

## **Schematic Structure of Discussion of Results Sections in the Field of Dentistry: A Comparison of International and Local English-Medium Journals**

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### **Abstract**

This genre-based study investigates the schematic structure of the English discussion of results sections in international and local journals from the field of dentistry. The corpus comprised 26 discussion sections employing Basturkmen's (2009, 2012) and Yang and Allison's (2003) moves/steps as a point of departure for analysis. The findings showed that the writers of both groups of texts examined tended to draw on similar rhetorical moves pertinent to achieving the communicative function of the English discussion sections from this discipline. However, some minor differences were also observed at the step level. The findings obtained in the current study are useful particularly for novice non-native-English-speaking writers by facilitating their understanding of the schematic structure of discussion sections in this field, thereby raising their success opportunities in publishing their research articles in prestigious international journals. The study concludes with the limitations and implications of the findings as well as recommendations for future research.

**Keywords:** discipline, discussion section, genre, move/step analysis, research article

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## Introduction

English has been established as an international language particularly for science and technology (Johns & Dudley-Evans, 1991), and the research article (RA) in English has consequently become the means for scholarly communication and circulation of academic knowledge among researchers from different discourse communities (Swales, 1990, 2004). As a result, the underlying schematic structure of RAs (organization of moves and steps) has been the focus of many genre-based studies since Swales' (1990) publication of the revised Create a Research Space (CARS) model. The main tenant of Swales' (1990, 2004) genre analysis approach is that a text within a genre tends to follow a typical textual pattern, comprising a number of specific moves sequenced in a particular order that are also realized by a series of steps. "Move" refers to a discursual segment that performs a particular communicative function (Swales, 2004) whereas a "step" is defined as "a lower level text than the move that provides a detailed perspective on the options open to the writer in setting out the moves" (Dudley-Evans & St John, 1998, p. 89). Swales' (1990, 2004) genre analysis/move analysis framework has been employed by many researchers to investigate RAs or sections of RAs in different academic fields and in different languages (e.g., Basturkmen, 2012; Fakhri, 2009; Hirano, 2009; Kanoksilapatham, 2015; Lim, 2006; Loi, 2010; Ozturk, 2007; Samraj, 2002; Sheldon, 2011; Tessuto, 2015). These genre-based studies and others have shown some significant variations in the schematic structure of RAs due to a text's purpose and the social expectations held for the text (Basturkmen, 2012). It has been observed that RA writing may vary considerably depending on the intended audience, such as whether the text is for a local or international discourse community (Hirano, 2009). Therefore, the current study aims to investigate the schematic structure of discussion sections of English dentistry RAs published in international journals and a representative sample of discussion sections written by Arab writers in local journals.

The discussion section plays an important role in RAs in that writers need to position their research in relation to other writing in the field, thereby contributing to disciplinary knowledge in their respective fields (Basturkmen, 2012; Holmes, 1997; Peacock, 2002; Yang & Allison, 2003). The main communicative function of discussion sections has been defined as the section in which writers explain "why the results occurred as they did" (Bitchener, 2010, p. 179), compare their results to previous research, and discuss the significance of results. However, the discussion section has been found to be the most challenging part of RAs, theses, and dissertations to write for both native and non-native speakers of English (Bardi, 2015; Bitchener & Basturkmen, 2006; Dong, 1996; Flowerdew, 1999; Swales, 2004). Therefore, the schematic structure of the discussion of the results section has received growing attention in English for academic purposes (EAP) genre-based studies, and this section has been examined in individual disciplines or disciplinary fields (Basturkmen, 2009, 2012; Dubois, 1997; Holmes, 1997; Hopkins & Dudley-Evans, 1988; Lewin et al., 2001; Peacock, 2002; Peng, 1987; Yang & Allison, 2003), including biomedicine (Dubois, 1997), chemical engineering (Peng, 1987), social sciences (Lewin et al., 2001), history, sociology, political science (Holmes, 1997), physics and material science, biology, environmental science, business, language and linguistics, public and social administration, and law (Peacock, 2002). These studies have identified a sequence of moves and steps common to the discussion sections in different disciplines, and the moves and steps identified were ascribed to different frameworks used but not unique to the different disciplinary areas explored (Dubois, 1997; Lewin et al., 2001). In addition, research has indicated that the discussion sections featured the presence of repeated cycles of moves and that

no obligatory moves across the disciplines examined were reported (Holmes, 1997; Peacock, 2002).

Relevant to the current study are the recent studies of Yang and Allison (2003) and Basturkmen (2009, 2012). Yang and Allison (2003) examine the final sections (results, discussions, and conclusions) of RAs in applied linguistics. They observe seven moves for discussion sections sequenced in the following order: providing background information, reporting results, summarizing results, commenting on results, summarizing the study, evaluating the study, and drawing deductions from the research. They further report that, although the same set of seven moves appeared across all final sections, commenting on results was the most frequent and obligatory move and could occur repeatedly in the discussion sections. The two moves of reporting results and summarizing results together occurred less often, although the former occurred in all discussion sections except one. Consequently, Yang and Allison (2003) consider the reporting results move to be quasi-obligatory. The commenting on results move is further examined by Basturkmen (2009) in discussion sections in RAs and master's dissertations from the field of language teaching. Basturkmen finds that both RA authors and master's dissertation writers discussed their findings mainly through a series of result-comments sequences where results from their study were discussed one by one or as sets of related results. Most relevant to the current study is Basturkmen's (2012) investigation of the steps in commenting on results move in the discussion of results section in dentistry RAs. Basturkmen (2012) finds that Yang and Allison's (2003) moves/steps framework of the discussion of results sections in applied linguistics is mostly applicable because the move/step types identified were similar to those described in applied linguistics (Basturkmen, 2009; Yang & Allison, 2003). In addition, Basturkmen (2012) indicates that the two moves of reporting results and commenting on results are obligatory moves in that they occurred in all the texts analyzed while the other moves are optional. Basturkmen (2009) finds that the writers of dentistry texts in her study drew on the same types of the three steps in commenting on results moves identified in applied linguistics—namely, explaining results, comparing results to previous research, and evaluating results. However, Basturkmen (2012) observes that these three steps of commenting moves were employed in an almost equally percentage in the dentistry texts compared to the applied linguistics texts (Basturkmen, 2009).

Although some studies have identified the schematic structure of RAs written by Arab writers, their focus was mainly on the introduction section in Arabic (Al-Qahtani, 2006; Alharbi, in press; Fakhri, 2004, 2009). It appears that no research has been published comparing the schematic structure of English discussion sections written by Arab writers in local journals with a representative sample of discussion sections in international journals. In addition, only a limited number of studies have explored the difficulties in writing discussions even though many studies (e.g., Bitchener & Basturkmen, 2006; Flowerdew, 1999) have suggested that this section is probably the most difficult to write. In particular, three main difficulties in writing the discussion section have been documented in past studies, including language proficiency difficulties, genre of discussions, and content of discussions (Bitchener & Basturkmen, 2006). Although the discussions of the language proficiency and the genre issues have been discussed in previous research (Bitchener & Basturkmen, 2006; Flowerdew, 1999; Holmes, 1997; Peacock, 2002), it seems that the issue of what content to include in discussions has been under-researched.

Therefore, the current study aims to explore the schematic structure of discussion sections from the field of dentistry from two different publication contexts (i.e., local and international), drawing on relevant existing frameworks of discussion sections provided in Basturkmen (2009, 2012) and Yang and Allison (2003). The study focuses on texts from dentistry because this field is still relatively under-researched (Basturkmen, 2012) and is also of particular interest for pedagogic reasons. Indeed, it is hoped that the obtained results of this study could be employed to raise the non-native English speaking writers' awareness of the schematic/rhetorical structure that might exist between the discussion sections of local and international journals, thereby increasing their chances to publishing their RAs in prestigious international journals. The remainder of this article is divided into the following parts. The first section provides detailed information on the corpus and analytical procedure adopted for the current study. The second section presents the main findings of the current study. The third sheds light on the discussion of the main findings. The fourth section states the limitations of the study, the implications of the findings, and some suggestions for future research.

### **The corpus and analytical procedure**

#### ***The corpus***

The corpus used in the current study comprised 26 discussion sections from RAs appearing in two English-medium journals in the field of dentistry: *British Dental Journal* (BDJ) and *Saudi Dental Journal* (SDJ) (see Appendix [A] for the complete list of RAs). BDJ was chosen as a representative of international journals in the current study because it is one of the leading journals targeting a readership of researchers and practitioners in the field (Basturkmen, 2012). The selection of SDJ was based on a consultation with a professor from the College of Dentistry at King Saud University, who revealed that SDJ is refereed and acknowledged by scholars for its reputation in the respective field. Despite the similarities that might exist between the discussion sections in these two journals and the communicative function they serve, they seem to be different because they are written for different target audiences, as evident from the scope of the topics covered by the two journals. For a valid comparison, the 26 RAs chosen for the current study were written within a one-year time span (i.e., 2015) because research has shown that the schematic/rhetorical structure of RA may change over time (Crookes, 1986).

#### ***Analytical procedure***

The analysis of the 26 RA discussion sections was conducted in several stages. First, the texts were analyzed for some general features, such as their overall organization. This was followed by a detailed examination of RA discussion sections employing Basturkmen's (2012) framework of moves and steps. Basturkmen's (2012) framework was chosen because it is the product of an empirical investigation on dentistry RA discussion sections, which is also the focus of the current study. Yang and Allison's (2003) framework was also drawn on when describing the realizations of some of the moves in the corpus, particularly the deduction from the research move. The final version of the framework used in RA discussion sections in the current study can be seen in Table 1.

Table 1

*Final framework of RA discussion sections*

<b>Moves (M)/Steps (S)</b>
<b>(M1) Background information</b>
<b>(M2) Reporting results</b>
<b>(M3) Summarizing results</b>
<b>(M4) Commenting on results</b>
<i>(M4-S1) Explaining results</i>
<i>(M4-S2) Comparing results with literature</i>
<i>(M4-S3) Evaluating results</i>
<b>(M5) Summarizing the study</b>
<b>(M6) Evaluating the study</b>
<i>(M6-S1) Indicating limitation</i>
<i>(M6-S2) Indicating significant/advantage</i>
<i>(M6-S3) Evaluating methodology</i>
<b>(M7) Deduction from the research</b>
<i>(M7-S1) Recommending further research</i>
<i>(M7-S2) Drawing pedagogic implications</i>
<i>(M7-S3) Implications for clinical practice or policy</i>

It is worth mentioning here that, after analyzing the texts, it was essential to involve a second rater for reliability considerations. The second rater, an applied linguistics professor knowledgeable in genre analysis, reanalyzed 50% of the corpus. After the second rater finished coding the sets of texts, we discussed our analyses and debated the disagreements that occurred between us. The second rater mostly agreed with me regarding the assignment of moves; however, the main point of disagreement between the second rater and me was in a very limited number of cases where a sentence contained two moves, as shown in Example (1).

Example (1) In conclusion, individuals with high levels of dental fear referred for CBT have good outcomes in terms of receiving dental care without the need for sedation. A minority have coexisting psychological problems which should be considered when managing this patient group.

While the researcher assigned the whole segment of text in Example (1) to summarizing the study (M5), the second rater assigned the last part (i.e., “which should be considered when managing this patient group”) to implications for clinical practice or policy (M7-S3). After our discussions regarding how to resolve this disagreement in the assignment of the moves/steps, we both agreed to assign the whole text segment to summarizing the study (M5). The decision reached was based on the idea that, although there were two moves/steps representing two different moves (M5 and M7), the former move appeared to be more salient than the latter; therefore, this segment ought to be assigned to summarizing the study (M5). To sum up, what emerged from our discussions regarding such disagreements was that, when there is more than one move/step, the relevant code to be assigned is the one that seems most salient (Hirano, 2009;

Ozturk, 2007). It should be noted that, as the second rater and the researcher were not members of the discipline under focus, we also consulted a professor from this field to obtain his 'emic' accounts (Fetterman, 1998) regarding our analyses of the texts. We used a simple percentage agreement to calculate the inter-rater reliability (Mackey & Gass, 2005). The total percentage of agreements between me and the second rater for all of the texts analyzed exceeded 95%, which is acceptable in qualitative research (e.g., Mackey & Gass, 2005; Miles & Huberman, 1994). The analysis was mainly qualitative, but some quantification was used to support observations. It was also agreed that, if a particular move or a representative step used to realize the move occurred in every RA discussion section, this move is regarded as obligatory; if a move occurred in fewer than seven RAs, the move is considered optional, whereas if it occurs in seven to 12 RAs, the move is considered conventional. For the purpose of identification, the RA discussion sections from BDJ were codified as BDJ1–BDJ13 whereas those from SDJ were codified as SDJ1–SDJ13.

## Results

This section presents the findings of the analysis of the RA discussion sections terms of the moves and the steps used to realize some of the moves. Some typical examples of the moves and the steps from the texts analyzed will also be provided in this section. Table 2 provides the number of instances of moves (M) and steps (S) in each RA discussion section in BDJ and SDJ, and Table 3 shows the frequency of moves and steps found in the RA discussion sections analyzed in the current study.

Table 2

*Number of instances of moves (M) and steps (S) in each RA discussion section*

	M1	M2	M3	M4			M5	M6			M7		
				S1	S2	S3		S1	S2	S3	S1	S2	S3
BDJ1	1	5	1	9	2						1		
BDJ2	3	5	3	8	1			1					1
BDJ3		4		4	1	1		1		1	2	1	2
BDJ4	3	5		5							1		1
BDJ5	4	3	1	2		1		2	1	1	2		
BDJ6	3	2		3			1	1					2
BDJ7	2	2		3	4								1
BDJ8		10		14			1				2		2
BDJ9	5	6		3									3
BDJ10	1	3		2	1								1
BDJ11	1	3		3	2							1	
BDJ12	2	8		7	3								
BDJ13	3	6		6									2
SDJ1	1	2		6	4		1	3					1
SDJ2	2	2		2	2			1		1	2		
SDJ3	1	2		3									
SDJ4	1	3	1	2				1		2	1	6	
SDJ5		1	1	3	1			1		1	1		
SDJ6	2	1		5	2			1			1		
SDJ7	1	6		4	3							2	
SDJ8	4	6		9	8			1			1		2
SDJ9	1	2	2	3									1

<b>SDJ10</b>	2	9		7	3						2		
<b>SDJ11</b>	1	6		4	6			1			1	2	
<b>SDJ12</b>	1	1		12	1			2			2		
<b>SDJ13</b>	1	3		5	4								

Table 3

*Frequency of moves and steps found in two sets of texts analyzed in the current study*

Moves (M)/Steps (S)	BDJ	SDJ
<b>(M1) Background information</b>	28	18
<b>(M2) Reporting results</b>	62	44
<b>(M3) Summarizing results</b>	5	4
<b>(M4) Commenting on results</b>	85	99
(M4-S1) Explaining results	69	65
(M4-S2) Comparing results with literature	14	34
(M4-S3) Evaluating results	2	0
<b>(M5) Summarizing the study</b>	2	1
<b>(M6) Evaluating the study</b>	7	15
(M6-S1) Indicating limitation	5	11
(M6-S2) Indicating significant/advantage	0	0
(M6-S3) Evaluating methodology	2	4
<b>(M7) Deduction from the research</b>	25	25
(M7-S1) Recommending further research	8	11
(M7-S2) Drawing pedagogic implications	2	10
(M7-S3) Implications for clinical practice or policy	15	4

As evident in Table 2, M1, which prepares the readers for the report or discussion of the findings [Example (2)], is a conventional move in the sub-corpora. This move was employed in all texts analyzed except in two texts from BDJ and one text from SDJ. M2, which is used to present the results of the study [Example (3)], is an obligatory move as it occurred in each RA discussion section of both sets of texts examined. As for M3, whose function is to sum up of the results of the study [Example (4)], it is an optional as it occurred in only three texts in the two sub-corpora.

- Example (2) The present study provides information about the prevalence and severity of TMDs, based on the FAI, in male university students of Riyadh, Saudi Arabia... (SDJ2)
- Example (3) The results from this study showed that only 39% of digital radiographs were judged to be of the correct density or contrast; 36% were too light and 25% were too dark... (BDJ13)
- Example (4) Overall, the findings of our study tend to indicate that repair of failing restorations, except in cases where failure is due to deep recurrent caries, would be preferential to the replacement of the entire restoration... (BDJ2)

M4 functions principally to establish the meaning and significance of the results of the study in relation to the relevant field. M4 is an obligatory move in the RA discussion sections in the two sets of texts, as shown in Table 2. For the three steps of M4 (i.e., M4-S1, M4-S2, and M4-S3) through which the results of the study are commented, the analysis shows some variation

regarding the status of these three steps in terms of being obligatory, conventional, or optional. First, M4-S1 is an obligatory step in both sets of texts. M4-S1 is where the RA writers explain their results by making claims or generalizations based on the findings of the study by providing the readers with further explanation or giving the reasons for the observed differences in findings or expected outcomes. To explain their results, writers may use some words indicating either certainty or tentativeness, such as *seem*, *suggest*, *indicate*, and *appear*; modal verbs such as *may*, *might*, *would*, and *could*; or phrases such as *possible explanation for*, *it is possible*, and *may be explained by* [Example (5) and Example (6)].

Example (5) These results suggest that the three groups agree on the diagnosis of the malocclusion, but the approach to proper orthodontic treatment seems to be unclear for the pediatric dentists and the general practitioners...(SDJ11)

Example (6) The inhibition in tooth movement may be explained by the ability of strontium to increase osteoblast replication, osteoblast differentiation and bone matrix synthesis and mineralization...(SDJ10)

M4-S2 is conventional step in both sets of texts. M4-S2 allows the writers to compare their study's findings with those of previous works [Example (7)]. Some distinct linguistic features were used to realize this step, particularly in the forms of "be" plus some adjectives (e.g., *be consistent with*, *be similar to*) or certain words or phrases such as *agree with*, *stands in contrast*, and *lends support to those of*. Noticeably, these linguistic signals coexisted with citations.

Example (7) The absence of a gender-based difference in the prevalence of dental anomalies in the present study is in agreement with the findings of others (Ranta, 1983, 1986; Shapira et al., 1999; Ribeiro et al., 2003)...(SDJ8)

M4-S3 allows the writers to evaluate their results by stating the strengths and weaknesses of the results [Example (8)]. The analysis showed that M4-S3 is optional as this step occurred in only two texts in the BDJ group and none in the SDJ group, as shown in Table 2.

Example (8) ..., indicating that our results were statistically reliable. (BDJ5)

M5, which functions to provide the readers with the main findings of the research study, is an optional move in the two groups of texts examined. This move was employed in only one and two texts in BDJ and SDJ, respectively. This move is similar to M3; however, some differences were observed. The major difference is that summary or conclusive words or phrases, such as *in sum* and *in conclusion*, were commonly followed by particular statements related to overall results [Example (9)], while those in M3 were followed by specific results.

Example (9) In conclusion, individuals with high levels of dental fear referred for CBT have good outcomes in terms of receiving dental care without the need for sedation. A minority have coexisting psychological problems which should be considered when managing this patient group. (BDJ6)



Writers employ M6 to evaluate the overall study by pointing out the limitations, indicating the contributions or evaluating the methodology. M6 is realized via three steps: M6-S1, M6-S2, and M6-S3. First, M6-S1, whose main objective is to describe the limitations of the research being conducted [Example (10)], was found to be an optional and conventional step in the BDJ and SDJ, respectively, as shown in Table 2. As for M6-S2, which allows writers to point out the strengths of the study that may be significant for applications or implications, the analysis demonstrated that this step was not utilized in both sets of texts examined in the current study. M6-S3, which is used to comment on the strengths or weaknesses of the research methodology [Example (11)], is an optional step in both sub-corpora.

Example (10) The study limitation includes the limited number of patients as we included only the patients treated by the author team.... (SDJ6)

Example (11) The strengths of the present study include its large sample size and reasonable response rate.... (SDJ4)

In M7, writers draw inference about the results by proposing areas for further research, drawing pedagogical implications, or drawing implications for clinical practice or policy. M7 is actualized by three steps: M7-S1, M7-S2, and M7-S3. The principal function of M7-S1 is to state some possible directions for future research [Example (12)]. M7-S1 was found to be an optional step in the BDJ set and a conventional step in the SDJ group. Meanwhile, M7-S3, which allows writers to indicate necessary changes for clinical practices or policies [Example (13)], was a conventional step in the BDJ set and an optional step in the SDJ group.

Example (12) Further research to explore the ability of DH-Ts to manage benign oral lesions is warranted... (BDJ3)

Example (13) Therefore, clinicians should effectively utilize the biomechanical considerations that influence denture stability, such as muscle tonus, neuromuscular coordination, and tongue, cheek, lip, and jaw to fabricate conventional complete dentures (Chaytor, 2004)... (SDJ9)

M7-S2, which allows writers to state the pedagogical significance of the study [Example (14)], was an optional step in the two sets of texts.

Example (14) These findings can also serve to guide the design of course content for the proposed master's degree program, whereby course objectives will be focused in areas where competency levels are lower and importance is ranked higher. (SDJ 4)

## Discussion

The current study examined the schematic structure of discussion sections of English dentistry RAs published in two different research communities (i.e., international and local journals), utilizing relevant existing analytical frameworks (Basturkmen, 2009, 2012; Yang & Allison, 2003). The analysis of data revealed that the writers of the two sets of texts tended to draw on the same types of rhetorical moves, but they also employed a few steps to actualize the moves somewhat differently.

The analysis of both groups of texts indicated that commenting on results (M4) and reporting results (M2) are obligatory moves in both sub-corpora analyzed. It is not surprising that M4 is the most repeatedly employed move in the RA discussion sections from the field of dentistry because commenting on the results by explaining, evaluating, or comparing the results with relevant literature is a key communicative function of the RA discussion section (Basturkmen, 2009). This finding lends support to those observed in earlier genre-based studies in that M4 was reported to occur frequently in RA discussions of result sections in different disciplinary areas (e.g., Basturkmen, 2012: dentistry; Kanoksilapatham, 2005: biochemistry; Yang & Allison, 2003: applied linguistics). Meanwhile, it was also expected that M2 would be the second most commonly used move in both groups of texts due to the fact that M4 never appears by itself, but always in conjunction with another occurrence of M2. That is, the result being reported in the discussion section is more likely to be commented upon. Indeed, Basturkmen (2012) observed that repeated sequences of M2 and M4 (result-comment sequences) constituted a major structural pattern in the discussions of result sections in the English dentistry RA. This finding also corroborates previous studies indicating the cyclical nature of components in RA discussions of results sections in different disciplinary areas (e.g., Basturkmen, 2009, 2012; Hopkins & Dudley-Evans, 1988; Kanoksilapatham, 2003; Peacock, 2002; Swales, 1990). The higher frequency of reporting results (M2) in the texts examined and the rare appearance of summarizing results (M3) suggest that the writers of both sets of texts tended to prefer to provide individual results or linked results and comment on them alternatively instead of summarizing results and commenting on them, suggesting that this practice could be seen as a disciplinary tendency in the field of dentistry (Basturkmen, 2012).

In addition, the analysis of data has shown that the remaining five moves (M1, M3, M5, M6, and M7) are less common in the two sets of texts, which is consistent with other genre-based studies showing a low occurrence of these moves in the discussion sections (e.g., Basturkmen, 2012; Yang & Allison, 2003). Furthermore, the RA discussions of results sections in dentistry generally opened with M1 and closed with M7. Similar findings were reported in past studies in that discussions of results sections in dentistry tended to generally open with M1 and close with M7 (Basturkmen, 2012), distinguishing these texts from those in social sciences, which generally opened with statements of results (Holmes, 1997).

Some variation was observed between the two groups, as the analysis of data showed. First, although background information (M1) was found to be conventional in both sub-corpora, this move was more common in the BDJ sub-set (28 instances versus 18 instances in the BDJ and SDJ group, respectively). This move could be utilized by the BDJ group writers as a rhetorical strategy functioning as promotion. A similar finding was reported in Basturkmen (2012). This promotional function could also explain the far more common use of comparing results with literature (M4-S2) in the SDJ. The much higher frequency of M4-S2 in the SDJ group texts may be used those writers to show their ability to situate their studies within the existing body of literature in their discipline. Thus, comparing their results could be seen as a promotional function utilized by SDJ writers to highlight the importance of their findings (cf. Hyland, 2002).

Second, the analysis of data indicated that evaluating the study (M6) was an optional move in the BDJ sub-group and conventional in the SDJ set. This variation between the two sub-

sets can be explained with reference to the step-level analysis. Although there is no apparent difference between the two sub-sets of texts analyzed in terms of employing M6-S2 and M6-S3 to actualize M6, M6-S1 (indicating limitation) is used differently in the two sub-corpora, with almost twice as many occurrences of M6-S1 found in SDJ than BDJ, which may account for the variation between the two sets of texts in terms of the employment of M6. In addition, this variation in the use of M6-S1 could also explain the greater number of uses of M7-S1 in the SDJ group. It seems that the writers of these texts first indicate the limitations of their studies; thus, they may think that it is appropriate to propose possible future research directions based on the limitations of their studies. On the other hand, the BDJ writers employed M7-S3 in their texts more than their SDJ counterparts did (15 instances versus 4 instances, respectively), suggesting that the writers of each set of texts in the current study targeted a particular readership of researchers or practitioners in the discipline. It seems that BDJ writers are interested in providing practical implications for clinical practice or policy based on their research findings while their SDJ counterparts are more concerned with recommending possible areas for further research. As for M7-S2, although there are more occurrences of this step in the SDJ sub-set, more than half of these occurrences were used in one RA, suggesting that this variation is not confined to the SDJ texts but may be related to individual writer preferences/idiosyncrasies or to the nature of the topic being discussed.

### Conclusion

The current study examined the schematic structure of the English discussion of results sections in international and local journals in the field of dentistry. Overall, the findings indicated that the writers of both groups of texts analyzed tended to draw on similar moves relevant to achieving the communicative function of this RA rhetorical section in the field of dentistry, albeit with a few minor variations between the two sets of texts. The findings suggest that disciplinary practices might override cultural preferences with regard to writing the discussion of the results section in this disciplinary field. The tendency to similarly structure the discussion sections in the two sub-corpora could be the influence of the writers' educational backgrounds (Al-Qahtani, 2006). In other words, it seems that the SDJ group writers may be aware of the conventions set by the discourse community as a result of obtaining their doctoral degrees from Western universities. The findings of the current study may be beneficial for non-native-English-speaking writers who are increasingly pressured to publish in international journals in the field of dentistry. These writers may find the findings of this study helpful for sensitizing them to the rhetorical features of the RA discussions of results sections. Understanding the rhetorical structures of the different parts of RAs will enable novice writers to organize their RAs in a form that leads to an increased chance for their RAs to be accepted for publication in prestigious international journals in their respective fields. It is evident that the texts collected for analyses in this exploratory study were still insufficient to establish the generalizability of the findings. Therefore, future research can use a larger corpus of comparing the discussion sections from this field. The current study focused on the schematic structure of the discussions of results sections in the field of dentistry; therefore, further research could be directed to investigate other schematic sections of RAs in this field (e.g., introduction, conclusion) in order to assess the influence of disciplinary practices and the cultural interventions when writing these RA sub-genres.

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## Appendix [A]

### Articles from the *British Dental Journal*

- BDJ 1. Harding, A., Vernazza, C. R., Wilson, K., Harding, J & Girdler, N. M. (2015). What Are Dental Non-Attenders' Preferences for Anxiety Management Techniques? A Cross Sectional Study Based at a Dental Access Center. *British Dental Journal*, 218, 415-421
- BDJ 2. Javidi, H., Tickle, M., & Aggarwal, V. R. (2015). Repair vs Replacement of Failed Restorations in General Dental Practice: Factors Influencing Treatment Choices and Outcomes. *British Dental Journal*, 218, E2 (1-5)
- BDJ 3. Brocklehurst, P., Pemberton, M. N., Macey, R., Cotton, C., Walsh, T. & Lewis, M. (2015). Comparative Accuracy of Different Members of the Dental Team in Detecting Malignant and Non-Malignant Oral Lesions. *British Dental Journal*, 218, 525-529
- BDJ 4. Wright, S. & Archer, C. (2015). An Exploratory Study to Investigate if Patients are Able to Aid the Early Diagnosis of Peri-Implant Complications. *British Dental Journal*, 218, 637-640
- BDJ 5. Chen, H., Sui, Q., Chen, Y., Ge, L. & Lin, M. (2015). Impact of Haematologic Deficiencies on Recurrent Aphthous Ulceration: A Meta-Analysis. *British Dental Journal*, 218, E8 (1-6)
- BDJ 6. Kani, E., Asimakopoulou, K., Daly, B., Hare, J., Lewis, J., Scambler, S., Scott, S. & Newton, J. T. (2015). Characteristics of Patients Attending for Cognitive Behavioral

Therapy at One UK Specialist Unit for Dental Phobia and Outcomes of Treatment. *British Dental Journal*, 219, 501-506

- BDJ 7. McCrea, S. J. J. (2015). Intravenous Sedation as an Adjunct to Advanced Comprehensive Dental Implantology: The Patient's Perspective and Operator Satisfaction. *British Dental Journal*, 218, E11 (1-5)
- BDJ 8. Chapman, H. R., Chipchase, S. Y. & Bretherton, R. (2015). Understanding Emotionally Relevant Situations in Primary Dental Practice: Reported Effects of Emotionally Charged Situations. *British Dental Journal*, 219, E8 (1-6)
- BDJ 9. Quach, S., Brooke, A. E., Clark, A. & Ellison, S. J. (2015). Blood Investigations Prior to Oral Surgery for Suspected Alcohol-Induced Coagulopathy. Are They Necessary? *British Dental Journal*, 219, 121-123
- BDJ 10. Forbes, G., Rutherford, S., Stirling, D., Young, L. & Clarkson, J. (2015). Current Practice and Factors Influencing the Provision of Periodontal Healthcare in Primary Dental Care in Scotland: An Explorative Study. *British Dental Journal*, 218, 387-391
- BDJ 11. Jose, A., Butler, A., Payne, D., Maclure, R., Rimmer, P. & Bosma, M. L. (2015). A Randomised Clinical Study to Evaluate the Efficacy of Alcohol-Free or Alcohol-Containing Mouthrinses with Chlorhexidine on Gingival Bleeding. *British Dental Journal*, 219, 125-130
- BDJ 12. Puri, A., Ho-A-Yun, J. & McGuinness, N. J. (2015). Use and Knowledge of IOTN among GDPs in Scotland. *British Dental Journal*, 218, 399-404
- BDJ 13. Chong, B. S., Miller, J. & Sidhu, S. (2015). The Quality of Radiographs Accompanying Endodontic Referrals to a Health Authority Clinic. *British Dental Journal*, 219, 69-72

#### Articles from the Saudi Dental Journal

- SDJ 1. Al-Anezi, S. A. (2015). The Effect of Orthodontic Bands or Tubes upon Periodontal Status during the Initial Phase of Orthodontic Treatment. *Saudi Dental Journal*, 27, 120-124
- SDJ 2. Habib, S. R., Al Rifaiy, M. Q., Awan, K. H., Alsaif, A., Alshalan, A., & Altokais, Y. (2015). Prevalence and Severity of Temporomandibular Disorders among University Students in Riyadh. *Saudi Dental Journal*, 27, 125-130
- SDJ 3. El-Anwar, M. I., Yousief, S. A., Soliman, T. A., Saleh, M. M. & Omar, W. S. (2015). A Finite Element Study on Stress Distribution of Two Different Attachment Designs under Implant Supported Overdenture. *Saudi Dental Journal*, 27, 201-207
- SDJ 4. Al-Agili, D. E. (2015). A Needs Assessment Survey of Dental Public Health Graduate Education in Saudi Arabia. *Saudi Dental Journal*, 27, 141-148

- SDJ 5. Anan, M. T. M & Al-Saadi, M. H. (2015). Fit Accuracy of Metal Partial Removable Dental Prosthesis Frameworks Fabricated by Traditional or Light Curing Modeling Material Technique: An in Vitro Study. *Saudi Dental Journal*, 27, 149-154
- SDJ 6. Abdullah, W. A. (2015). Changes in Quality of Life after Orthognathic Surgery in Saudi Patients. *Saudi Dental Journal*, 27, 161-164
- SDJ 7. Al-Ansari, A., El-Tantawi, M., AbdelSalam, H. & Al-Harbi, F. (2015). Academic Advising and Student Support: Help-Seeking Behaviors among Saudi Dental Undergraduate Students. *Saudi Dental Journal*, 27, 57-62
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- SDJ 9. Alfadda, S. A., Al-Fallaj, H. A., Al-Banyan, H. A. & Al-Kadhi, R. M. (2015). A Clinical Investigation of the Relationship between the Quality of Conventional Complete Dentures and the Patients' Quality of Life. *Saudi Dental Journal*, 27, 93-98
- SDJ 10. Al-Duliamy, M. J., Ghaib, N. H., Kader, O. A., & Abdullah, B. H. (2015). Enhancement of Orthodontic Anchorage and Retention by the Local Injection of Strontium: An Experimental Study in Rats. *Saudi Dental Journal*, 27, 22-29
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- SDJ 12. Al-Alawi, H., Al-Jawad, A., Al-Shayeb, M., Al-Ali, A., & Al-Khalifa, K. (2015). The Association between Dental and Periodontal Diseases and Sickle Cell Disease. A Pilot Case-Control Study. *Saudi Dental Journal*, 27, 40-43
- SDJ 13. Al-Zubair, N. M. (2015). Determinant Factors of Yemeni Maxillary Arch Dimensions. *Saudi Dental Journal*, 27, 50-54