. This result was also in agreement with Ruiying and Allison (2003), who argued that this section is highly cyclical. This could lead to a claim made by Pho (2008a) that the Results section of applied linguistics articles tended to be more elaborative. It is worth mentioning that the Results sections in the Saudi corpus revealed that M11 (*Preparatory information*) was highly cyclical (41 times) compared with the international corpus (15 times). The result of the chi-square goodness of fit test showed a statistically significant difference ($X^2$ (1) = 0.0008, $p < .05$). The finding indicated that a number of authors in

the Saudi corpus tended to provide preparatory information for readers in different places in the Results section, not only at the beginning of the section.

   ***Discussion section.*** The overall results revealed that all seven moves were found in the Saudi and the international data sets, in which Move 20 (*Commenting on results*) occurred in all 30 (100%) Discussion sections. The seven moves established in Ruiying and Allison's (2004) model are: *Background information, Reporting results, Summarizing results, Commenting on results, Summarizing the study, Evaluating the study,* and *Deductions from the research*. The following paragraphs discuss some differences and similarities found in the Saudi and the international corpora in the Discussion sections.

   The primary similarity found in both corpora was the occurrence of Move 20 (*Commenting on results*). This move was the most frequent and occurred in all Discussion sections, indicating that the main function of this section was to comment on the results of a study. This observation was found in the previous studies in applied linguistics (Amnuai, 2012; Amnuai & Wannaruk, 2013a; Le & Harrington, 2015; Lim, 2010; Pho, 2008a; Ruiying & Allison, 2004). On the other hand, these results contradicted studies in other disciplines, including history (Holmes, 1997) and seven other disciplines (Peacock, 2002). Unlike the present study, those studies did not provide any conventional moves in their corpora. This discrepancy was linked to the variations between applied linguistics and other disciplines.

   In addition, Move 20 encompasses four steps: interpreting results, comparing results with literature, accounting for results, and evaluating results. Similarly, these steps, except Step 4 (evaluating results), were conventional in both corpora. This

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underscores the important function of Move 20 in the Discussion section. Step 1 (*interpreting results*), although conventional in both corpora, happened with higher frequency in the international corpus (93%) than in its Saudi counterpart (73%). A closer look at the analysis revealed that some authors preferred to employ Step 2 (*comparing results with literature*) rather than interpreting the results, especially if the interpretation had already been made in the Results section. The frequency of occurrences of the three steps indicated that a well-written Discussion section needs not only to address *what has the study done*, but also to state *what does it mean* by making new knowledge claims and trying to persuade the readers to accept them (Basturkmen, 2009; Dobakhti, 2013; Paltridge & Starfield, 2007).

Move 18 (*Reporting the results*) was different in the two corpora. The move occurred in 93% of the international and 60% of the Saudi corpora, respectively. The finding about the Saudi corpus contradicted that of most studies identified in the literature (Amnuai, 2012; Amnuai & Wannaruk, 2013a; Dujsik, 2008; Le & Harrington, 2015; Lim, 2010; Pho, 2008a; Ruiying & Allison, 2004). These studies reported that Move 18 was the second most frequent move in the Discussion section. A substantial minority of authors in the Saudi corpus did not employ Move 18, perhaps because they considered that reporting results in the Discussion section to be redundant. Instead, the authors provided a summary for their results (i.e., Move 19). By looking closely at the matching move in the Results section (i.e., Move 18), the Saudi corpus reported results in 93% of the research articles. Overall, based on the findings found in the present study and in accordance with the previous ones in the literature, it can be concluded for pedagogical

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purposes that Move 18 (*Reporting the results*) and Move 20 (*Commenting on results*) are essential in the Discussion section in applied linguistics journals.

Another observation deserving discussion concerns Move 22 (*Evaluating the study*) and Move 23 (*Deductions from the research*). These two moves are employed in a majority of RAs (60–66%) in both corpora. This observation was consistent with Ruiying and Allison (2004), who indicated that these two moves are optional. Surprisingly, I thought at first that these two moves were important in the Discussion section, especially as they were quite uncommon in the Results sections. However, Ruiying and Allison (2004) clarified that the appearance of these two moves in a Discussion section was often influenced by whether there was a subsequent conclusion or pedagogical implications section. For instance, if a research article has a Conclusion section, the chance of finding these two moves (or their subsequent steps) in the section is high; otherwise, they occur in the Discussion section. Both corpora included Conclusion sections. A closer look at the corpora revealed that the two moves were the most frequent in the Conclusion sections.

A linguistics feature, hedges, was commonly found more frequently in the Discussion section than in other sections of RAs sections (Hyland, 2015b; Salager-Meyer, 1994; Vázquez & Giner, 2008). As mentioned in Hyland (2015b), hedges "mark the writer's reluctance to present propositional information categorically" (p. 4). It is in the Discussion sections that "authors make their claims, consider the relevance of results, and speculate about what they might mean, going beyond their data to offer the more general interpretations by which they gain their academic credibility" (Hyland, 2005, p. 154). For the analysis, Hyland's (2005) taxonomy was employed to extract hedges from

the Discussion sections in both corpora. This taxonomy does not make any distinction related to lexico-grammatical categories; instead, it provides a list of common hedges derived from his analysis (see Appendix E), which makes it more suitable for the present analysis.

In detail, the analysis revealed 59 hedges (665 tokens) in the international corpus versus 50 hedges (380 tokens) in the Saudi corpus. At first, the results pointed to similarities between both corpora in terms of the number of hedges employed by authors in the data sets. However, by looking at the tokens of hedges in both corpora, the result revealed a clear discrepancy. That is, authors in the international journals used more hedges and more varied hedges than did their peers in the Saudi journals. The result of the chi-square goodness of fit test showed a statistically significant difference ($X^2$ (1) = .0001, $p < .05$). A possible reason for different degrees of employment of hedges by writers may be related to cross-cultural and cross-linguistic backgrounds.

In a cross-cultural study, Hinkel (2002) compared native English writers' frequency of use of 68 linguistic features in English essays written by undergraduate students with the comparable usage of 77 students whose native language was not English, but one of six other languages (Chinese, Japanese, Korean, Vietnamese, Indonesian, and Arabic). The findings showed that native English speakers employed more hedges in their writing than did students from the six languages—except Korean. Arabic writers were the least likely to use hedges. On the other hand, Sultan (2011) pointed to cultural differences between Arabic and English languages concerning the use of interactive and interactional (e.g., hedges) metadiscourse in linguistics research

articles; he found that Arabic RAs employed more metadiscourse markers than did the English counterparts.

As for move patterns, the Saudi and the international corpora exhibited high diversity in the Discussion section. None of the patterns identified in both corpora met the criteria established in Chapter 3 to consider a pattern as cyclical: a pattern that occurred in at least two Discussion sections in each corpus. However, the analysis of the move pattern revealed highly cyclical *subpatterns*. That is, the patterns M18-M20 and M20-M18 were extremely cyclical; they frequently occurred in-between almost every pattern. For example, the patterns M17-M20-M18-M20-M23-M20-M18-M20-M22-M23-M20-M18-M20-M23-M22-M19-M23-M22-M23 and M17-M20-M18-M20-M18-M20-M18-M20-M18-M20-M17-M20 found in the Discussion sections published internationally and locally, respectively, included the subpattern M18-M20, which appeared twice in the pattern. Ruiying and Allison (2004) indicated that the Discussion section typically is highly cyclical, especially Move 18 and Move 20. Indeed, it is expected that M18 would be the second most commonly used move in both corpora due to the fact that M20 never appears by itself, but always in conjunction with another occurrence of M18. Furthermore, the results in the present study indicated no move pattern in a linear move sequence, a finding also reported in previous studies in linguistics (Amnuai & Wannaruk, 2013a; Dobakhti, 2013), science (Dudley-Evans, 1994), irrigation and drainage (Hopkins & Dudley-Evans, 1988), and across disciplines (Holmes, 1997).

Concerning move cyclicity, the most cyclical move in the Discussion section in both corpora was M20 (*Commenting on results*), followed by M18 (*Reporting results*).

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Despite the high cyclicity of these two moves, the authors in both corpora mostly chose to open the Discussion section with Move 1 (*Background information*). These findings contrasted with those of previous studies (Amnuai & Wannaruk, 2013a; Dobakhti, 2013; Holmes, 1997; Jalilifar et al., 2015; Swales & Feak, 2004). Those studies stated that reporting results was commonly used to open the section. As for closing the section, the majority of authors in the international corpus chose to use Move 23 (*Deductions from the research*), as observed by Dujsik (2008). Their Saudi peers, however, favored Move 20 (*Commenting on results*), as found in Jalilifar, Baninajar, and Saidian (2015). A likely reason for the complex move cycle structures found in the present study may be that some authors believed that their work had to be as acceptable and competitive as possible in the international discourse community (Holmes, 1997).

  ***Conclusion section.*** In the last section, all moves/steps appear in the Conclusion in both sets of data. This section embraces three moves: *Summarizing the study, Evaluating the study,* and *Deductions from the research*. It appears that all moves were conventional in both corpora, except that Move 25 (*Evaluating the study*) was optional in the international data set. A couple of variations between both sets of data are discussed in the following sections.

  Move 24 (*Summarizing the study*) was the second most frequent move in the Conclusion section, in which the majority of authors (86%) in the international corpus employed M24 compared with their Saudi peers (73%). This finding conforms to results obtained by Moritz, Meurer, and Dellagnelo (2008); their study investigated the Conclusion section in Portuguese and English languages. However, this finding contrasted with the majority of the previous studies in various disciplines: in psychology

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(Adel & Moghadam, 2015), natural sciences (Aslam & Mehmood, 2014), and linguistics (Amnuai & Wannaruk, 2013b; Morales, 2012; Ruiying & Allison, 2004; Vuković & Bratic, 2015). These studies indicated that this move occurred the most frequently in the Conclusion section in applied linguistics. For instance, Morales (2012) found that Move 24 was a mandatory move in the Conclusion sections written in the English language by Japanese authors in applied linguistics. It is apparent then that some authors preferred to focus more on the other two moves: *Evaluating the study* or *Deducing recommendation and pedagogical implications*. This kind of preference was derived from the notion of establishing credibility; that is, some researchers preferred to evaluate their studies to establish credibility through their articles, thus making them credible researchers in their own discipline (Morales, 2012; Sandoval, 2010).

As for Move 25 (*Evaluating the study*), it occurred less frequently, with 66% and 73% in the international and the Saudi sets of data, respectively. Although the percentage of occurrence in both data sets is relatively frequent, it indicates that some authors in both data sets either evaluate their studies in the Discussion section or avoid evaluating their studies altogether. This can be attributed to the presence of this move in the Conclusion section and in the Discussion, although with some variation in observed steps. It is noteworthy, however, to mention that the Discussion and Conclusion sections differ in terms of their primary functions (Ruiying & Allison, 2004).

The three steps that encompass Move 25 (i.e., *indicating significance/advantage*, *indicating limitations*, and *evaluating methodology*) were found to be employed with moderate frequency by authors in other studies in different contexts: in Pakistan (Aslam & Mehmood, 2014), Iran (Adel & Moghadam, 2015), Brazil (Moritz et al., 2008), and

Thailand (20%, Amnuai & Wannaruk, 2013b). A closer look at the results in this study revealed that the majority of authors in both corpora employed Move 25 to indicate the significance, limitations, strengths, and weaknesses of their studies. Also, it appears that some writers in the Saudi corpus seemed to be reluctant to mention limitations in their studies, which can be attributed to cultural issues. That is, the term *limitations* seemed to be understood as a self-criticism, so some authors avoided listing limitations of their studies. On the other hand, their peers in the international corpus were more prone to use this move to evaluate their own studies.

The most frequent move in the Conclusion section was Move 26 (*Deductions from the research*), which occurred 100% of the Saudi RAs and in 80% of the international corpora. Interestingly, the Saudi corpus exhibited more frequent occurrence of M26 than the international counterpart, even at the steps level: *recommending further research* and *drawing pedagogical implications*. This can be attributed to the fact that a number of authors in the international corpus preferred using these two steps interchangeably in the Discussion and Conclusion sections. Their peers in the Saudi corpus, however, focused more on establishing these two steps in the Conclusion section, where these authors allocate subsections entitled *recommendations for future research* and/or *pedagogical implications*. The guidelines for authors found in the journals published locally in Saudi Arabia encouraged authors to write pedagogical implications for the readers. The results in a comparative study carried out by Wannaruk and Amnuai (2016) contradicted those in the present study.  The authors found that Move 26 appeared in only 20% of the Thai corpus, compared with 90% in the international one. Therefore, it can be inferred that Move 26 is highly recommended in the Conclusion section.

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Regarding its move structure, the Conclusion sections published locally demonstrated almost twice the move patterns found in the international corpus. The chronological move pattern M24-M25-M26 was the most frequent in both sets of data in three RAs (20%) in each corpus, followed by M24-M26. The subpattern M25-M26 was the most cyclical subpattern observed in the data. These results are in line with findings from prior research (Adel & Moghadam, 2015; Ruiying & Allison, 2004), which stated that most Conclusion sections have a linear structure, although this finding was contradicted by Amnuai and Wannaruk (2013b). Adel and Moghadam (2015) investigated the Conclusion section in three fields (English applied linguistics, Persian literature, and Persian articles in psychology). The results indicated some cross-culturally and cross-disciplinary variations. In addition, the Conclusion sections in both data sets showed an incomplete move structure: omitting one or two moves in the structure. For instance, these three patterns—M24-M26, M24, and M26-M24-M26—showed omitting moves; for example, the pattern M24-M26 misses M25. Moreover, the Conclusion section can have only one move, as in M24 (e.g., I9) and M26 (e.g., S10) in the international and the Saudi corpora, respectively.

Concerning move cyclicity, Move 26 (*Deductions from the research*) was the most cyclical move in both sets of data, occurring in 18 RAs in the international corpus and in 23 RAs in the Saudi corpus. These results were not in agreement with Ruiying and Allison (2004), who reported that Move 24 (*Summarizing the study*) was the most cyclical move. Similar to findings from previous studies, in the present study, the majority of the authors in both corpora preferred to begin the section with Move 24 and to close with Move 26. This seems common and reasonable as a linear order mentioned

earlier because the authors start by summarizing their studies usually in one paragraph, followed by stating a short evaluation if necessary, and then closing by recommending future research and pedagogical implications in a couple of paragraphs, as found in Lakić et al. (2015) and Wannaruk and Amnuai (2016). The following section discusses the lexical bundles identified in both corpora.

**Lexical Bundles**

Appendix C shows all the lexical bundles (LBs) extracted from the Saudi and the international corpora. As a reminder, the criteria described in Chapter 3 involving the inclusion of bundles yielded a total of 350 types of LBs (with 59% in the Saudi and 41% in the international corpora). The fact that there are a greater number of different four-word bundles in the Saudi corpus indicated that these authors relied on lexical bundles to a greater extent than did their peers in the international corpus. The results accorded with those from previous studies: in agriculture science (Shi, 2014) and in applied linguistics (Amnuai, 2012; Öztürk & Köse, 2016). Those studies emphasized that writers who published their work locally employed a greater variety of lexical bundles than did authors in the international corpus. For instance, Shi (2015) reported that Thai writers who publish in Thai journals implemented a wider degree of LBs than did those in the international corpus in the field of agriculture science. The lexical bundles of four-word length found in each section are discussed in the following sections in terms of their structural and functional classifications.

As Chen and Baker (2010) observed, lexical bundles are grouped under three broad categories: "NP-based," "PP-based," and "VP-based." NP-based bundles and phrasal verb bundles include noun phrases and prepositional phrases, respectively, while

VP-based bundles refer to word combinations with a verb component (Chen & Baker, 2010, pp. 34–35). A fourth category ("Other") was established to include any other lexical bundles "that do not fit neatly into any of the other categories" (Biber et al., 1999, p. 1024).

**Comparison of the lexical bundles and their structural and functional classifications between the two corpora.** Overall, the procedures of four-gram LBs extraction and refinement described in Chapter 3 produced a total of 145 types, with 358 tokens (i.e., frequent) of lexical bundles from the international set of data and 205 types with 597 tokens from the Saudi counterpart, so writers of Saudi RAs can be said to use many different lexical bundles quite repetitively in their writing. Several bundles in other studies (Biber et al., 1999; Hyland, 2008c) overlapped with the bundles found in the current study. As shown in Table 42, the two groups shared only 22 out of 350 types of bundles. The frequency of occurrence of each bundle in the international and the Saudi corpora is presented in parentheses. It can be clearly seen that a number of bundles are frequently employed in one corpus but not the other. For instance, the bundle *are likely to be* was found in the international corpus 12 times compared with 2 times in the Saudi counterpart. On the other hand, the Saudi corpus greatly outnumbers the international in the occurrence of the bundle *the results of the*, which occurs in 42 and 15 times, respectively. Several similarities and differences relating to these bundles and others are discussed later in this chapter.

Table 42: lexical bundles (types) shared by both corpora

| 1. are likely to be (12:2)[*] | 2. as well as the (10:11) | 3. at the same time (9:7) |
|---|---|---|
| 4. in each of the (2:6) | 5. in the case of (20:5) | 6. it is important to (14:6) |
| 7. on the basis of (13:10) | 8. on the other hand (32:25) | 9. one of the most (4:7) |

| | | |
|---|---|---|
| 10. that the majority of (2:5) | 11. that there is a (2:16) | 12. the effect of the (4:17) |
| 13. the extent to which (11:12) | 14. the following research questions (3:4) | 15. the majority of the (2:11) |
| 16. the purpose of the (10:9) | 17. the results indicated that (6:5) | 18. the results of the (15:42) |
| 19. the results of this (6:11) | 20. they were asked to (4:8) | 21. to shed light on (3:3) |
| 22. statistically significant difference between (6:6) | | |

 * The frequency of occurrence of bundle international corpus : Saudi corpus)

As shown in Table 43, the analysis revealed high frequency of use of lexical bundles (i.e., tokens) in the Saudi corpus compared with the corresponding use of them in the international counterpart. The calculation of type-token ratios (TTR) showed that the international corpus scored .41, in comparison with the Saudi corpus score of .34. This result indicated that while the authors in the Saudi corpus used a greater number of bundles in terms of types and tokens, the authors in the international corpus showed a greater variety in their use of bundles. In other words, the authors in the Saudi corpus repeatedly employed several lexical bundles in their articles instead of using different varieties of bundles.

Table 43: Types and tokens of lexical bundles in each section in both corpora

| Sections | International | | | | Saudi | | | |
|---|---|---|---|---|---|---|---|---|
| | Types | Tokens | TTR | Total # of words | Types | Tokens | TTR | Total # of words |
| Introduction | 43 | 103 | 0.42 | 30758 | 95 | 289 | 0.33 | 39804 |
| Methods | 28 | 69 | 0.41 | 27094 | 18 | 42 | 0.43 | 15247 |
| Results | 23 | 57 | 0.40 | 30790 | 38 | 134 | 0.28 | 21132 |
| Discussion | 48 | 123 | 0.39 | 27428 | 34 | 90 | 0.38 | 17159 |
| Conclusion | 3 | 6 | 0.50 | 6609 | 20 | 42 | 0.48 | 6105 |
| Total | 145 | 358 | 0.41 | 122679 | 205 | 597 | 0.34 | 100952 |

The structural and functional classifications of all lexical bundles in the Saudi and the international corpora are summarized in Figure 3 and Figure 4, respectively. Generally speaking, the structural analysis revealed a certain degree of similarity between both corpora, with slightly greater use of NP-phrase bundles in the Saudi corpus. The authors in both corpora utilized NP-based and PP-based structures, namely phrasal structures rather than clausal or VP-based structures. These findings were consistent with findings from other studies in applied linguistics (Ädel & Erman, 2012; Biber et al., 1999; Cortes, 2004) and in telecommunications (Pan et al., 2015). Those studies suggested that native speakers of English primarily used phrasal bundles in academic prose (Gungor & Uysal, 2016). For instance, Biber et al. (1999) stated that academic prose included about 50% phrasal sequences of the high-frequency bundles.

Figure 3: Structural distribution of bundles in both corpora (tokens)

| | NP-based | PP-based | VP-based | Other |
|---|---|---|---|---|
| Saudi | 30% | 26% | 29% | 15% |
| International | 23% | 31% | 32% | 13% |
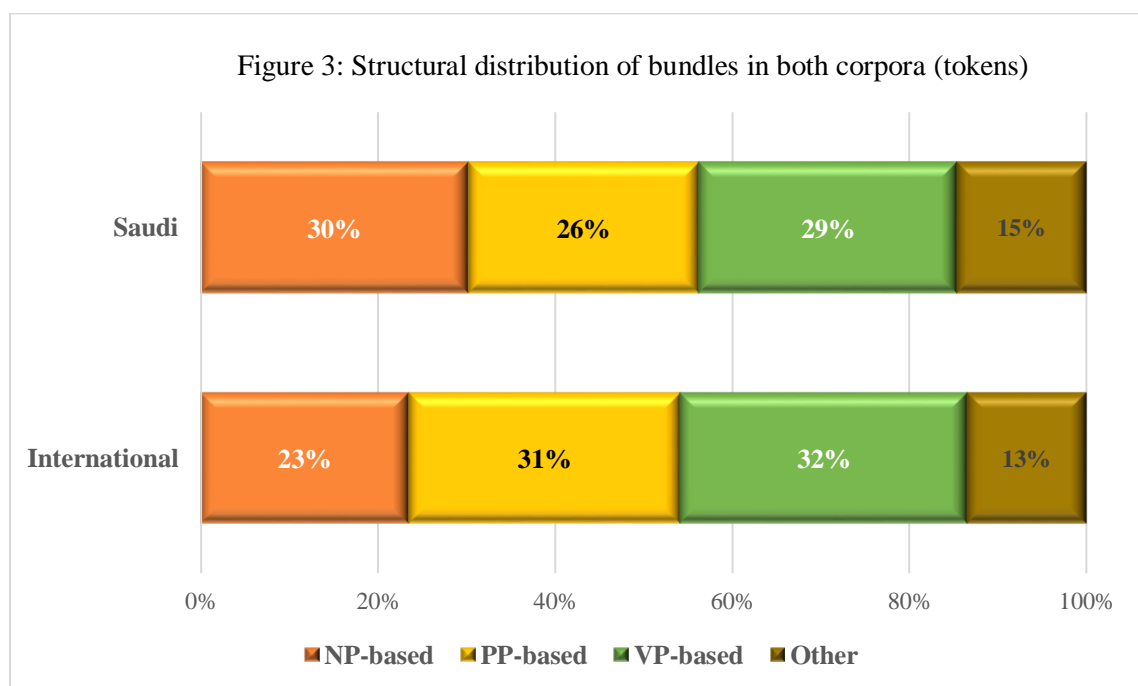
As for functional classification, the analysis revealed a degree of variations, especially in research-oriented and participant-oriented categories. The authors in the

Saudi corpus employed research-oriented bundles in almost half of their RAs; these bundles "help writers to structure their activities and experiences of the real world" (Hyland, 2008b, p. 49). As for participant-oriented bundles, the international corpus exhibited more frequent use of stance and engagement bundles, as observed in some previous studies (Ädel & Erman, 2012; Hyland, 2008b). Those studies found that native English scholars used more participant-oriented bundles. The use of participant-oriented bundles indicated that "writers sought to establish their claims through more explicit evaluation and reader engagement" (Hyland, 2012, p. 164). In addition, the text-oriented bundles were employed at a higher frequency in the international corpus than in the Saudi counterpart, mirroring the findings of other studies (in applied linguistics, Chen & Baker, 2010; in telecommunication, Pan et al., 2015). However, other studies obtained different results (Ädel & Erman, 2012; Biber, 2009); in those studies, the majority of the bundles were research-oriented. The main purpose of the text-oriented bundles is to organize texts and deliver the arguments in research articles.

Given that previous studies revealed some degree of variation in terms of structural and functional classifications of lexical bundles, it can be inferred that there may be divergent cross-linguistic and/or cross-culture influences (e.g., Ädel & Erman, 2012; Bal, 2010; Chen & Baker, 2010). That is, formulaic language (e.g., lexical bundles) may not be acquired only through formal instruction, but also through informal incidental learning—e.g., extensive academic reading and repeated usage of patterns through extensive writing (Ellis, 2008; Li & Schmitt, 2009; Pérez-Llantada, 2014). The following subsections analyze structurally and functionally the lexical bundles associated with each move in the complete RA sections (IMRDC).

Figure 4: Functional distribution of bundles in both corpora (tokens)
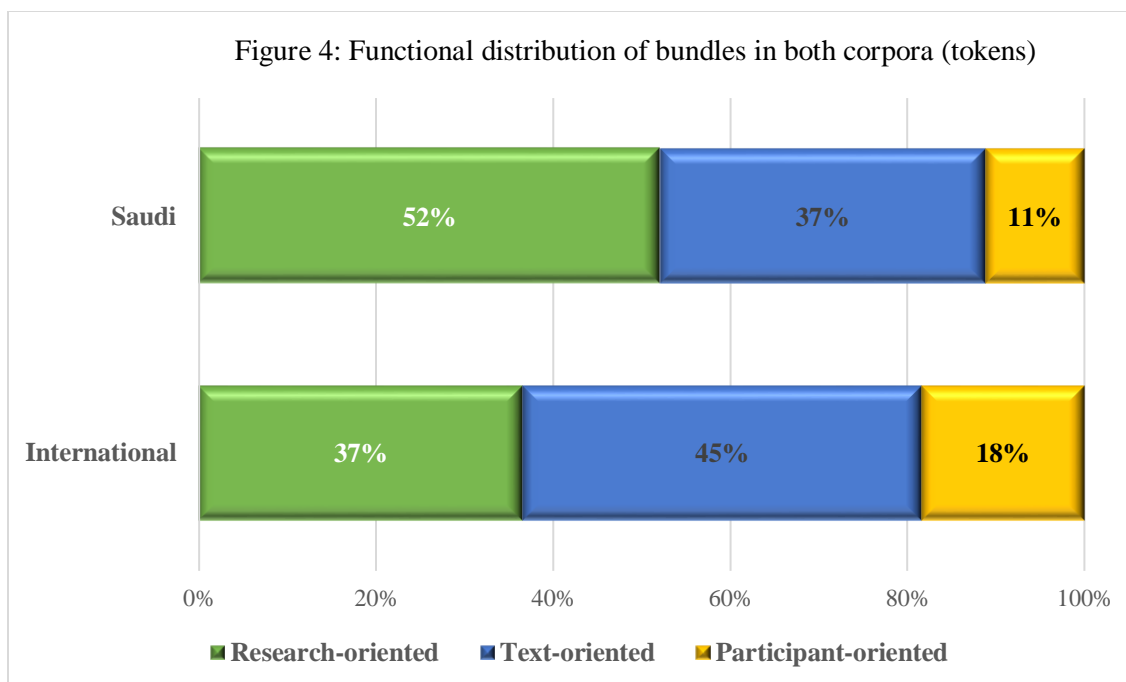
***Introduction section.*** The Introduction section encompasses a total of 138 LBs, with almost twice of the frequency of LBs occurring in the Saudi corpus (69%) than in the international corpus (31%), which can be attributed initially to the length of this section in the Saudi corpus, discussed below. The international and the Saudi corpora shared two lexical bundles in Move 1 (*Establishing a territory*, i.e., *one of the most . . . , on the other hand . . .*); the former bundle was found in three RAs in each corpus, while the latter was found in two RAs in the Saudi data set and in three RAs in the international data set. Also, both corpora shared 10 bundles in Move 2 (*Establishing a niche*) and two bundles in Move 3 (*Presenting the present work*).

*Structural classification.* Previous studies have emphasized that lexical bundles are often incomplete units (Biber et al., 1999; Biber & Conrad, 1999; Cortes, 2004). The bundles identified in Move 1 belong to the four categories delineated above. That is, LBs incorporate noun phrases or prepositional phrase fragments, such as (*one of the most, as one of the*, *at the same time*). As for verb phrase, only two fragments were identified: Be

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+ noun/adjective phrase (e.g., *is one of the*) in the Saudi corpus and anticipatory *it +* verb/adjective phrase (e.g., *it is well established that*). As for Move 2 (*Establishing a niche*), both corpora included bundles from all four categories. The data showed that the Saudi corpus exhibited a greater number of bundles. Lastly, the international corpus had only 7 bundles compa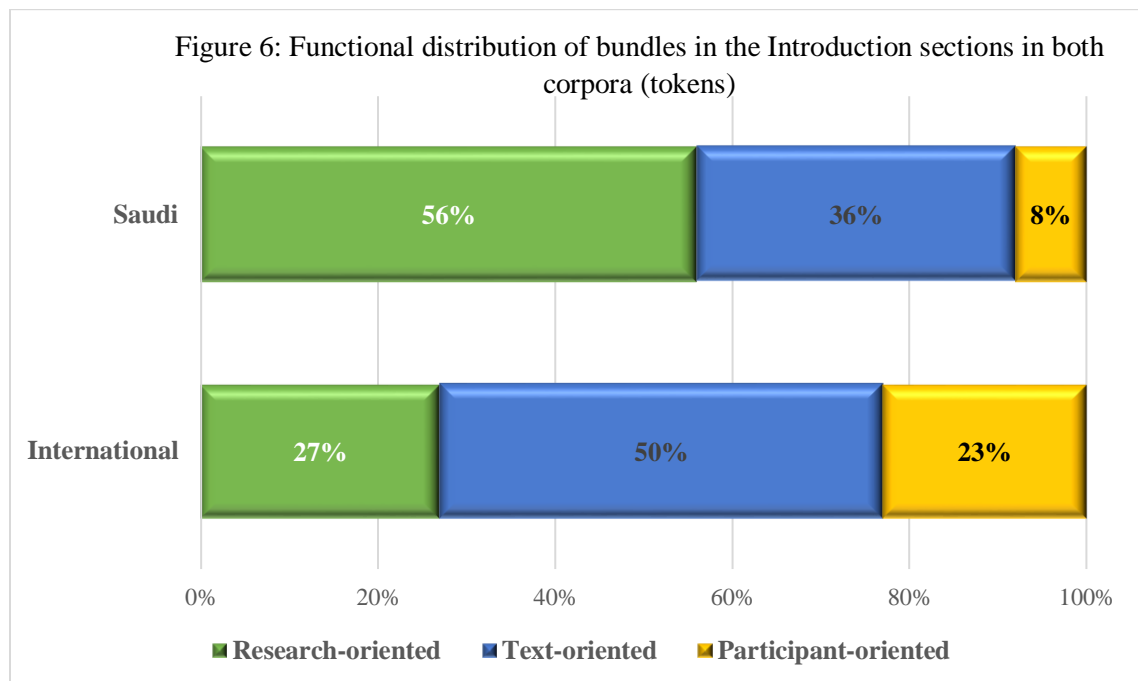red with 25 in the Saudi counterpart in the third move (*Presenting the present work*). These findings are in line with those of other studies in the literature (e.g., Biber et al., 1999).

The most striking difference between both sets of data was the apparent overuse of NP-based bundles. As can be seen in Figure 5, the two corpora displayed similar proportions of three structural categories: PP-based, VP-based, and Other. The authors in the Saudi corpus, however, employed twice as many NP-based bundles (34%) as did their peers in the international corpus (17%). This overuse probably reflected the inadequacy of some writers in the Saudi data set to use noun phrase structures. Furthermore, Halliday (1989) argued that the overuse of the noun phrase can be related to translation from L1 to L2 (Gungor & Uysal, 2016). Also, this overuse of the NP-phrase may have resulted from the size of the corpus. That is to say, there are a limited number of LBs in the Introduction sections of the international corpus (103 tokens) compared with 289 tokens found in the Saudi data set. As stated above in this chapter, the Introduction sections written by authors in the Saudi corpus tend to be lengthy. Typically, longer texts use more signals and bundles to guide the reader through the text (Pan et al., 2015). In other words, a closer look at the corpora revealed that the Introduction sections in the Saudi corpus comprised about 40% of the corpus, whereas the Introduction section in the international corpus comprised only 25% of the corpus.

Figure 5: Structural distribution of bundles in the Introduction sections in both corpora (tokens)

| | NP-based | PP-based | VP-based | Other |
|---|---|---|---|---|
| Saudi | 34% | 26% | 27% | 13% |
| International | 17% | 32% | 28% | 22% |
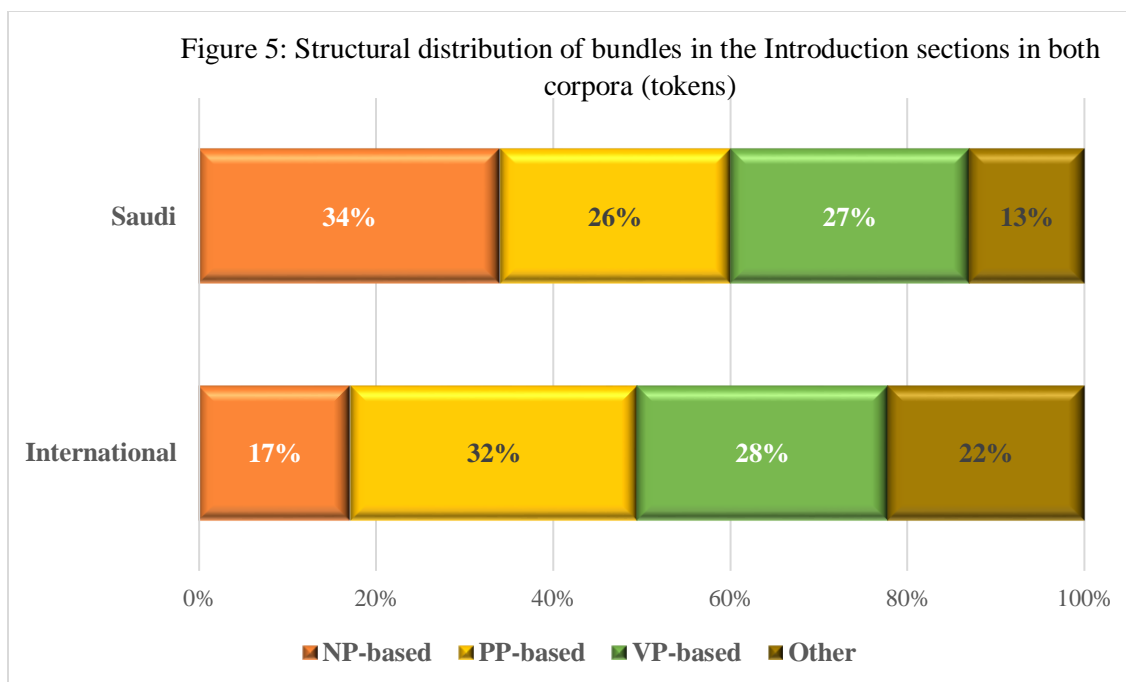
*Functional classification.* The functional classification of the bundles identified in the Introduction sections is analyzed based on Hyland's (2008c) classification (i.e., research-oriented, text-oriented, participants-oriented). As can be seen in Figure 6, the two corpora displayed differences in terms of the use of the three categories. That is, the Saudi corpus made a much heavier use of research-oriented and text-oriented approaches, while half of the LBs fell under the text-oriented category in the international corpus. Unlike the Saudi data set, the finding from the international data set was consistent with Hyland (2008c), in whose study text-oriented bundles were commonly used in the field of applied linguistics. Text-oriented bundles in the international corpus were extensively employed to "provide familiar and shorthand ways of engaging with a literature, providing warrants, connecting ideas, directing readers around the text, and specifying limitations" (Hyland, 2008c, p. 16). On the other hand, the research-oriented bundles occurred less frequently compared with their use in other disciplines (biology, electrical engineering, and business studies) found in Hyland's (2008c) study, in which these

bundles functioned as contributing to the description of research objects or contexts (Hyland, 2008c).

Figure 6: Functional distribution of bundles in the Introduction sections in both corpora (tokens)

| | Research-oriented | Text-oriented | Participant-oriented |
|---|---|---|---|
| Saudi | 56% | 36% | 8% |
| International | 27% | 50% | 23% |

Another difference worth discussing was related to the participant-oriented category. The function of lexical bundles in this category is to provide a structure for interpreting a proposition to convey two main kinds of meaning: stance and engagement (Hyland, 2005). In the Introduction section, the use of stance and engagement bundles was far greater in the international corpus (23%) compared with the Saudi (8%), despite the fact that the latter encompassed more bundles (103/289 tokens). The avoidance of using participant-oriented bundles (i.e., stance and engagement features) by some writers in the Saudi corpus indicated that they probably felt uncomfortable about explicitly evaluating their work and/or their arguments. According to Hyland (2008c), such features play a significant role in high-stake genres, with which some authors in the Saudi corpus may not be familiar. Below is an example of a stance feature, in which the author establishes his claim through more explicit evaluation and engagement. The bundle *are*

*likely to be* occurs 12 times in the entire international corpus compared with only 2 times in the Saudi counterpart.

(1) *Such challenging conditions **are likely to be** optimal for engendering feelings of teacher language anxiety*. (I15)

(2) *A second monitor inspects the developing representation and deletes or edits sequences that **are likely to be** the result of errors*. (S3)

***Methods section.*** The Methods section involves a total of 46 LBs (28 in the international and 18 in the Saudi). The international and the Saudi corpora shared three lexical bundles (i.e., *the purpose of the*, *they were asked to*, *in the present study*). The lexical bundles were only found in five moves. Move 7 (*Subject/material*) included the majority of LBs in the Methods sections in both corpora (international: 39%; Saudi: 50%). Also, 36% of LBs in the international data set is found in Move 10 (*Data analysis*). The rest of the LBs are distributed across the rest of the moves. For instance, Move 5 (*Location*) has only one bundle (i.e., *the study was conducted in*) located in the Saudi corpus.

*Structural classification*. The analysis of structural categories revealed some points that need to be considered (see Figure 7). First, it is clear that the Methods sections published locally and internationally rely heavily on noun and prepositional phrases (total of 48% and 71% of the bundle tokens, respectively). This finding was in line with findings from previous studies (Biber et al., 1999; Biber & Conrad, 1999; Pan et al., 2015), indicating that lexical bundles in written academic prose are predominantly phrasal rather than clausal. This can be attributed to the phrasal features in written academic prose. In other words, phrasal features are associated with their high

informational focus, in which the Methods section provides descriptive information about the subjects, materials, and procedures of a study.



Figure 7: Structural distribution of bundles in the Methods sections in both corpora (tokens)
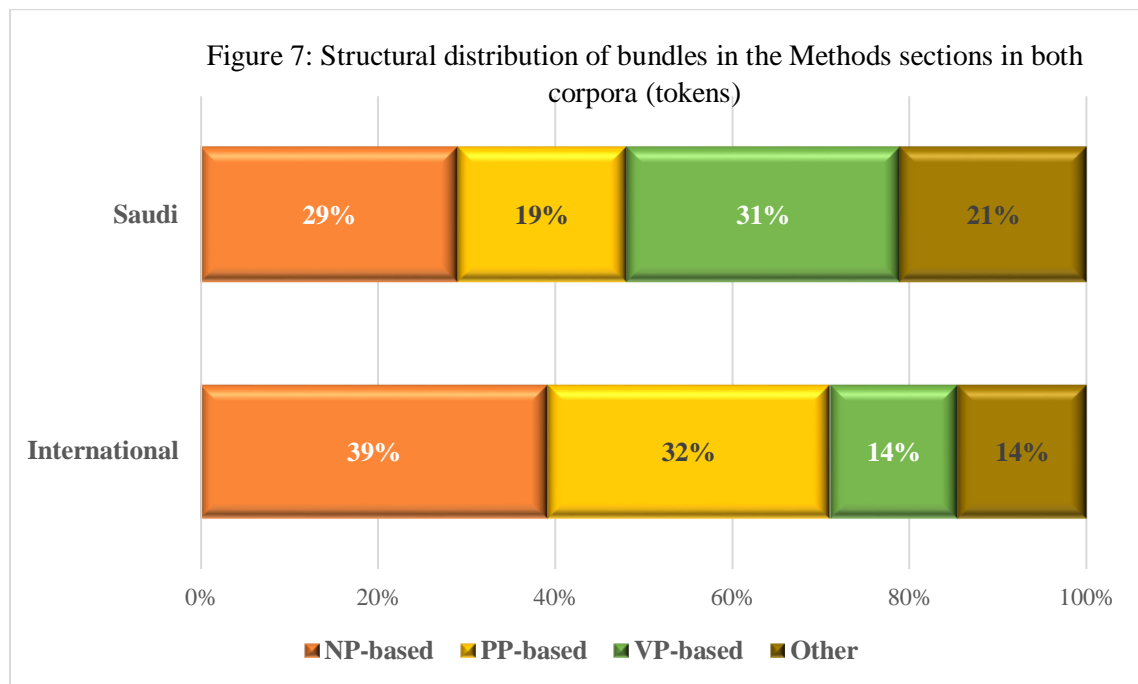
The second point is related to the use of VP-based bundles in both corpora. A number of writers in the Saudi data set continued to rely on verb-based phrases (31% of bundle token). In contrast, the Methods sections in the international corpus exhibited far less frequent use of VP-based bundles. These findings are consistent with those of Chen and Baker (2010), who indicated that nonnative English writers tend to use more VP-phrase bundles than do their native English peers. A possible explanation is related to the different nature of the Methods sections compared to the Introduction.

*Functional classification.* As can be seen in Figure 8, both corpora displayed a certain degree of similarity in terms of the function of lexical bundles. The apparent difference relied on the use of participant-oriented features in the international corpus, which are omitted in the Saudi counterpart. The subcategory *procedure* in the research-oriented category was used the most frequently by authors in both data sets, especially in

Move 7 (*Subject/material*), Move 8 (*Procedure*), and Move 10 (*Data analysis*). This can

be related to the functions that these moves represent. For instance, in research-oriented

academic prose, some bundles are used to present the procedure of a study (e.g., *the*

*purpose of the study, in order to explore*), while other bundles are employed to quantify a

study, as in *a wide range of*, and *one of the most*. Below are examples of quantifying and

procedure bundles.

(1) *Collins et al. (2009) also noted that the past progressive is more available and*

*accessible in the input as it occurs across **a wide range of** common and highly*

*frequent verbs. (I13)*

(2) *The participating students were informed about **the purpose of the study** and*

***were asked to fill out** the questionnaire carefully and honestly, bearing in*

*mind that there were no right or wrong answers.* (S9)

Figure 8: Functional distribution of bundles in the Methods sections in both corpora (tokens)

| | Research-oriented | Text-oriented | Participant-oriented |
|---|---|---|---|
| Saudi | 81% | 19% | 0% |
| International | 61% | 30% | 9% |
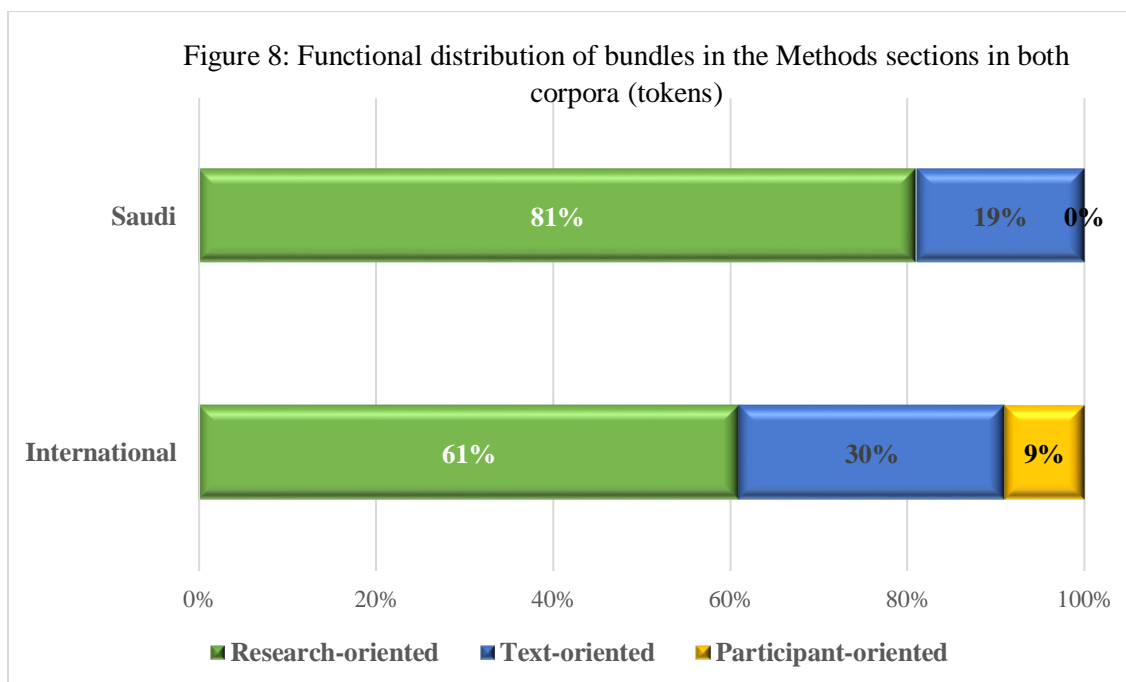
***Results section.*** A total of 61 bundles were extracted from both corpora in the

Results section. As was found with the Introduction section, in the Results section, the

Saudi set of data outnumbered the international with 38 and 23 bundles, respectively.

Most of the bundles were located in Move 12 (*Reporting results*), whereas Move 16

(*Deductions from the research*) did not have any corresponding bundle. Also, the analysis

did not reveal any bundles in Move 11 (*Overview*), Move 14 (*Summarizing results*), or

Move 15 (*Evaluating the study*) in the international corpus, while these moves

incorporate four bundles in the Saudi data set (e.g., *at the beginning of the, in order to*

*ensure, it is clear from the findings of the study that, The main goal of*). The absence of

bundles in M16 and the limited number of bundles in M11, M14, and M15 were related

to the limited use of these moves by writers in both sets of data. These writers utilized

these moves in a couple of sentences or short paragraphs. In addition, both corpora shared

four bundles found in Move 12 (i.e., *statistically significant difference between, in each*

*of the, the majority of the,* and *the results of the*).

      *Structural classification*. The distribution of bundles in the Results section in both

corpora is presented in Figure 9. Overall, both sets of data shared similar distribution

across the four categories. The most notable difference between both data set is the

extensive use of passive verb + prep. phrase fragment (e.g., *are presented in table, can be*

*seen in, were observed in the*) in the international corpus compared with the Saudi

corpus. This subcategory was often used to present the results of a study.

Figure 9: Structural distribution of bundles in the Results sections in both corpora (tokens)
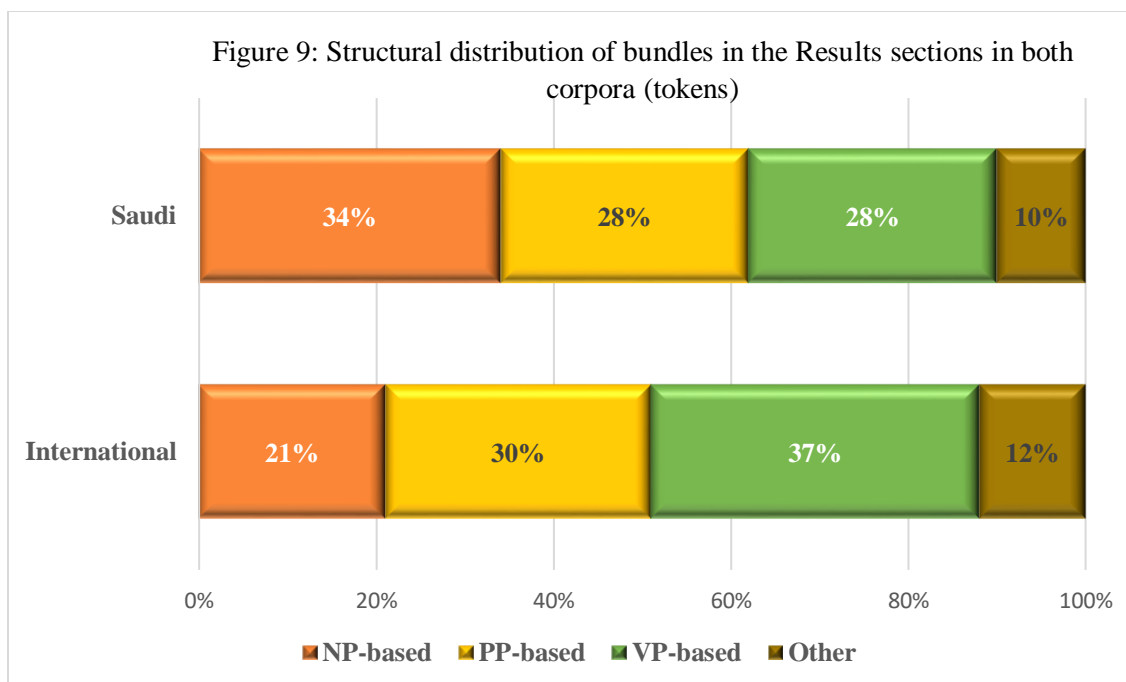
The Saudi corpus incorporated, perhaps, the longest bundle identified to date in applied linguistics, which is found in Move 14 (i.e., *it is clear from the findings of the study that*); this bundle belongs to anticipatory *it* + verb/adjective phrase. This bundle occurred in two different RAs (i.e., S1 and S11). Although this bundle can be considered as a combination of three-word or four-word bundles (e.g., *it is clear from, the study that*), all of these bundles occurred in the two articles; therefore, the bundles were merged to guard against inflated results (Chen & Baker, 2010). Longer bundles were also reported by Cortes (2013) and Biber et al. (1999). For instance, Cortes (2013) reported this bundle: *the remainder of the paper is organized as follows* as the longest bundle in her study. Also, these studies emphasized that the longer the bundle, the less frequent it becomes in any corpus.

*Functional classification.* The classification of bundles in both corpora is presented in Figure 10. Overall, it appears that the Saudi and the international corpora have similar functional classification. Despite the similarities found in the data sets, some

subcategories in the two data sets outnumber each other. For instance, in text-oriented, there are four resultative signal bundles in the international corpus, while there are five in the Saudi counterpart. The frequent occurrence (tokens) in the Saudi data set (29 tokens) is more than three times the number found in the international (9). For example, the resultative signal *the results of the* occurs in both corpora; its corresponding number of tokens is 11 in the Saudi and 3 in the international Results sections. This indicates that writers in the international corpus preferred using different bundles to report their results. On the other hand, the overuse of certain bundles at high levels of significance (e.g. *the results of the*) accounted for the familiarity that the authors in the Saudi corpus had and thus that they were closer to achieving full proficiency in how to employ these bundles efficiently (Pérez-Llantada, 2014). In the following examples, the bundle *the results of the* is employed to report results in Move 12 (*Reporting results*). In the second example, there are three functions in one sentence: resultative signals (i.e., *the results of the*), stance features (*be attributed to the*), and procedures (i.e., *statistically significant differences*).

(1) ***The results of the*** *frequency analysis are presented in Table 5.* (I8)

(2) ***The results of the*** *two-way MANOVA are shown in Table 5 above, and they reveal* ***statistically significant differences*** *among the EFL Preparatory Year students' literal and inferential reading comprehension achievements that can* ***be attributed to the*** *interaction between the teaching method and the subjects' preferred learning styles.* (S2)

Figure 10: Functional distribution of bundles in the Results sections in both corpora (tokens)

| | Research-oriented | Text-oriented | Participant-oriented |
|---|---|---|---|
| Saudi | 49% | 48% | 3% |
| International | 37% | 49% | 14% |

■ Research-oriented   ■ Text-oriented   ■ Participant-oriented
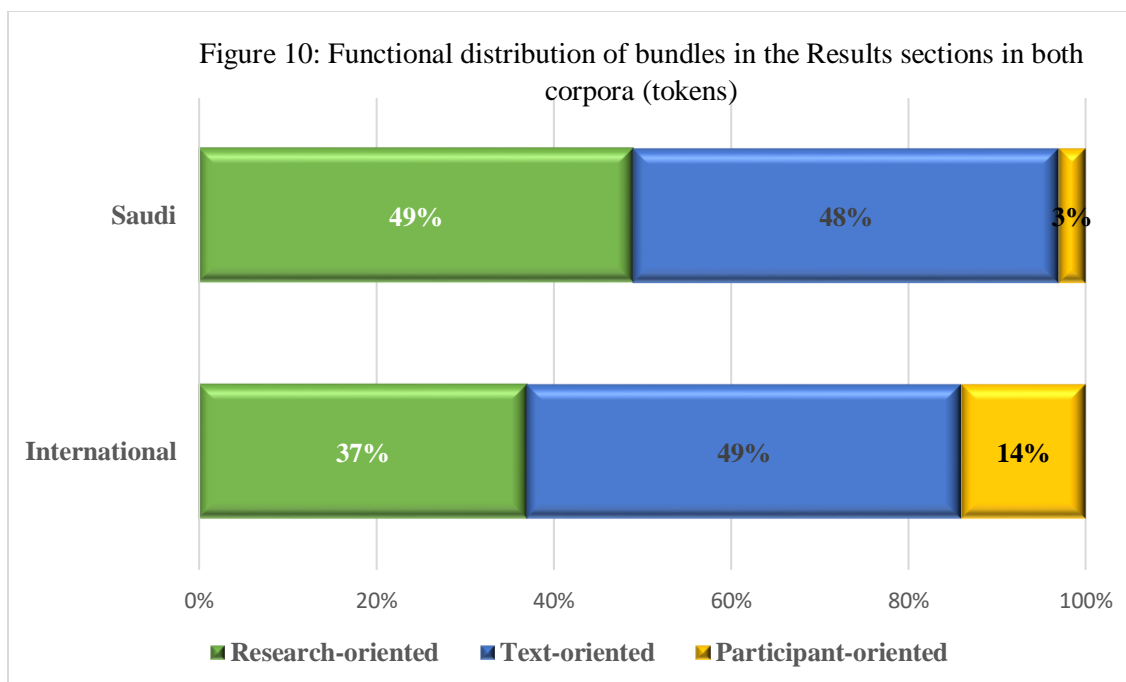
In addition, the appearance of *the results of the* bundle in three different sections merits discussion. This bundle occurred in the Introduction section (i.e., Move 2, *Establishing a niche*, and Move 3, *Establishing a territory*), the Results section (i.e., Move 12, *Reporting results*, and Move 13, *Commenting on results*), and the Discussion section (Move 18, *Reporting results*, and Move 22, *Evaluating the study*) in both corpora, except in Move 22, which occurred only in the Saudi corpus. This bundle showed up frequently (international: 15; Saudi: 43), indicating that it served different functions in each section. Cortes (2013) reported that a lexical bundle can represent more than one move or step. In Example 3 (shown below) extracted from Move 2, this bundle functions as a summary of a point found in the literature, and then the authors here attempted to link this summary to their study. Another function of this bundle was found in Example 4, which was extracted from Move 12. Simply put, the function here was to present the results in the author's study. In Example 5 (Move 13), the authors employed this bundle as a device in commenting on their results to refer to particular findings. Lastly, in

Example 5 (Move 22, which was found only in the Saudi corpus), the function of this bundle was as a device to refer to the results of the author's study for the purpose of evaluation (particularly Step 2: *indicating significance/advantage*). This observation clearly suggests that graduate students and novice writes need to be aware of these functions and to deal with lexical bundles with caution, as these bundles have different functions.

(3) ***The results of the*** *observations relevant to the present study pointed to the fact that the three teachers indeed focused on form in their respective classrooms.* (I8)

(4) ***The results of the*** *correlational analysis for each course presented in Table 3 show that only the strong negative correlation of -.848 between the grammar grade and the errors per 100 words ratio in Course 2 is statistically significant.*

(5) *This is consistent with* ***the results of the*** *regression model, where no aptitude component was found to make a significant contribution to learners' knowledge of the past progressive.* (I13)

(6) *An important conclusion that can be drawn from* ***the results of the*** *present study is that not only the instructional strategies of the RTAM can be effective, but also that they interact with the learner's cognitive style.* (S3)

***Discussion section.*** The Discussion section incorporates a total of 82 LBs: 48 bundles in the international corpus and 34 bundles in the Saudi corpus. Both corpora share five bundles: *the results of the/this, on the other hand, it is important to,* and *at the same time*. Move 17 (*Background information*) and Move 21 (*Summarizing the study*) did

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not include any lexical bundles. The greatest number of bundles was found in Move 20 (*Commenting on results*), followed by Move 18 (*Reporting results*).

*Structural classification.* It can be seen in Figure 11 that the international and the Saudi corpora were almost the same in terms of structural classification. As stated above, Move 20 incorporated the most bundles; almost all categories had bundles, except the adverbial clause fragment category in the international corpus and the pronoun/noun phrase + be (+ . . .) in the Saudi corpus. Also, it appeared that writers in the international data set employed more NP-based bundles (7 types and 19 tokens) compared with (3 types and 10 tokens) in the Saudi counterpart. In comparing the overlapping move (*Reporting results*) found in the Results and Discussion sections, it is clear that the number of lexical bundles associated was greater in the Results section than in the Discussion section. This indicates that bundles have several sometimes specific functions in academic prose (Biber et al., 1999; Hyland, 2008c).



Figure 11: Structural distribution of bundles in the Discussion sections in both corpora (tokens)
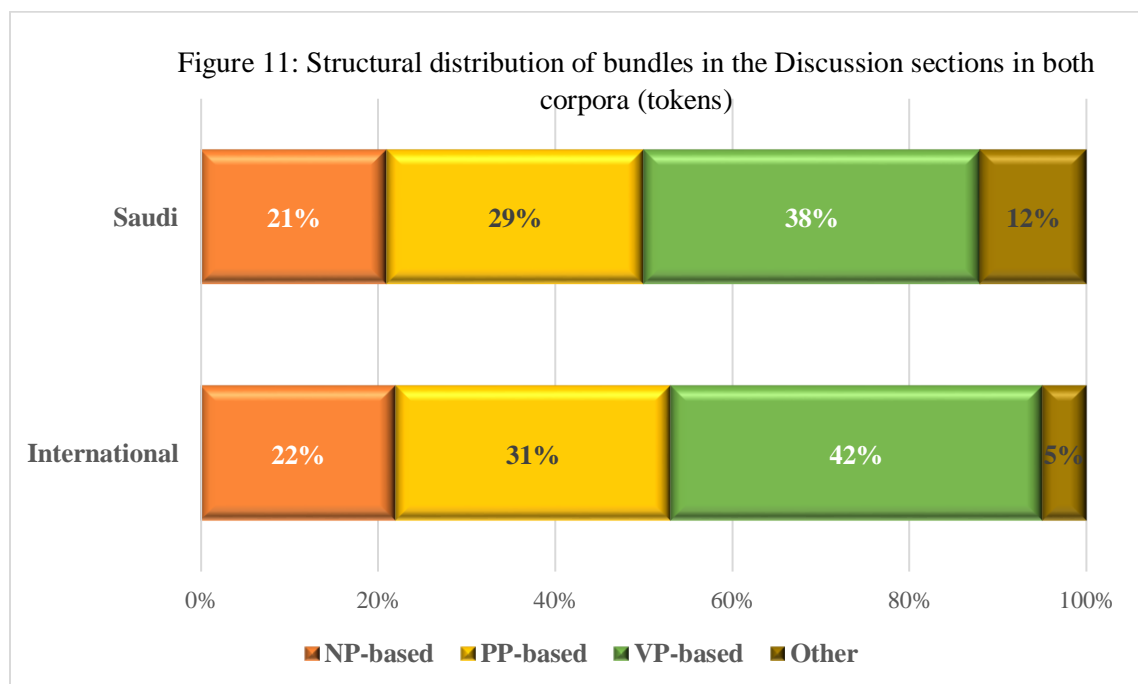
*Functional classification*. The functional distribution of bundles in the Discussion

section is shown in Figure 12. The results show that the international data set was

dominated by text-oriented strings (50%), while the Saudi data set presented a slightly

higher use of research-oriented (42%) than text-oriented (37%) strings. According to

Hyland (2008c), text-oriented bundles are used to provide an engaging way for

discussing literature, specifying limitations, and connecting ideas. These are the main

functions of a Discussion section, especially when the emphasis occurs in Move 20

(*Commenting on results*), Move 22 (*Evaluating the study*), and Move 23 (*Deductions

from the research*). In these moves, authors usually interpret and relate their results to a

literature review, evaluate the study by identifying strengths and weaknesses, and provide

pedagogical implications for readers.



Figure 12: Functional distribution of bundles in the Discussion sections in both corpora (tokens)
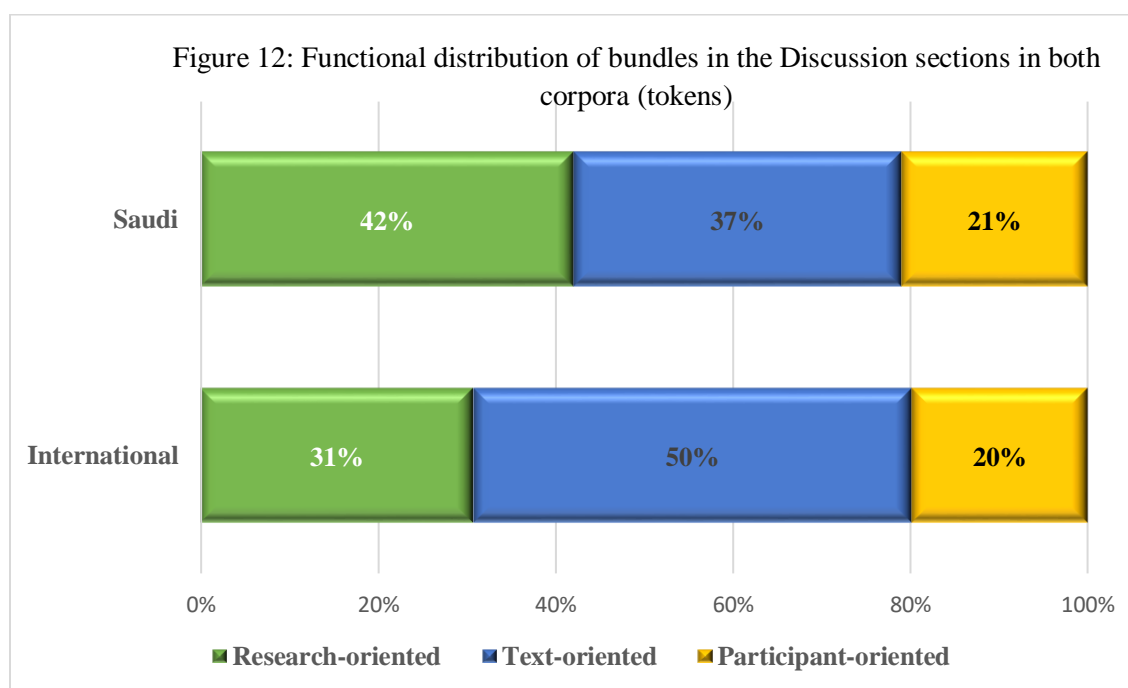
Surprisingly, the use of framing signal bundles is worth discussing. The purpose

of these bundles is to situate arguments by specifying limiting conditions. Based on the

analysis, the international corpus showed more use of framing argument bundles (5 types

and 12 tokens) in Move 20 (*Commenting on results*), whereas the Saudi corpus did not have any framing bundles. The same result was observed in Move 18 (*Reporting results*): 4 (8 tokens) and 1 (3 tokens) bundles in the international and the Saudi corpora, respectively. The majority of bundles were employed to highlight connections (e.g., *in terms of the*), to specify cases (e.g., *in the case of*), and to point to an element (e.g., *with respect to the*). The findings in the international corpus were in line with those of Hyland (2008c). However, the lack of use of framing signals in the Saudi corpus seemed to show Saudi writers' lack of awareness of the importance of these signals in academic writing. Below are examples of bundles from both corpora.

> (1) *Furthermore,* **all of the teachers** *frequently expressed confidence in their ability in teaching reading comprehension to Arab EFL learners* **as a result of** *their shared linguistic and cultural qualities with the students* **in terms of the** *reading culture.* (S12)

> (2) *Learners were at later stages of processing (i.e., lexicalizing)* **with respect to the** *past progressive.* (I13)

***Conclusion section.*** The Conclusion section encompassed a total of 23 LBs (3 in the international corpus, 20 in the Saudi corpus). It is apparent that the Saudi data set had far more bundles than the international counterpart, although the latter had more words than the former (6609 vs. 6105). A feasible explanation is that some authors preferred to employ variations of shorter bundles (e.g., three-word bundles) in concluding their RAs. Most of the bundles were located in Move 26 (*Deductions from the research*), while two bundles were found in Move 24 (*Summarizing the study*) in the Saudi corpus (i.e., *that there is a, the study showed that*).

*Structural classification.* As shown in Figure 13, both corpora relied on various expressions that do not fit neatly in Biber et al.'s classification (e.g., *future research could examine, conduct further studies concerning,* or *should believe in the*). This indicates that four-word lexical bundles in the Conclusion section seemed to be limited due to the fact that this section is relatively short; the average being 440 and 407 words in the international and the Saudi sets of data, respectively. VP-based bundles were also used in both corpora, as in *are recommended to do the, that there is a,* and *to do the following*.



Figure 13: Structural distribution of bundles in the Conclusion sections in both corpora (tokens)
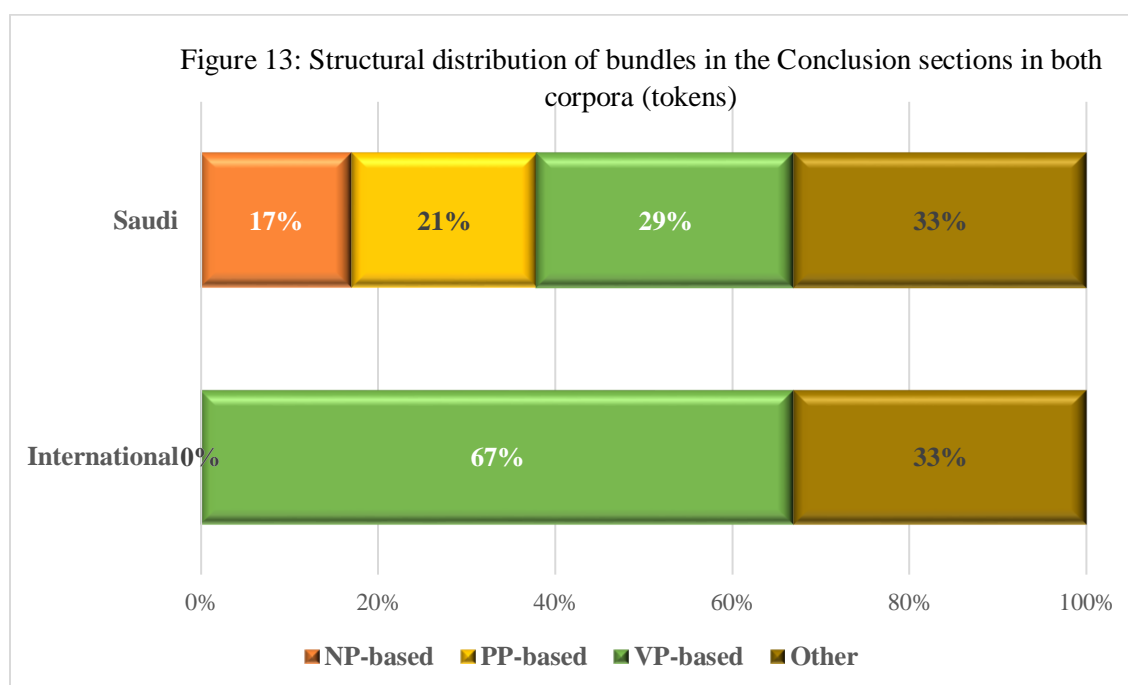
*Functional classification.* Figure 14 shows the functional distribution of bundles in both data sets. It can be seen that participants-oriented is dominant in both corpora. This can be attributed to the nature of the Conclusion section: Writers usually engage with reader to provide take-away knowledge in the sense of pedagogical implications and recommendations for future studies. Such engagement bundles are *future research could examine, carry out further research, should try to be,* and *in their knowledge of*. The

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following examples incorporate engagement bundles. This function is an encouragement for researchers and readers to conduct further research studies.

(1) ***Future research could examine*** *multiple mediating factors that help explain dynamics of peer interaction in online writing environments, such as tasks, goals, agency, emotion, language proficiency, and technology use.* (I7)

(2) ***In light of the*** *study's findings, EFL instructors* ***are recommended to do*** *the following.* (S1)

Figure 14: Functional distribution of bundles in the Conclusion sections in both corpora (tokens)

| | Research-oriented | Text-oriented | Participant-oriented |
|---|---|---|---|
| Saudi | 29% | 21% | 50% |
| International | 33% | 0% | 67% |
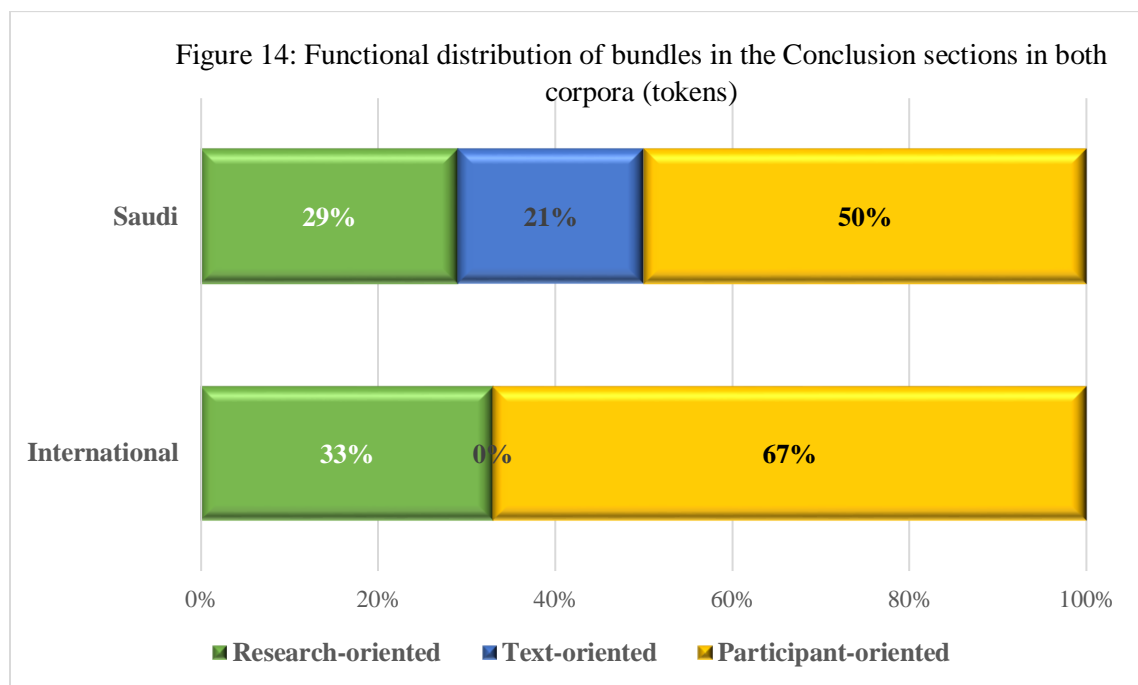
**Summary of the Chapter**

In sum, the present chapter has discussed the findings of the study by analyzing moves and lexical bundles in light of the research questions and in relation to findings from previous research studies. The first part of the chapter discussed the similarities and discrepancies between the Saudi and the international corpora in terms of move frequency, move structures, and move cyclicity. Overall, both corpora shared similar rhetorical structure and showed similarities in adhering to the models used in the analysis,

with a few discrepancies found in both corpora. The second part of the chapter discussed the lexical bundles identified in both corpora that related to the occurrence of these bundles and their structural and functional classifications. In general, the results indicate that the Saudi set of data exhibited a wide range of lexical bundles compared with the international set of data, both in terms of the frequency and the structural and functional classifications of lexical bundles.

**CHAPTER 6**

**CONCLUSION**

The concluding chapter includes the summary of the findings regarding the move analyses of the five sections of research articles (IMRDC) and the identification of the lexical bundles in light of the growing awareness of English as lingua franca (ELF). The chapter, next, offers some pedagogical implications contributed by the study. Finally, a number of suggestions for further research in relation to genre analysis and teaching writing are provided in the last section.

**Summary of the findings**

The purpose of the study was to compare the rhetorical structure and lexical bundles of English-language research articles (Introduction-Methods-Results-Discussion-Conclusion (I-M-R-D-C)) sections published in the Saudi and the international journals in the field of applied linguistics. As the present study has pointed out several similarities and variations between the Saudi and the international corpora, these variations obviously account for the era of English as lingua franca (ELF). The ELF refers to "a new type of English, a hybrid language, a kind of 'pluralized English' that accommodates diverse speakers' needs, norms and values" (House, 2012, p. 173). Drawing on House's definition, it is clear then that the variations found in the present study between both corpora fall under the umbrella of ELF. Hyland (2004a) also asserts that being aware of these variations demonstrates a sense of genre knowledge. He warns, however, that "deviations are acceptable to the extent that they do not cancel out function or appropriateness" (p. 64). Therefore, the findings of the current study are considered

hybridization (Mauranen, 2007) of rhetorical structure and linguistic features, thereby contributing to the era of ELF.

The analysis of the rhetorical structure of the five sections I-M-R-D-C in research articles in the Saudi corpus has shown that the articles do not simply adopt all the rhetorical structures typical of the ones in the international corpus. Instead, the Saudi corpus seems to adapt some new rhetorical shapes. The authors in the Saudi corpus created new move patterns which display some textual complexity, showing different, hybrid ways of articulating moves in non-linear patterns especially in the Methods, Results, and Discussion sections. In this case, the authors expressed their own "hybrid voices" (Mauranen, 2007). These hybrid voices are new variations of English and unique to the authors in the Saudi corpus. Thus, the new hybrid rhetorical patterns identified in the present study are the result of processes of contact and evolution between different English variations; reshaping old forms into new forms that exhibit various English conventional patterns in innovative and creative ways (Lorés-Sanz, 2016).

The participation of multilingual researchers, mostly Saudi and Arabs in the present study, in both local and international academic communities provides massive benefits to global knowledge (Canagarajah, 1996; Hyland, 2015a; Liu, 2004). According to Hyland (2015a), "[g]lobalization offers greater opportunities for increased scholarly dialogue by broadening the corpus of academic literature, by providing new avenues for collaboration, and by opening new channels for reporting location-specific research" (p. 25). Therefore, multilingual researchers (e.g., Saudi and Arabs writers) share the responsibility of disseminating global knowledge. This can be achieved through collaboration between scholars in local and international discourse communities to pave

the way for much cooperative work in academia, which could result in new variations in terms of discoursal, rhetorical, and linguistic patterns in English (Lores-Sanz, 2016). Finally, I strongly echo Hyland's (2016) impulse relating to second language writing scholarship and practices: "we need to see L2 writing as embedded in wider social, institutional, and political contexts rather than as something which exists in isolation from them" (p. 66). The findings of the comparative analyses related to the rhetorical structure and lexical bundles are summarized in the following sections.

*Move analysis*. In general, the identified moves/steps in each corpus are relatively similar with noticeable differences to some extent in each section. The total number of moves in the international corpus is 22 moves, whereas there are 25 moves in the Saudi corpus. The Introduction, Discussion, and Conclusion sections are similar in both corpora, where all moves appear with certain frequency. However, the Methods and Results sections show a degree of differences in both corpora.

In the Introduction section, the three moves (i.e., Move 1 *Establishing a territory*, Move 2 *Establishing a niche*, and Move 3 *Presenting the Present Work*) occur in all research articles in both corpora (100%) and was therefore conventional. Only Move 2 – Step 2. (*Presenting positive justifications*) does not show up in the international corpus. At the steps level, both corpora are different in terms of employing Move 3 – Step 6 (*Stating the value of the present research*), where this step revealed frequent usage by authors in the Saudi corpus when compared to international peers. Here, this section showed perhaps some cultural nuances in the Saudi corpus; a number of authors avoided directly criticizing the work of others, and these authors employed various promotional aspects instead. The most preferred move structures in the Saudi corpus are M1-M3-M2-

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M3 and M1-M2-M3-M2, while this pattern M1-M2-M3-M2-M3 is favored in the international corpus. Both datasets share the most cyclical move: Move 3 followed by Move 2 and lastly Move 1.

As for the Methods section, four moves (i.e., M5: *Location* – M7: *Subject/Material* – M8: *Procedures* – M10: *Data analysis*) and three moves (i.e., M4: *Overview* – M7 – M8) are identified to be conventional in the international and the Saudi sets of data, respectively. In addition, Move 6 *Research Aims/ Questions/ Hypotheses* and Move 9 *Limitations* are omitted in the international corpus. An obvious distinction between both corpora was related to the weight given to this section by authors in the Saudi corpus; this section in the Saudi corpus was relatively shorter and less detailed than the ones in the international counterpart – especially in M10: *Data analysis*. The move pattern (M7-M5-M7-M8-M10) is the most frequent move structure found in the international Methods sections, while the Methods sections published in the Saudi corpus exhibit diverse move patterns. Lastly, a modified model is proposed as a result of the analysis of the Methods section. That is, a new move called *'Describing the instruments of the study'* is found to occurring frequently in both corpora. Also, Location and Subjects usually happen together in one or two sentences, therefore, they are considered as one move called *Subjects/Location*.

The analysis of the Results section revealed three conventional moves (i.e., M11: *Preparatory information* – M12: *Reporting results* – M13: *Commenting on results*) with one omitted (i.e., Move 16—*Deductions from the research*) in both corpora. Furthermore, Move 15 (*Evaluating the study*) is omitted in the international dataset. In addition, the Saudi corpus shows more cyclical moves than the International counterpart, especially in

M11. In the Results and the Discussion sections, the Saudi corpus showed a little use of self-mention feature compared with the international corpus, suggesting cross-cultural variations and perceptions mirrored in other studies. That is, some authors in the Saudi corpus perhaps perceived that research articles require a more formal style by employing the passive and/or self-referring expressions (Alharbi & Swales, 2011). Lastly, only two move patterns (i.e., M11-M12-M13-M12-M13-M12-M13-M12 and M12-M13-M12-M13-M12-M13-M12) are identified in the international dataset. On the other hand, the Saudi dataset produces varieties of move structure. The sub-pattern M12-M13 is found to be the most highly cyclical in both sets of data.

Overall, all moves/steps of the Discussion sections appear in both corpora. Based on the analysis, two conventional moves are identified in the international dataset (i.e., Move 18—*Reporting results* and Move 20—*Commenting on results*) compared to only one conventional move (M20) in the Saudi counterpart. Although this section showed higher degree of similarities between both corpora, a linguistics feature, hedges, was used more in the international journals than in the Saudi journals. The frequency of cyclical moves found in both sets of data indicates that the international corpus exhibits more cyclical moves than the Saudi counterpart. The most cyclical move in the Discussion section in both corpora is M20 (*Commenting on results*). Furthermore, both sets of data produced various move structures, with none of these structures generating a frequent pattern. The analysis of move pattern reveals highly cyclical sub-patterns. That is, the patterns M18-M20 and M20-M18 are extremely cyclical, where they frequently occur between almost every sub-pattern.

In the Conclusion section, the analysis reveals that Move 26 (*Deductions from the research*) is conventional in both corpora. Comparatively, Move 24 (*summarizing the study*) and Move 25 (*Evaluating the Study*) are conventional in the international and the Saudi sets of data, respectively. Notably, however, some writers in both corpora, mostly in the Saudi corpus, seemed hesitant to mention limitations in their studies. This hesitation could be attributed to some cultural perceptions about the term *limitations*, which may be understood as a self-criticism. Move 26 is the most cyclical move in both corpora, where Step 1 (*Recommending further research*) is highly used by authors in the Saudi corpus compared to the international counterpart. Moreover, four move structures are identified in the datasets, in which two move patterns are shared by both corpora (i.e., M24-M25-M26 and M24-M26), and the other two found only in the Saudi dataset (i.e., M26-M25-M26 and M26). Lastly, the most highly cyclical sub-pattern is M25-M26, which occurs in the majority of the move structures found in the corpora. To conclude, based on the analysis of the 30 English applied linguistics research articles from the Saudi and the international journals, the rhetorical moves and their steps identified in the present study are presented in Table 44.

Table 44: Moves/Steps of the RAs in the Two Corpora

| Sections | Moves/Steps | |
|---|---|---|
| | **Saudi Corpus** | **International corpus** |
| Introduction | **Move 1— Establishing a territory** (citations required) ** | **Move 1— Establishing a territory** (citations required) ** |
| | Step 1.  Topic generalization of increasing specificity** | Step 1.  Topic generalization of increasing specificity ** |
| | **Move 2— Establishing a niche** (citations possible) ** | **Move 2— Establishing a niche** (citations possible) ** |
| | Step 1.A.  Indicating a gap**      OR | Step 1.A.  Indicating a gap **      OR |
| | Step 1.B.  Adding to what is known** | Step 1.B.  Adding to what is known** |
| | Step 2. Presenting positive justifications* | **Move 3 — Presenting the Present Work** (citations possible) ** |

| | | |
|---|---|---|
| | **Move 3 — Presenting the Present Work** (citations possible) ** <br> Step 1. Announcing present research descriptively and/or purposively** <br> Step 2. Presenting RQs or hypotheses** <br> Step 3. Definitional clarifications** <br> Step 4. Summarizing methods* <br> Step 5. Announcing principal outcomes* <br> Step 6. Stating the value of the present research** <br> Step 7. Outlining the structure of the paper* | Step 1. Announcing present research descriptively and/or purposively** <br> Step 2. Presenting RQs or hypotheses** <br> Step 3. Definitional clarifications* <br> Step 4. Summarizing methods* <br> Step 5. Announcing principal outcomes* <br> Step 6. Stating the value of the *present research <br> Step 7. Outlining the structure of the paper* |
| **Methods** | **Move 4— Overview ** <br> **Move 5— Research Aims/ Questions/ Hypotheses *** <br> **Move 6— Subject/Location ** <br> **Move 7— Describing Materials/ Instruments ** <br> **Move 8— Procedures ** <br> **Move 9— Limitations *** <br> **Move 10— Data Analysis *** | **Move 4— Overview *** <br> **Move 5— Subject/Location ** <br> **Move 6—Describing Materials/ Instruments** <br> **Move 7— Procedures ** <br> **Move 8— Data Analysis** |
| **Results** | **Move 11—Preparatory information** <br> **Move 12—Reporting results** <br> **Move 13—Commenting on results** <br> Step 1: Interpreting results ** <br> Step 2: Comparing results with literature* <br> Step 3: Evaluating results* <br> Step 4: Accounting for results* <br> **Move 14—Summarizing results*** <br> **Move 15—Evaluating the study*** <br> Step 1: Indicating limitations* <br> Step 2: Indicating significance/ advantage* | **Move 9—Preparatory information** <br> **Move 10—Reporting results** <br> **Move 11—Commenting on results** <br> Step 1: Interpreting results ** <br> Step 2: Comparing results with literature* <br> Step 3: Accounting for results* <br> **Move 12—Summarizing results*** |
| **Discussion** | **Move 17—Background information*** <br> **Move 18—Reporting results*** <br> **Move 19—Summarizing results*** <br> **Move 20—Commenting on results** <br> Step 1: Interpreting results ** <br> Step 2: Comparing results with literature ** <br> Step 3: Accounting for results ** <br> Step 4: Evaluating results* <br> **Move 21—Summarizing the study*** <br> **Move 22—Evaluating the study*** <br> Step 1: Indicating limitations * | **Move 13—Background information*** <br> **Move 14—Reporting results** <br> **Move 15—Summarizing results*** <br> **Move 16—Commenting on results** <br> Step 1: Interpreting results ** <br> Step 2: Comparing results with literature ** <br> Step 3: Accounting for results ** <br> Step 4: Evaluating results* <br> **Move 17—Summarizing the study*** <br> **Move 18—Evaluating the study*** <br> Step 1: Indicating limitations * |

| | | |
|---|---|---|
| | Step 2: Indicating significance/ advantage * | Step 2: Indicating significance/ advantage * |
| | Step 3: Evaluating methodology* | Step 3: Evaluating methodology* |
| | **Move 23—Deductions from the research\*** | **Move 19—Deductions from the research\*** |
| | Step 1: Making suggestions * | Step 1: Making suggestions * |
| | Step 2: Recommending further research * | Step 2: Recommending further research * |
| | Step 3: Drawing pedagogic implication* | Step 3: Drawing pedagogic implication* |
| **Conclusion** | **Move 24—Summarizing the study\*\*** | **Move 20—Summarizing the study\*\*** |
| | **Move 25—Evaluating the Study\*\*** | **Move 21—Evaluating the Study\*** |
| | Step 1: Indicating significance/ advantage * | Step 1: Indicating significance/ advantage * |
| | Step 2: Indicating limitations * | Step 2: Indicating limitations * |
| | Step 3: Evaluating methodology* | Step 3: Evaluating methodology* |
| | **Move 26—Deductions from the research\*\*** | **Move 22—Deductions from the research\*\*** |
| | Step 1: Recommending further research\*\* | Step 1: Recommending further research* |
| | Step 2: Drawing pedagogic implication\*\* | Step 2: Drawing pedagogic implication\*\* |

**\*\* = conventional, \* = optional**

*Lexical bundles*. As mentioned in Chapter Three, the 4-word length of the bundles is favored in the present study. Also, the frequency cut-off point of the lexical bundles has to appear in at least two RAs in each corpus to avoid the idiosyncrasies of individual writers. In light of these criteria, the analysis of the bundles produces a total of 350 bundles in both corpora, with a greater number of bundles found in the Saudi dataset 205 types (597 tokens) compared to the international counterpart with 145 types (358 tokens). The following sections summarize the lexical bundles found in each section and their structural and functional classifications.

In the Introduction section, the lexical bundles appear in all three moves; 95 bundles (289 tokens) are found in the Saudi corpus, and 43 bundles (103 tokens) are found in the international counterpart. In detail, the analysis of Move 1 (*Establishing a territory*) reveals six lexical bundles in the Saudi set of data compared to five in the international, in which both corpora have two bundles in common (e.g., *one of the most –*

*On the other hand*). Furthermore, most of the identified bundles are located in Move 2 (*Establishing a niche*), where 31 lexical bundles are in the international corpus, while 73 LBs are found in the Saudi counterpart. The third move (*Presenting the Present Work*) includes seven and 30 LBs in the international and the Saudi corpora, respectively. In terms of structural classification, the two corpora display similar proportions of three structural categories: PP-based, VP-based, and other. The authors in the Saudi corpus, however, employ twice as many NP-based LBs as their peers in the international corpus (17%). As for functional classification, research-oriented and text-oriented categories are greatly employed by authors in the Saudi corpus, while half of the LBs falls under text-oriented category in the international corpus. However, the use of participant-oriented bundles (i.e., stance and engagement features) was far greater in the international corpus. These bundles are highly recommended in scholarly journals, which avoiding these bundles could affect the authorial voice of the authors in explicitly evaluating their work and/or their arguments.

Concerning the Methods section, the number of bundles in the international corpus is 28, whereas 18 LBs are in the Saudi. Move 6 (*Research Aims/ Questions/ Hypotheses*) and Move 9 (*Limitations*) do not have any LBs in either corpora. The international and the Saudi datasets share three lexical bundles (i.e., *the purpose of the*, *they were asked to*, *in the present study*). In Move 4 (*Overview*), four LBs are extracted from only the Saudi corpus, whereas Move 5 (*Location*) has only one bundle in the international corpus. Furthermore, the majority of LBs in the Methods sections in both corpora are found in Move 7 (*Subjects/Materials*); 13 LBs are identified in the international corpus compared to the 10 LBs in the Saudi. In addition, Move 8

(*Procedure*) encompasses eight and two LBs in the international and the Saudi datasets, respectively. Lastly, Move 10 (*Data Analysis*) includes 10 LBs in the international corpus compared to one LB in the Saudi counterpart. In regards to structural features of bundles, noun and prepositional phrases were predominantly employed in the Methods sections published locally in Saudi and internationally due to the high informational focus of these bundles (total of 48% and 71% of the bundle tokens, respectively). Functionally speaking, both corpora displayed some level of similarity with only one apparent difference. That is, the moderate use of participant-oriented features in the international corpus, whereas these features are omitted in the Saudi counterpart.

The Results section includes a total of 61 bundles extracted from both corpora. The Saudi set of data outnumbers the international with 38 bundles and 23 bundles, respectively. The analysis shows that both corpora share four bundles in Move 12 (*Reporting results*), which has the majority of bundles in the Results section (i.e., *statistically significant difference between, in each of the, the majority of the, the results of the*). Simply put, M11(*Preparatory information*), M13 (*Commenting on results*), M14 (*Summarizing results*), and M15 (*Evaluating the study*) exhibit the fewest number of bundles in both corpora, whereas M16 (*Deductions from the research*) does not include any bundles. Both sets of data share similar distribution across the four categories in terms of the structural taxonomy of lexical bundles. It is also noticed that a long bundle is extracted from Move 14 (i.e., *it is clear from the findings of the study that*) in the Saudi corpus. Similar to the structural classification, the Saudi and the international corpora have a similar functional classification. Both corpora incorporate the Resultative signal (*The results of the*), in which writers in the Saudi corpus use more than compared to their

international peers; its token is 11 in the Saudi and three in the international Result sections.

The Discussion section shows 48 LBs in the international corpus and 34 LBs in the Saudi corpus. Both corpora share five bundles: *the results of the/this, on the other hand, it is important to, at the same time*. The lexical bundles are omitted in Move 17 (*Background information*) and Move 21 (*Summarizing the study*) in both corpora. Move 20 (*Commenting on results*) has the majority of bundles, of which 30 LBs are found in the International corpus, compared to 23 LBs in the Saudi. Followed by, Move 18 (*Reporting results*) has 12 bundles and 6 bundles in the international and the Saudi datasets, respectively. Bundles such as *in the present study, a significant difference in, in terms of the, the results of the, it is important to, in the present study,* and *this study suggests that* are the most frequently occurring bundles in the Discussion section. Move 22 (*Evaluating the study*) and Move 23 (*Deductions from the research*) include three LBs in each move in the international dataset compared to one move in the Saudi counterpart. Lastly, Move 19 (*Summarizing results*) shows only one LB (i.e., *the finding of the*) in the Saudi corpus. The international and the Saudi corpora share almost similar structural classification, where M20 has bundles in most of the categories. In terms of functional taxonomy, the international dataset is dominated by text-oriented strings (50%), while the Saudi dataset presents a slightly higher use of research-oriented (42%) than text-oriented. It is noteworthy that framing argument bundles were used far greater in the international corpus than the Saudi, indicating the importance and significance of these bundles in the Discussion section.

In the Conclusion section, the Saudi corpus exhibits far more bundles than the international counterpart, where 20 bundles and 3 bundles are identified in the corpora, respectively. Most of the bundles are located in Move 26 (*Deductions from the research*), while two bundles are found in Move 24 (*Summarizing the study*) in the Saudi corpus (i.e., *that there is a, the study showed that*). Move 25 does not have any lexical bundles. Concerning structural classification, both corpora rely on various expressions that do not fit neatly in Biber et al.'s classification (e.g., *Future research could examine, conduct further studies concerning, should believe in the*). As for functional classification, the participants-oriented feature is dominated in both corpora, followed by the research-oriented. Therefore, participant-oriented bundles (i.e., stance and engagement) are recommended in this section to provide take-away knowledge in the sense of pedagogical implications and recommendations for future studies.

**Pedagogical implications of the study**

The analyses of the rhetorical structure and the lexical bundles in the present study suggest various pedagogical implications for the teaching of EAP (English for Academic Purposes) to help students, especially graduate students, novice writers, and non-native English writers in their academic writing.

Genre analysis has become one of the most influential approaches to the teaching and learning of language for academic or specific purposes (Bhatia, 1997; Dobakhti, 2011; Hyland, 2004b). Therefore, students, as well as teachers, need to be aware of requisite academic writing skills and approaches. In other words, learners are required to be familiar with the norms and conventions of their discourse community to establish the importance of their research and to show that their studies are worthy of attention.

Eventually, the prior knowledge of genre conventions would make it easier for students to produce acceptable structures when they write a research paper. Thus, genre tasks, perhaps, are considered significant for both the learning and teaching of writing for both students and teachers.

The analyses of rhetorical structure and linguistic features of research articles are beneficial for international graduate students in various ways. For instance, the comparative analysis in the present study appear to provide insights into how English RAs published in the Saudi journals are similar or different from those published in the international journals. Such comparisons would help students be aware of local norms and practices in the two contexts within the field of applied linguistics, regardless of the authors' nationality as it is beyond the scope of the study. Furthermore, learners should be exposed to a variety of academic genres to learn such rhetorical variations, not only across genres but also across academic disciplines based on the students' needs. The role of genre instructors relies on guiding students to make an appropriate choice of rhetorical or linguistic features that they intend to learn and analyze.

As for formulaic language, the list of lexical bundles identified in the present study would benefit ESP/EAP practitioners and course designers. It is important, however, to deal with these bundles with caution, as bundles occur and behave in dissimilar ways in different disciplinary environments (Hyland, 2008b). The structural and functional classifications of the lexical bundles can serve as the basis for production tasks (e.g., Familiarization with form and function) designed to foster the retrieval and use of specific types of bundles to perform specific rhetorical functions (Hyland, 2008b; Mbodj-Diop, 2016; Neely & Cortes, 2009). These tasks, and others, with exposure to

large numbers of lexical bundles frequently employed in academic writing would help learners to write effectively and professionally.

*A suggested syllabus.* Given these implications, the ultimate aim of the present study is to increase awareness of the importance of genre knowledge and linguistic features among novice and graduate student writers. Therefore, the findings of this study could be beneficial in designing an effective syllabus for academic writing purposes. As a matter of fact, any course design begins with what the students know and preparing information about their current proficiencies (i.e., a *present situation analysis*), what they are able and interesting in learning (i.e., a *target situation analysis*), and what the course needs in terms of teachers, methods, materials, and facilities (i.e., a *means analysis*) (Dudley-Evans & John, 1998; Halliday, 1994; Hyland, 2007). The present study suggests a syllabus for teaching academic writing as a pedagogical implication (see Appendix F), which is recommended for future application and evaluation. The syllabus incorporates the findings of both approaches—genre-based approach and corpus linguistic approach—employed in the study. The target audience of the proposed syllabus are international graduate students who are assumed to have advanced writing skills. However, the targeted audience needs more techniques and information at the genre level, as well as lexico-grammatical and phraseological levels in order to help them write a research paper that could be accepted for publication. The syllabus is designed for a period of one semester (16 weeks) with weekly 3-hour seminars.

The primary objective of the course is to allow students to write an acceptable research paper by discovering organizational conventions and linguistic patterns frequently used by published authors of research articles in their disciplines. To do so, the

process involves analyzing a few research articles (e.g., 5 RAs as employed in Cheng's, 2007, study) to identify rhetorical structure (i.e., moves and steps) found in each section (i.e., IMRDC). This process provides learners with opportunities to draw generalizations on genre and notice recurrent linguistic features that learners could eventually transfer to their own writing (Cortes, 2014; Tribble, 2002). Also, the course introduces several corpus linguistic tools and computer software such as concordances, to make learners aware of the procedures of identifying linguistic features available in research articles across disciplines. Lastly, a list of the most common lexical bundles, with their functions, would be provided as guidelines for language learners to employ in their writing..

In addition, the proposed syllabus takes into consideration issues relating to academic writing across various cultures and contexts. While academic writing across cultures includes a similar mixture of text types and genres such as research articles, variations do exist in terms of writing conventions and linguistic features produced by academic writers. Since scholars who publish in a second language represent a majority (Hyland, 2016), graduate students and novice writers need to cultivate a more in-depth understanding and awareness of cultural and contextual differences in academic writing and scholarly practices. For instance, authorial agency aspects by no means play significant roles in high-stake journals. These aspects are incorporated in the proposed syllabus.

The principal tenets of the proposed syllabus are obtained from the essences of ESP genre-based writing instruction (Bhatia, 1993; Flowerdew, 2005; Hyland, 2007; Lee & Swales, 2006; Swales, 1990, 2004; Swales & Feak, 2004). That is to say, the course is divided into two main sections. The first section is theoretical, which aims to establish a

solid foundation for genre knowledge and corpus linguistic approaches, by raising the students' awareness of the generic rhetorical variations of genre (e.g., move/steps in research articles, the roles of writer, reader, and purpose in genre production) and the genres' linguistic features (e.g., lexical bundles, tenses, sentence structure). The second section is an application of genre analysis and corpus linguistics, where students collect RAs samples, in their own disciplines in order to engage in exploring and analyzing each section of these articles (IMRDC) collaboratively with the instructor and their peers. Then the students independently write their own research paper based on what they have analyzed and learned. Most of the activities are obtained from the assigned readings in the course. The required books are carefully selected to serve the purpose of the course, and have been recommended by several experts, practitioners, and book reviewers for teaching such courses across disciplines (Alamri, 2017; Hyon, 2008; Rouzer, 2007).

As far as to how to assessing learning, Hyland (2007) advised using a portfolio as an assessment approach that is well-suited to teaching genre-based writing. The portfolios "not only represent multiple measures of a student's writing ability, but also help students to understand more about the genres they have studied" (Hyland, 2007, p. 162). In addition, Hamp-Lyons and Condon (2000) argue that multi-genre portfolios allow students to observe similarities and differences among genres, as well as consider their writing and the criteria employed for judging the writing of other students (Hyland, 2007). The multi-genre portfolios include student-collected RAs and book review samples for the textual and rhetorical analysis, reflection on the analysis, and students' multiple drafts. At the end of the course, students are required to submit a draft of a

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publishable paper developed in light of the genre-based approach. Students are expected to identify audience and the targeted journal(s) where they are planning to submit.

**Suggestions for further research**

The current study provides useful information concerning the rhetorical moves and lexical bundles employed in English RAs in the field of applied linguistics published in two different contexts. Several suggestions derived from the present investigation need to be considered in future studies.

First, the present study executed very comprehensive procedures to identify all journals regarded as a target for Saudi researchers in social science, especially in the field of applied linguistics (see Chapter 3 for more details). These procedures were motivated by the lack of information about the number of local Saudi journals specialized in English applied linguistics. Thus, only 13 available journals were identified for Saudi and non-Saudi writers to publish their articles locally. These journals publish articles in the Arabic and English languages in different disciplines of social sciences (Islamic Studies, History, and English and Literature) because these journals are published by Saudi universities . Therefore, the present study suggests establishing a new scientific peer-reviewed journal specializing in applied linguistics. The vision and scope of the proposed journal need to conform to the definition of applied linguistics and the problems that the field encounters (i.e., research into language with relevance to real-world problems). Moreover, the proposed journal needs to be independently sponsored and published by a well-known established publisher. The proposed journal would help Saudi writers and international writers share their knowledge and publications in the field of applied linguistics.

Secondly, the size of the corpus in the present study was 30 research articles (15 from each corpus). Future research is needed to expand the size of the corpus in order to increase its representativeness. Although specialized corpora are favored over large corpora, the latter would benefit second language writers in several ways. For instance, analyzing large corpora would produce a wide variety of lexical bundles. Thus, learners would have various choices in terms of bundles to use in academic writing. The size of the corpus could include articles from journals published in the Arab countries, which may show some resemblances and variations—if existed—produced by authors in that journals.

In fact, the findings of the study reveal similarities and differences between two corpora. Indeed, a future investigation is recommended to interview the writers regarding these findings. The interviewers could ask questions about authors' perceptions on the presence or absence of certain rhetorical and lexical bundles, as well as to inquire about some aspects that were beyond the scope of the study, such as educational background, writing and publishing experience, native speaker involvement, and culture. These interviews might provide an explanation on the experiences of authors, who publish their articles locally, to investigate whether they had attempted to publish their articles in prestigious journals. It is hoped that these interviews could enhance the understanding of the influence of such factors on the writing of academic texts and their affect on discourse patterns.

In addition, although several researchers (e.g., Ädel & Erman, 2012; Bal, 2010; Chen & Baker, 2010) have illuminated the potential cross-linguistic influence on lexical bundles, and to my knowledge, there have been no contrastive analyses carried out

through a three-way comparison on the lexical bundles used by L1 English, L2 English and L1 Arabic researchers in research articles genre. Among the dearth of studies, L1 influence was observed in a few languages, such as French (Paquot, 2013), Turkish (Güngö, 2016), Hebrew (Laufer & Waldman, 2011), and Spanish (Pérez-Llantada, 2014). Therefore, it would be very interesting to investigate the influence of Arabic language in employing lexical bundles when writing an English research article.

Lastly, further work is required to compare the IMRDC sections of the articles, in both corpora, in terms of interactive and interactional metadiscourse. In addition, a comparison between the Saudi and the international datasets by the use of multidimensional analysis would be interesting. Multidimensional (MD) "uses multivariate statistical techniques to investigate the quantitative distribution of linguistic features across texts and text varieties, as well as to analyze linguistic co-occurrence by identifying underlying dimensions of variation through a statistical factor analysis" (Biber, Conrad, Reppen, Byrd, & Helt, 2002, p. 13). Furthermore, the five dimensions in MD analysis have both linguistic and functional interpretations. In other words, multidimensional analysis is an effective tool that provides a more comprehensive linguistic description of texts and text varieties in terms of linguistic differences among the texts (Kanoksilapatham, 2003).

**Concluding remarks**

The principle aim of the current study was to investigate the rhetorical structure and the lexical bundles in the complete research articles sections (i.e., IMRDC) in English journals of applied linguistics published locally in Saudi Arabia and internationally. The major findings of the present study have revealed similarities and

discrepancies between both sets of data, suggesting that cross-cultural variances do exist in academic writing. A quantitative corpus data and a qualitative rhetorical analysis could contribute to the enhancement of academic writing in the fields of English for Academic Purposes (EAP) and English for Specific Purposes (ESP). Finally, I hope that the present study has added to the knowledge of genre conventions and formulaic language in academic writing and that these findings improve our understanding of RAs.

# APPENDICES

## APPENDIX (A)

## THE CODING SCHEME USED IN THE PRESENT STUDY

| Introduction section | |
|---|---|
| **Moves** | Steps |
| **Move 1— *Establishing a territory* (citations required)** | Step 1.  Topic generalization of increasing specificity |
| **Move 2— *Establishing a niche* (citations possible** | Step 1.A.  Indicating a gap      OR<br>Step 1.B.  Adding to what is known<br>Step 2.     (optional) Presenting positive justifications |
| **Move 3 — *Presenting the Present Work* (citations possible)** | Step 1.   (obligatory) Announcing present research descriptively and/or purposively<br>Step 2.  (optional) Presenting RQs or hypotheses<br>Step 3.   (optional) Definitional clarifications<br>Step 4.   (optional) Summarizing methods<br>Step 5.   (PISF**) Announcing principal outcomes<br>Step 6.   (PISF) Stating the value of the present research<br>Step 7.   (PISF) Outlining the structure of the paper |

| Method section |
|---|
| **Move 4— *Overview*** |
| **Move 5— *Location*** |
| **Move 6— *Research Aims/ Questions/ Hypotheses*** |
| **Move 7— *Subjects/Materials*** |
| **Move 8— *Procedure*** |
| **Move 9— *Limitations*** |
| **Move 10— *Data Analysis*** |

| Results section | |
|---|---|
| **Move 11—*Preparatory information*** | |
| **Move 12—*Reporting results*** | |
| **Move 13—*Commenting on results*** | Step 1: Interpreting results<br>Step 2: Comparing results with literature<br>Step 3: Evaluating results<br>Step 4: Accounting for results |

| | |
|---|---|
| **Move 14—Summarizing results** | |
| **Move 15—*Evaluating the study*** | Step 1: Indicating limitations<br>Step 2: Indicating significance/ advantage |
| **Move 16—*Deductions from the research*** | Step 1: Recommending further research |

| | |
|---|---|
| **Discussion section** | |
| **Move 17—*Background information*** | |
| **Move 18—*Reporting results*** | |
| **Move 19—*Summarizing results*** | |
| **Move 20—*Commenting on results*** | Step 1: Interpreting results<br>Step 2: Comparing results with literature<br>Step 3: Accounting for results<br>Step 4: Evaluating results |
| **Move 21—*Summarizing the study*** | |
| **Move 22—*Evaluating the study*** | Step 1: Indicating limitations<br>Step 2: Indicating significance/advantage<br>Step 3: Evaluating methodology |
| **Move 23—*Deductions from the research*** | Step 1: Making suggestions<br>Step 2: Recommending further research<br>Step 3: Drawing pedagogic implication |

| | |
|---|---|
| **Conclusion section** | |
| **Move 24—*Summarizing the study*** | |
| **Move 25—*Evaluating the Study*** | Step 1: Indicating significance/advantage<br>Step 2: Indicating limitations<br>Step 3: Evaluating methodology |
| **Move 26—*Deductions from the research*** | Step 1: Recommending further research<br>Step 2: Drawing pedagogic implication |

## APPENDIX (B)

## LIST OF RESEARCH ARTICLES USED FOR THE ANALYSES

### 1. The International Corpus

I1 Mulder, K., & Hulstijn, J. H. (2011). Linguistic Skills of Adult Native Speakers, as a Function of Age and Level of Education. *Applied Linguistics*, *32*(5), 475–494.

I2 Lee Amuzie, G., & Spinner, P. (2013). Korean EFL Learners' Indefinite Article Use with Four Types of Abstract Nouns. *Applied Linguistics*, *34*(4), 415–434.

**\*I3** Gablasova, D. (2015). Learning technical words through L1 and L2: Completeness and accuracy of word meanings. *English for Specific Purposes*, *39*, 62–74.

**\*I4** Stapleton, P. (2012). Gauging the effectiveness of anti-plagiarism software: An empirical study of second language graduate writers. *Journal of English for Academic Purposes*, *11*(2), 125–133.

I5 Junqueira, L. (2013). A genre-based investigation of applied linguistics book reviews in English and Brazilian Portuguese. *Journal of English for Academic Purposes*, *12*(3), 203–213.

I6 Neumann, H. (2014). Teacher assessment of grammatical ability in second language academic writing: A case study. *Journal of Second Language Writing*, *24*, 83–107.

**\*I7**    Li, M., & Kim, D. (2016). One wiki, two groups: Dynamic interactions across ESL collaborative writing tasks. *Journal of Second Language Writing*, *31*, 25–42.

I8    Simard, D., & Jean, G. (2011). An exploration of l2 teachers' use of pedagogical interventions devised to draw L2 Learners' attention to form: Exploration of L2 teachers' use of pedagogical interventions. *Language Learning*, *61*(3), 759–785.

I9    Webb, S., Newton, J., & Chang, A. (2013). Incidental learning of collocation: incidental learning of collocation. *Language Learning*, *63*(1), 91–120.

I10    Golonka, E., Bowles, A., Silbert, N., Kramasz, D., Blake, C., & Buckwalter, T. (2015). The role of context and cognitive effort in vocabulary learning: A study of intermediate-level learners of Arabic. *The Modern Language Journal*, *99*(1), 19–39.

I11    Davis, J. M. (2016). Toward a capacity framework for useful student learning outcomes assessment in college foreign language programs. *The Modern Language Journal*, *100*(1), 377–399.

I12    Ortega-Llebaria, M., & Colantoni, L. (2014). L2 English intonation. *Studies in Second Language Acquisition*, *36*(2), 331–353.

I13    Yalçın, Ş., & Spada, N. (2016). Language aptitude and grammatical difficulty. *Studies in Second Language Acquisition*, *38*(2), 239–263.

I14    Buckingham, L. (2014). Building a career in English: Users of English as an additional language in academia in the Arabian Gulf. *TESOL Quarterly*, *48*(1), 6–33.

I15    Tum, D. O. (2015). Foreign Language Anxiety's Forgotten Study: The Case of the Anxious Preservice Teacher. *TESOL Quarterly*, *49*(4), 627–658.

**\* Articles coded for inter-coder reliability**


2.  **The Saudi Corpus**

S1    Bani Abdelrhman, O. N. M. (2013). The use of the whole language approach to sharpen EFL learners' writing skill at Al - Imam Muhammad Bin Saud Islamic University. *Journal of Humanities and Social Studies*, (30), 1–30.

S2    Alharbi, M. (2015). The effects of using the reading thinking activity model (rtam) on reading comprehension: a case study of the preparatory year students at IMISU, Saudi Arabia. *Journal of Humanities and Social Studies*, (35), 101–136.

S3    Maghrabi, R. O. (2013). Tongue twisters in English: A psycholinguistic investigation of the relationship between language production of Saudi ESL and verbal working memory. *Journal of King Abdulaziz University/ Arts amd Humanities*, *21*, 165–197.

**\*S4**   Alqurashi, F. (2015). The effect of peer response groups on EFL college writing students' perceived peer social support. *Scientific Journal of King Faisal University (Humanities and Management Sciences)*, *16*(1), 189–199.

S5    Abanomey, A. A. (2013). Do EFL Saudi learners perform differently with online reading? An exploratory study. *Journal of King Saud University - Languages and Translation*, *25*(1), 1–11.

**\*S6**    Abdellah, A. (2013). Training Saudi English majors in extensive reading to develop their standard-based reading skills. *Journal of King Saud University - Languages and Translation*, *25*(1), 13–20.

S7    Alshumaim, Y., & Alhassan, R. (2013). Current availability and use of ICT among secondary EFL teachers in Saudi Arabia: Possibilities and reality. *Journal of Educational Sciences/ King Saud University*, *25*(1), 225–238.

S8    Bamanger, E. M., & Gashan, A. K. (2015). The effect of planning time on the fluency, accuracy, and complexity of EFL learners' oral production. *Journal of Educational Sciences/ King Saud University*, *27*(1), 161–175.

S9    Al-Seghayer, K. (2014). The impact of gender and reading proficiency level on online reading strategies employed by EFL learners. *Journal of Educational Sciences/ King Saud University*, *26*(2), 493–509.

S10    Shatnawi, M. M. K. (2016). The effectiveness of the inductive versus deductive methods in teaching passive voice to first secondary students in Al-Ahsa. *Journal of the North for Humanities*, *1*(2), 201–212.

S11    Alrajhi, A. M., Abdelrahman, O. N. M. B., & Al Homoud, F. A. (2014). The effect of using drama on improving preparatory year students' oral proficiency at Al-Imam Muhammad Ibn Saud Islamic University. *Qassim University Journal of Arabic And Human Sciences*, *7*(1), 25–50.

S12    Al-Rojaie, Y. I. (2012). Saudi EFL reading teachers' pedagogical beliefs and practices: A qualitative case study. *Qassim University Journal of Arabic and Human Sciences*, *5*(1), 1–19.

**\*S13**    Al Fageeh, A. (2014). Effects of using wikis for developing Saudi EFL

students' reading and writing skills. *Umm Al-Qurma University Journal of*

*Languages and Literatures*, *14*, 9–37.

S14    Alrefaai, I. K., Rab, S. D. A., & Islam, M. S. (2013). The general study habits

of major EFL students in King Khalid University and their relationships

with GPA, gender and certain social factors. *Umm Al-Qura University*

*Journal of Languages and Literatures*, *10*, 9–63.

S15    Jahin, J. H., & Idrees, M. (2012). EFL major student teachers' writing

proficiency and attitudes towards learning English. *Umm Al-Qura*

*University Journal of Educational & Psychologic Sciences*, *4*(1), 10–72.

**\* Articles coded for inter-coder reliability**

# APPENDIX (C)

# LIST OF LEXICAL BUNDLES ASSOCIATED WITH EACH MOVE IN BOTH CORPORA

| | International corpus | Saudi corpus |
|---|---|---|
| **Move 1— Establishing a territory** | **on the other hand, one of the most**, this line of research, as one of the, it is well established that | **one of the most**, as well as the, at the same time, based on the assumption, is one of the, **on the other hand** |
| **Move 2— Establishing a niche** | little is known about, as a result of, **as well as the, in the case of,** the fact that the, to the effects of, **are likely to be, the results indicated that,** in the context of, in the present study, **on the other hand**, research has shown that, a limited number of, about the meaning of, and a lack of, as well as their, can be seen in, however very little is, **on the basis of, that the majority of,** that the number of, **that there is a, the effect of the, the extent to which,** the form of a, the meaning of a, the nature of the, there has been little, this line of research, were based on a, with the acquisition of, | **on the other hand**, the results of the, **the extent to which**, in the use of, significant differences between the, that there was no the results showed that, the study showed that, the use of the, **as well as the**, a wide range of, that the use of, a number of researchers, a number of studies, can be used to, significant difference between the, **that the majority of, that there is a,** the degree to which, the effectiveness of the, the researcher found that, a study in which, **the effect of the, the results indicated that,** the study consisted of, from a variety of, no significant differences between, **on the basis of**, the basis of the, the results of a, at the end of, have been conducted on, **in the case of**, on the effect of, this study aimed at, a handful of studies, about the use of, **are likely to be,** as a function of, as a tool to, as the design of, can be utilized in, differ widely from the, divided into two parts, from the current study, has been carried out, has been conducted on, in addition to the, in relation to their, in the field of, in the process of, in their use of, is devoted to the, is divided into two, is due to the, it was found that, that most of the, the beginning of the, the best knowledge of, the design of studies, the results show that, the study revealed that, there is a need, they were asked to, to a variety of, were divided into two, were exposed to the, when compared to the |
| **Move 3 — Presenting the Present Work** | the following research questions, on the other hand, the extent to which, intends to contribute to, the following research question, the study addressed the, **to shed light on** | the significance of the, aims at exploring the, in relation to the, the use of the, the effect of the, the effect of using, in the field of, **to shed light on the**, a wide range of, addressed the |

| | | |
|---|---|---|
| | | following research, answer the following questions, in favor of the, in the context of, in the process of, it is hoped that, on the effect of, over a period of time, the effects of the, the gap in the, the impact of the, the present study investigated, the purpose of the, the results of the, this study aims at, were exposed to the |
| **Move 4— Overview** | -- | for the purpose of, in the present study, the effectiveness of the, this study utilized a |
| **Move 5— Location** | the study was conducted in | -- |
| **Move 7— Subjects/Materials** | on the basis of, it was not possible, for each of the, a focus on the, a high degree of, a wide range of, can be found in, in addition to the, in order to explore, **the purpose of the**, the study was conducted, | to a sample of, **the purpose of the**, was developed by the, was taught by the, as shown in table, in the present study, on the other hand, one of the most, to a number of, |
| **Move 8— Procedures** | at the beginning of the, at the end of, in the current study, **the purpose of the**, **they were asked to,** were included in the, | students were asked to, **the purpose of the**, the study was conducted, **they were asked to,** |
| **Move 10— Data Analysis** | in the present study, the analysis of the, the meaning of the, as well as the, at the same time, can be seen in, in order to determine, in the case of, the reliability of the, with respect to the, | the number of errors |
| **Move 11—Preparatory information** | -- | at the beginning of the, in order to ensure |
| **Move 12—Reporting results** | the rest of the, in the same way, are presented in table, can be seen in, in relation to the, **statistically significant difference between,** was found in the, are reported in table, **in each of the,** in terms of their, it is important to, of the number of, one of the main, the following excerpts illustrate, **the majority of the**, the results for the, **the results of the,** there was a significant, was also reflected in, were observed in the, | **the results of the,** the mean scores of, as shown in table, are shown in table, that there is a, in favor of the, statistically significant difference at, on the other hand, it shows that the, **statistically significant difference between,** that there was a, **the majority of the**, in favour of the, as seen in table, the results of this, and in favor of, **in each of the**, in order to make, in terms of the, of the sample of, that the difference in, the main idea of, the mean score for, the meaning of the |
| **Move 13—Commenting on results** | on the other hand, did not result in, in the case of, | the mean scores of, in favour of the, to the effect of, be attributed to the, in the control group, in the experimental group, it also |

| | | supports the, supports the premise that, that there were no, the results of the, |
|---|---|---|
| **Move 14—Summarizing results** | -- | it is clear from |
| **Move 15—Evaluating the study** | -- | the main goal of, |
| **Move 18—Reporting results** | in the present study, as can be seen, in the case of, in the sense that, the case with the, the data show that, **the results of the**, the results revealed that, the results showed that, with respect to vocabulary, | a significant difference in, in terms of the, the results indicate that, a positive correlation between, the beginning of the, **the results of the**, |
| **Move 19—Summarizing results** | -- | the findings of the study, |
| **Move 20—Commenting on results** | **on the other hand, it is important to,** is in line with, in the present study, it should be noted, are in line with, it is possible that, the ease with which, the findings of the, this is consistent with, the findings of this, with respect to the, a higher number of, are likely to be, as well as to, **at the same time,** could be used to, did not appear to, does not seem to, in line with the, in terms of the, in the field of, of most of the, one possible explanation is that, that the nature of, the degree to which, the extent to which, the fact that the, the meaning of the, **the results of this**, to note that the, | the results of the, **on the other hand**, can be attributed to, with the findings of, by the fact that, could be attributed to, in favor of the, be due to the, a wide range of, as discussed in the, **at the same time**, can be explained by, due to the fact that, from the fact that, is consistent with the, **it is important to**, it was clear that, might be due to, on the part of, significant differences between the, significant improvement on the, study revealed that the, **the results of this**, to the fact that, with the results of, |
| **Move 22—Evaluating the study** | a starting point for, in the present study, on the other hand, with respect to the, | the results of the, |
| **Move 23—Deductions from the research** | the results of this, this study suggest that, to be the most, | as well as the, |
| **Move 24—Summarizing the study** | -- | that there is a, the study showed that, |
| **Move 26—Deductions from the research** | future research could examine, research has shown that, to better understand the, | in light of the, the findings of the, are recommended to do the, carry out further research, conduct further studies concerning, in the area of, in their knowledge of, is one of the, on the use of, research is needed to, should be conducted to, should believe in the, should try to be, the findings of this, the results of this, the |

usefulness of the, to determine the most, to do the following,

**Bold = bundle occurs in both corpora**

# APPENDIX (D)

Overview of the journals guidelines and the articles and their authors in the Saudi corpus

| Journals | Articles | Authors | | A Synopsis of the Journals' Guidelines |
| --- | --- | --- | --- | --- |
| | | **Names** | **University Affiliation** | |
| **KSU**<br>**(n=2)** | S5 | Abdulaziz Abanomey | King Saud University, Saudi Arabia (SA), (3)* | Papers must be presented in final page format, along with a magnetic disk containing the contribution executed on an IBM compatible PC using MS Word or any updated version of it. Pages are to be numbered consecutively and are to include all illustrative material, such as tables and figures, in their appropriate places in the text. If the author does not follow these guidelines, the paper is likely to be rejected or delayed.<br>Abstracts: Manuscripts require both Arabic and English abstracts, using not more than 200 words, in single column (12 cm wide), for each version. |
| | S6 | Antar Abdellah | Taibah University, SA (71-80)* | |
| **QU**<br>**(n=2)** | S11 | Ali Alrajhi, Omar Bani Abdelrahman, Faisal Al-Homoud | Al-Imam Muhammad Ibn Saud Islamic University, SA, (=35)* | - The author must provide an Arabic and an English abstract for his paper, each of which not exceeding 200 words.<br>- The paper must include the title of the paper, the author's name, his address, his title and his affiliation on the first page of the paper.<br>- Footnotes must be mentioned in their respective pages.<br>- References are to be mentioned in the main text in sequential numbers between square brackets according to the MLA style. |
| | S12 | Yousef Al-Rojaie | Qassim University, SA, (46)* | |
| **KSU-ES**<br>**(n=3)** | S7 | Yousif Alshumaimeri & Riyadh Alhassan | King Saud University, SA, (3)* | A Manuscript must not exceed **30** pages, including Arabic and English abstracts and references. A Manuscript must include Arabic and English abstracts, each of them must not exceed 200 words.<br>**Empirical Research**: Starts by an introduction that presents the background of the research, the need for it, and justifications for conducting it. Related studies should be integrated included in the introduction without allocating sub-titles. Then, present the problem followed by the objectives and questions or hypotheses. Afterwards, method that includes: population, sample, materials, and procedures. Data analysis should be included followed by the results and discussion including recommendations. References should be at the end of the manuscript according to the APA Style. |
| | S8 | Ebrahim Bamanger & Amani Gashan | King Saud University, SA, (3)* | |
| | S9 | Khalid Al-Seghayer | Al-Imam Mohammad Ibn Saud Islamic University, SA (=35)* | |
| **UQU**<br>**(n=3)** | S13 | Abdul al-Fageeh | King Khalid University, SA, (21)* | b) The manuscript should be double-spaced, written in Microsoft Word, using Times New Roman Font, size 16 on A4 paper-size. Manuscript length should not exceed **40** pages, including tables, figures and references. c) Tables and Figures should be presented on separate sheets, with their proper text position indicated in the original manuscript. d) Abstracts in both Arabic and English within 200 words each should be submitted. e) Author's name and affiliation should be written on a separate sheet along |
| | S14 | Ismail Alrefaai, SalahudDin AbdulRab, & Muhammad Saiful Islam | King Khalid University, SA, (21)* | |

| | | | |
|---|---|---|---|
| | S15 | Jamal Jahin & Mohammad Idrees | Taibah University, SA (71-80)* | with a brief CV. A signed consent from the author(s) that the manuscript has not been published or submitted to another publication. |
| **KAU (n=1)** | S3 | Reem Maghrabi, | King Abdulaziz University, SA, (4)* | Typescripts (TS) should be submitted using Microsoft Word 2003 or later, either in Arabic (Simplified Arabic) or in English (Times New Roman), double spaced, on only one side of A4 size paper. The width of lines is 12.5cm and the depth of pages is 19cm. The TS are numbered consecutively including tables and figures. The abstracts, footnotes, tables, captions and references should be submitted in separate sheets. Abstract: Not more than 200 words. Text should be divided into main sections, each with its own heading e.g. Introduction, Experimental, Results, Discussion, Conclusion, References. |
| **IMBS (n=2)** | S1 | Omar Bani Abdelrhman | Al-Imam Muhammad Bin Saud Islamic University, SA, (=35)* | Submissions must not exceed **35** pages (Size A4). - English submissions Times New Roman, 12-font size, with single line spacing. - A hard copy and soft copy must be submitted with an attached abstract in Arabic and English that does not exceed 200 words in size or one page in length. 1. Documentation and citation should follow the style of the American Psychological Association (APA). |
| | S2 | Majed Alharbi | King Khalid University, SA, (21)* | |
| **KFU (n=1)** | S4 | Fahad Alqurashi | Umm Al-Qura University, SA, (18)* | The manuscript should not exceed **30** pages. The abstract should not exceed 250 words. Introduction: It should briefly review previous work ordered from the oldest to the newest. It should end by a statement indicating what the current work will add to knowledge of the subject. Materials and methods: It should contain detailed information about the methodology, data collection, statistical analysis (if applicable). Result and discussion: This section could be presented in two separate parts if needed. It must present the findings of the work in forms of tables, figures, and / or wording. Such data should be interpreted using scientific evidences to reach a conclusion. |
| **NBU (n=1)** | S10 | Mwaffag Shatnawi | Al-Imam Muhammad Ibn Saud Islamic University, SA, (=35)* | Submissions must not exceed **45** pages of plain paper (A4). The research must have the following organization: Introduction: It should indicate the topic and aims of the research paper, and be consistent with its ideas, information and the established facts. The research problems(s) and importance of the literature review should be also introduced. Body: The research body includes all necessary and basic details of research approach, tools and methods. All stated information should be arranged according to priority. Findings and Discussion: Research findings should be clear and brief, and the significance of these findings should be elucidated without repetition. Conclusion: It is a brief summary of the research topic, findings, recommendations and suggestions. |
| * Based on the ("QS University Rankings: Arab Region," 2016) | | | | |

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Overview of the journals guidelines and the articles and their authors in the Saudi corpus

| Journals | Articles | Authors | | A Synopsis of the Journals' Guidelines |
|---|---|---|---|---|
| | | **Names** | **University Affiliation** | |
| **AL** **(n=2)** | I1 | Kimberley Mulder and Jan H. Hulstijn | University of Amsterdam, Netherlands | Manuscripts accepted for publication should not exceed 8,500 words including all material for publication in the print version of the article, except for the abstract, which should be no longer than 175 words. Reference lists should be in Oxford HumSoc style. |
| | I2 | Grace Lee Amuzie and Patti Spinner | Michigan State University, USA | |
| **SSLA** **(n=2)** | 112 | Marta Ortega-Llebaria and Laura Colantoni | University of Pittsburgh, USA University of Toronto, Canada | Maximum length is **11,000** words all-inclusive (i.e., abstract, text, tables, figures, references, notes, and appendices intended for publication must all fall within the **11,000** word limit). All SSLA submissions must conform to the requirements of the latest Publication Manual of the Amerdican Psychological Association. These requirements include formatting, headings, language use, presentation of data, citations, references, and all other aspects of manuscript preparation. |
| | I13 | Sebnem Yalçın Nina Spada | Boğaziçi University, Turkey University of Toronto, Canada | |
| **LL** **(n=2)** | I8 | Daphne´e Simard and Gladys Jean | Université du Québec à Montréal, Canada | Published papers are usually less than **10,000** words, including endnotes, references, tables, and figures. All manuscripts are to be accompanied by an abstract of about **150** words. All citations included in the list of references should include a unique DOI identifier (if available) and should be formatted according to the requirements of the APA style. |
| | I9 | Stuart Webb Jonathan Newton | Victoria University of Wellington, New Zealand | |
| | | Anna Chang | Hsing-Wu University, Taiwan | |
| **JSLW** **(n=2)** | I6 | Heike Neumann | McGill University, Canada | Manuscripts for full-length articles should be **7,500** to **10,000** words in length, including references, tables, and figures. |
| | I7 | Mimi Li and Deoksoon Kim | Georgia Southern University, USA University of South Florida, USA | A concise abstract is required (maximum length **200** words) Citations in the text should follow the referencing style used by the APA style. Article structure Subdivision of article Divide your article into clearly defined sections. Each subsection should be given a brief subheading. Each heading should appear on its own separate line. Introduction: State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results. |

| | | | | |
|---|---|---|---|---|
| | | | | Material and methods: Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described. <br> Results: Results should be clear and concise. <br> Discussion: This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature. <br> Conclusions: The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section. |
| **JEAP** <br> **(n=2)** | I4 | Paul Stapleton | Hong Kong Institute of Education, Hong Kong | Full Length Article submissions should not normally exceed **8,000** words excluding tables. |
| | I5 | Luciana Junqueira | Georgia State University, USA | A concise abstract is required (maximum length **200** words) <br> Citations in the text should follow the referencing style used by the APA style. There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions. |
| **TQ** <br> **(n=2)** | I14 | Louisa Buckingham | Bilkent University, Turkey | Full length articles typically present empirical research and analyze original data that the author has obtained using sound research methods. <br> Manuscripts should be **7,000-8,500** words including references, notes, and tables. <br> Abstract (**200** words) <br> All submissions to TQ should conform to the requirements of the APA style |
| | I15 | Danyal Oztas Tum | Middle East Technical University, Cyprus | |
| **MLJ** <br> **(n=2)** | I10 | Ewa Golonka <br> Debra Kramasz | University of Maryland, USA | The manuscript should include a **200** word abstract. <br> **8,000 – 10,000** words preferred (including bibliography, tables, notes). <br> The MLJ follows the APA style guide. However, as with most journals, there are formatting conventions that are particular to the MLJ. <br> Times New Roman font, size 12, double-spaced throughout (including bibliography, any notes, citations, figures, and tables). • Indent paragraphs; no indentation for abstract or beginning of manuscript body. |
| | | Anita Bowles | Rosetta Stone, Ltd, USA | |
| | | Noah Silbert | University of Cincinnati, USA | |
| | | Charles Blake | American Councils for International Education, USA | |
| | | Tim Buckwalter | University of Maryland, USA | |
| | I11 | John Davis | Georgetown University, USA | |
| **ESP** <br> **(n=1)** | 13 | Dana Gablasova | Lancaster University, United Kingdom | Articles should be between **6,000** and **10,000** words in length, including references, notes and tables. Research Notes and Discussions should be between **3000-4000** words <br> Citations in the text should follow the referencing style used by the APA style. <br> Article structure |

| | | | | Introduction: State the objectives of the work and provide an adequate background that includes a review of relevant literature, avoiding a summary of the results. Material and methods: Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described. Results: Results should be clear and concise. Discussion: This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section may be appropriate depending on the nature of the study. Your discussion should refer back to relevant published literature and highlight your contribution. Conclusions: The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section. |
| | | | | |

# APPENDIX (E)

# HYLAND'S (2005) TAXONOMY OF HEDGES

About, almost, apparent, apparently, appear, appeared, appears, approximately, argue, argued, argues, round, assume, assumed, broadly, certain, claim, claimed, claims, could, doubt, doubtful, essentially, estimate, estimated, fairly, feels, felt, frequently, generally, guess, indicate, indicated, indicates, instances, largely, likely, mainly, may, maybe, might, mostly, often, whole, ought, perhaps, plausibly, possible, possibly, postulate, postulated, postulates, presumably, probable, probably, quite, rather, relatively, roughly, seems, should, sometimes, somewhat, suggest, suggested, suggests, suppose, supposed, supposes, suspect, suspects, tend, tended, tends, typical, typically, uncertain, uncertainly, unclear, unclearly, unlikely, usually, would,

## LLSS-520: Seminar in Academic Writing for Graduate Students

### Course Description

Writing for academic/specific purposes and for scholarly publication has become essential to be successful academically and professionally. In order for students to participate effectively in the international discourse community, they need to have critical and professional writing skills. The aim of the course is to provide explicit instruction for graduate students in topics relating to genre knowledge and corpus linguistics. The course intends to help students in applied linguistics, in particular, and across disciplines who are interested in writing scholarly academic manuscript for publication.

In the course, we will be discussing issues regarding genres of academic writing, rhetorical structure, linguistics features, variations across disciplines, as well as writing for publication. Furthermore, the course aims to help initiate writers into their field-specific research communities (English for specific and/or academic purposes) by providing them with relevant writing practices.

### Course Goals and Objectives

By the end of the course, students are expected to:

1. Recognize different genres in academic writing across academic disciplines.
2. Become aware of different formats of research articles;
3. Analyze research articles in their own disciplines to examine variations on the general format, across disciplines, and across cultures and contexts
4. Identify structural patterns and linguistic features of research articles in their own fields.
5. Implement corpus linguistic tools to identify linguistic features in research articles.
6. Collaborate effectively with their peers to provide feedback on one another's work.
7. Be aware of the power of publication in the international discourse community.
8. Being able to establish an authorial identity and understanding the rhetorical nature of writing for publication.
9. Write a research article with attention to structural and language issues within each section of the research article.

### Required books/readings

Hyland, K. L. (2004). *Genre and second language writing*. Ann Arbor, MI: University of Michigan Press.
Paltridge, B., & Starfield, S. (2016). *Getting Published in Academic Journals: Navigating the Publication Process*. Ann Arbor, MI: University of Michigan Press.
Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: Essential tasks and skills* (3rd ed.). Ann Arbor, MI: University of Michigan Press.

### Supplemented readings

Hyland, K. L. (2015). *Academic publishing: Issues and challenges in the construction of knowledge*. Oxford: Oxford University Press.
Tardy, C. (2015). *Beyond convention: Genre innovation in academic writing*. Ann Arbor, MI: University of Michigan Press.

Apart from these books, readings (e.g., research articles and book chapters) will be chosen to align with the disciplines of enrolled students. Hence, these readings are subject to change.

### Evaluation Criteria

- Writing a book review
- Multi-genre portfolios including a final 500-word reflection
- A draft of a research paper

### Conferencing

There will be a two-time instructor-student conferencing for about 45 minutes each throughout the semester. The purposes of the conferencing are to discuss the progress of conducting genre analysis as well as the process of constructing/writing/editing students final research paper.

| Class schedule | | |
|---|---|---|
| **Week 1** | Introduction to the course | |
| **Week 2** | What is genre? | Swales (1990) Ch.1-4 |

| | | |
|---|---|---|
| | Perspectives on Genre<br>Introduction to Genre Analysis | Hyland (2004) Ch.1-2<br>Hyon (1996) |
| **Week 3** | Genre-based approach<br>Corpus linguistics approach | Hyland (2004) Ch. 3,5<br>Flowerdew (2005)<br>Biber (2009)<br>Biber, Connor & Upton (2007)<br>Charles (2006)<br>**Research Topic <u>DUE</u>** |
| **Week 4** | Corpora, Concordancing, and<br>Exploratory self-learning<br>(**<u>in the computer lab</u>**) | Reppen (2010), Nelson (2010),<br>Koester (2010), Scott (2010)<br>**Assigning book review** |
| **Week 5** | The genre of Research Articles | Swales (1990) Ch. 7<br>Ruiying & Allison (2003) |
| **Week 6** | Writing for academic publication across<br>disciplines, across cultures and contexts | Paltridge & Starfield (2016) Ch. 1-2<br>Hyland (2015) Ch. 1 |
| **Week 7** | Applied Genre Analysis | Hyland (2004) Ch. 7, Swales (1990)<br>Ch. 7, Bhatia (2002), Swales &<br>Tardy (2014) |
| **Week 8** | Analyzing & Writing a book review | Swales & Feak (2012) Ch. 6 |
| **Week 9** | Constructing a Research Paper:<br>Introduction section | Swales (1990, 2004) CARS model<br>Swales & Feak (2012) Ch. 8 |
| **Week 10** | Analyzing the Introduction section | Oztruk (2007), Hirano (2009), Cortes<br>(2014)<br>**Book review <u>DUE</u>** |
| **Week 11** | Methods section | Swales & Feak (2012) Ch. 7<br>Peacock (2011), Lim (2006)<br>**Introduction <u>DUE</u>** |
| **Week 12** | Results sections | Swales & Feak (2012) Ch. 7<br>Ruiying & Allison (2004), Brett<br>(1994), Lim (2010)<br>**Methods <u>DUE</u>** |
| **Week 13** | Discussion/Conclusion sections | Swales & Feak (2012) Ch. 8<br>Ruiying & Allison (2004)<br>**Results <u>DUE</u>** |
| **Week 14** | Analyzing the Discussion/Conclusion<br>sections | Holmes (1997), Le & Harrington<br>(2015), Dudley-Evans (1994)<br>**Discussion/Conclusion <u>DUE</u>** |
| **Week 15** | Abstract section | Hyland (2000), |

| **Week 16** | Final Paper and Multi-genre portfolios<br>**<u>DUE</u>** |
| --- | --- |

**Required assignments:**

- <u>Book review</u>: students are expected to select a book from their own and then write a book review. The book review should follow the guidelines of the targeted journals where students intend to submit.

- <u>Multi-genre portfolios including a final 500-word reflection</u>: students will be free to write on a topic of their own choosing. The portfolio includes five intermediate assignments along the way that the students need to submit. These assignments are the six sections of their final papers starting with introduction until conclusion sections as well as the abstract.

- <u>500-word reflection</u>: students are asked to reflect on the process of conducting genre analysis and corpus linguistic analysis. The reflection may include the strengths and weaknesses of the analyses and recommendations for developing the course.

- <u>Final paper</u>: students are expected to submit the final draft of the final paper derived from the portfolio. The final paper should not exceed 20 pages including references.

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