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Rhetorical Structure of Introduction in Applied Linguistics Research Articles

ABSTRACT: *The RA (Research Article) is considered to be the main channel of knowledge production. However, for student writers and novice scholars writing, RA is a challenging task. It is partly because of lack of exposure to and awareness of the rhetorical structure of RAs (Research Articles) in the intended discipline. The objective of this study is to identify the rhetorical moves of RAs in applied linguistics and explaining their communicative functions that can be used for pedagogic purposes for novice scholars in this discipline. Analyses of moves and their constituent steps together with their frequency count would help suggest obligatory and optional moves in the Introduction section. Also analysis of move structural patterns, which would enable to draw possible move sequencing is within the purview of this study. A corpus of 20 empirical RAs of leading and representative 4 journals in applied linguistics have been analyzed following J.M. Swales (1990 and 2004) move analysis of Introduction sections of empirical RAs. Results were obtained through software coding of moves of these 20 RAs, and through qualitative analysis of communicative functions of moves and steps. From the frequency count of moves and steps, it is found that some moves and their constituent steps are obligatory, while others are optional. Findings show they both conform to and depart from J.M. Swales' CARS (Create-a-Research-Space) model in 1990 and 2004. The findings of the study will facilitate better understanding of RAs in applied linguistics for novice scholars and contribute to these scholars' efforts to publish their research in this field.*

KEY WORDS: *Introductions; Research Articles; Rhetorical Structure; Move Analysis; Genre.*

INTRODUCTION

Among variety of genres in academic setting RAs (Research Articles) have received the highest attention as it is one of the major means of production and dissemination of knowledge. Not surprisingly, RAs written in English is at the centre of research focus with occasional concentration given to RAs of other languages, especially from the

perspective of contrastive rhetoric.

Scholars have analyzed different sections of RAs in numerous disciplines. In some of them complete rhetorical structure of RAs, e.g. in *biochemistry*: B. Kanoksilapatham (2005); in *medical science*: K.N. Nwogu, (1997); in *computer science*: S. Posteguillo (1999); in *chemistry*: F.L. Stoller & M.S. Robinson (2013); and in *law*: G. Tessuto

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(2015), have been analyzed.

The Introduction section has been widely studied in a range of areas, such as in *social sciences*: I. Ozturk (2007); C.K. Loi (2010); C.K. Loi & M.S. Evans (2010); E. Sheldon (2011); and L. Lin (2014); in *pure, natural, and applied sciences*: B. Kanoksilapatham (2007 and 2008); W. Shehzad (2008); H. Ping, Z. Zhengyu & W. Qingqing (2010); M.M. Del Saz-Rubio (2011); H. Graves, S. Moghaddasi & A. Hashim (2014); and following by J.M. Swales (1990)'s CARS (Create-a-Research-Space) model.

Drawing inspiration from this model, other sections of RAs have been analyzed, for example: *Method sections* in J.M.H. Lim (2006); I. Bruce (2008); M. Peacock (2011); and S. Gollin-Kies (2014); *Results sections* in D.K. Thompson (1993); P. Brett (1994); I.A. Williams (1999); I. Bruce (2008); H. Basturkmen (2009); and J.M.H. Lim (2010); and *Discussion sections* in A. Hopkins & T. Dudley-Evans (1988); R. Holmes (1997); and M. Peacock (2002).

Similarly, assessment of linguistic features of RAs has been done, such as: *lexico-grammatical choice* by B. Kanoksilapatham (2008); *linguistic mechanism* by J.M.H. Lim (2010); *linguistic features of evaluative stance* by A. Khamkhien (2014); *metadiscoursal elements, namely, hedges and boosters* by M. Takimoto (2015); etc.

As a discipline under social sciences, Introduction section of RAs in applied linguistics have been investigated in some studies, yet the attention given to it is not sufficient considering the challenges associated with writing Introduction of RAs by novice writers. Three prominent studies on the Introduction sections of RAs in applied linguistics cover several significant issues in regard to this beginning sub-genre of RA. In this context, I. Ozturk (2007) shows that there are sub-disciplinary differences in the formation and pattern of move structure (Ozturk, 2007).

In this study, second language acquisition and second language writing, two different domains of applied linguistics, were reported to be reliant on different move structures. Second language acquisition largely conformed to traditional CARS (Create-a-Research-Space) model, while second language writing

relied mostly on Move 1 and Move 3 with recurrent use of Step 2 of Move 1 "making topic generalizations", and Step 3 of Move 1 "reviewing items of previous research".

In E. Sheldon (2011)'s work, move structure and patterns were also found to be diverse across cultures. E. Sheldon's examination of RAs written in English, in international journals *vis-à-vis* RAs written in Spanish and RAs written in English by Spanish writers, shows that there is a close resemblance between CARS model and RAs written in English journals, while Spanish RAs show propensity to some culture bound norms (Sheldon, 2011).

However, with increased "intercultural and interlingual contacts caused by globalization" (Hyland, 2005), both Spanish RAs and L2 (Second Language) English, RAs follow the norms of Introduction section of L1 (First Language) English RAs. Moreover, L. Lin (2014) identified that there are instances when one category is not adequate to classify communicative functions and structure of RAs in applied linguistics, when Introduction is followed by an independent Literature Review section (Lin, 2014).

The two types of communicative moves recognized by L. Lin (2014) are "traditional CARS type" and "innovative two move orientation type"; the former as the name suggests largely conforms to CARS model, while the latter is comprised of only two moves, namely: "identify the issue" and "present the study" (Lin, 2014).

These studies in applied linguistics together with other studies advance the move-based study in the area of genre analysis. However, to our knowledge, Introduction of RAs in applied linguistics with an orientation to ELT (English Language Teaching) has not been addressed so far.

Admittedly, applied linguistics is a "diverse and contested area" (Ruying & Allison, 2004:266), and ELT occupies a prominent place in it. With globalization and associated spread of English as an academic lingua franca, there is ever increasing demand of English teaching and learning; it is, therefore, important to do the generic analysis of applied linguistic RAs with ELT orientation.

Table 1:
List of RAs (Research Articles) Published in Four Journals

<p>AL (<i>Applied Linguistics</i>): Shi, L. (2010). "Textual Appropriation and Citing Behaviors of University Undergraduates" in <i>Applied Linguistics</i>, 31(1), pp.1-24. (AL-1) O'Halloran, K. (2011). "Investigating Argumentation in Reading Groups: Combining Manual Qualitative Coding and Automated Corpus Analysis Tools" in <i>Applied Linguistics</i>, 32(2), pp.172-196. (AL-2) Dobao, A.F. (2012). "Collaborative Dialogue in Learner-Learner and Learner-Native Speaker Interaction" in <i>Applied Linguistics</i>, 33(3), pp.229-256. (AL-3) Millar, N., B. Budgell & K. Fuller. (2013). "'Use the Active Voice Whenever Possible': The Impact of Style Guidelines in Medical Journals" in <i>Applied Linguistics</i>, 34(4), pp.393-414. (AL-4) Ren, W. (2014). "A Longitudinal Investigation into L2 Learners' Cognitive Processes during Study Abroad" in <i>Applied Linguistics</i>, 35(5), pp.575-594. (AL-5)</p> <p>TQ (<i>TESOL Quarterly</i>): File, K.A. & R. Adams. (2010). "Should Vocabulary Instruction be Integrated or Isolated?" in <i>TESOL Quarterly</i>, 44(2), pp.222-249. (TQ-1) Ferris, D. et al. (2011). "Responding to L2 Students in College Writing Classes: Teacher Perspectives" in <i>TESOL Quarterly</i>, 45(2), pp.207-234. (TQ-2) Park, G. (2012). "I am Never Afraid of Being Recognized as an NNES': One Teacher's Journey in Claiming and Embracing her Nonnative Speaker Identity" in <i>TESOL Quarterly</i>, 46(1), pp.127-151. (TQ-3) Macaro, E. & J.H. Lee. (2013). "Teacher Language Background, Codeswitching, and English Only Instruction: Does Age Make a Difference to Learners' Attitudes?" in <i>TESOL Quarterly</i>, 47(4), pp.717-742. (TQ-4) Kayi Aydar, H. (2014). "Social Positioning, Participation, and Second Language Learning: Talkative Students in an Academic ESL Classroom" in <i>TESOL Quarterly</i>, 48(4), pp.686-714. (TQ-5)</p> <p>ESP (<i>English for Specific Purposes</i>): Kassim, H. & F. Ali. (2010). "English Communicative Events and Skills Needed at the Workplace: Feedback from the Industry" in <i>English for Specific Purposes</i>, 29(3), pp.168-182. (ESP-1) Soler-Monreal, C., M. Carbonell-Olivares & L. Gil-Salom. (2011). "A Contrastive Study of the Rhetorical Organisation of English and Spanish PhD Thesis Introductions" in <i>English for Specific Purposes</i>, 30(1), pp.4-17. (ESP-2) Cheng, S.W. (2012). "'That's it for Today': Academic Lecture Closings and the Impact of Class Size" in <i>English for Specific Purposes</i>, 31(4): 234-248. (ESP-3) Hafner, C.A. (2013). "The Discursive Construction of Professional Expertise: Appeals to Authority in Barrister's Opinions" in <i>English for Specific Purposes</i>, 32(3), pp.131-143. (ESP-4) Graves, H., S. Moghaddasi & A. Hashim. (2014). "'Let G = (V, E) be a Graph': Turning the Abstract into the Tangible in Introductions in Mathematics Research Articles" in <i>English for Specific Purposes</i>, 36, pp.1-11. (ESP-5)</p> <p>ELT (<i>English Language Teaching</i>): Bhattacharya, A. & K. Chauhan. (2010). "Augmenting Learner Autonomy Through Blogging" in <i>English Language Teaching</i>, 64(4), pp.376-384. (ELT-1) Rebuck, M. (2011). "Using the L1 'Errors' of Native Speakers in the EFL Classroom" in <i>English Language Teaching</i>, 65(1), pp.33-41. (ELT-2) Yilmaz, S. & S. Akcan. (2012). "Implementing the European Language Portfolio in a Turkish Context" in <i>English Language Teaching</i>, 66(2), pp.166-174. (ELT-3) Evans, S. (2013). "Designing Tasks for the Business English Classroom" in <i>English Language Teaching</i>, 67(3), pp.291-293. (ELT-4) Serrano, R., E. Tragant & A. Llanes. (2014). "Summer English Courses Abroad versus 'at Home'" in <i>English Language Teaching</i>, 68(4), pp.397-409. (ELT-5).</p>
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As it is found in literature that different domains of disciplines have distinct move structures; therefore, the present study focuses on the move structure of Introduction sections of RAs in applied linguistics. The move structure identified was compared with CARS model to show the degree of variability of move structure of applied linguistics with the CARS model. Moreover, studies undertaken on the move pattern of the Introductions

sections of RAs in other disciplines underscore the necessity of carrying out research in applied linguistics (Salager-Meyer, 1992; and Swales & Feak, 2004).

In this respect, the purpose of the study is two folds. Firstly, the identification of rhetorical moves and explaining their communicative functions in applied linguistics that can be used for pedagogic purposes for novice scholars in this area. Analyses of

Table 2:
Impact Factor and Number of Citations of the Selected Journals

Journal Title	Impact Factor	Total Citations
<i>Applied Linguistics</i>	1.846	1,435
<i>TESOL Quarterly</i>	1.000	1,487
<i>English for Specific Purposes</i>	0.953	655
<i>English Language Teaching</i>	0.759	531

moves and their constituent steps together with their frequency count would help suggest obligatory and optional moves in the introduction section. Secondly, analysis of move structural patterns which would enable to draw possible move sequencing.

This study, will thereby show, the communicative functions of moves and steps together with their frequency of occurrence. Also to draw a possible move sequencing is within the purview of this study. It can also contribute to genre theory by exploring whether the rhetorical structure of this discipline conform to or depart from traditional CARS model. This corpus based study with its genre analytic approach will enable researchers and practitioners to develop teaching materials, which are authentic and supported by research.

METHODS

Data Collection and Analysis. A corpus of 20 RAs (Research Articles) from four journals published during 2010-2014 within the field of applied linguistics was compiled. The journals selected are: ESP (*English for Specific Purposes*), TQ (*TESOL Quarterly*), AL (*Applied Linguistics*), and ELT (*English Language Teaching Journal*) on the criteria of reputation, accessibility, and impact factor. The list of RAs published in four journals are shown in table 1.

These journals have high reputation among English language teaching researchers and practitioners; and these journals' impact factor and citation reports are proofs of their acceptability in the concerned discourse community. In JCR (Journal Citation Report) Social Science report, in 2013,¹ the impact

factor and number of citations of these journals are presented in table 2.

These journals were accessible to the first author of this paper as he could collect the RAs (Research Articles) published in these journals through PPV (Pay Per View) request from the library, where the research was carried out. These selection criteria were matched with two other factors, as follows:

Firstly, one expert informant, a university lecturer holding doctoral degree and published widely in applied linguistics, were consulted for journal and RA (Research Article) selection. He was of the opinion that ESP (*English for Specific Purposes*) and AL (*Applied Linguistics*) publish RAs within the broad spectrum of applied linguistics; however, ELT (*English Language Teaching*) is a prime concern of them, whereas TQ (*TESOL Quarterly*) and ELT are dedicated to English language teaching and research. Therefore, he recommended these journals to be included in this study that aimed to analyze rhetorical structure and linguistic feature of RAs devoted to ELT.

Secondly, it was also found that Y. Ruying & D. Allison (2004), in their study of macrostructural analysis RAs, chose these same journals as they "retained a focus on applied linguistics in relation to English language teaching" (Ruying & Allison, 2004:266).

Five articles from each journal from the period of 2010-2014 were chosen following a stratified random sampling. Author, paper type, and year of publication were the strata for sampling the RAs from the above mentioned journals. The RAs selected for the corpus were all empirical and original research articles drawn from under the categories of "articles" in AL, TQ, and ELT, and "original research articles" in ESP.

To ensure that the elements of subjectivity

¹See, for example, "Citation Metrics Workshop – Journal Citation Report (JCR) Prepared by Cited Reference Team, NUS Libraries, on March 2013". Available online at: <http://www.lib.nus.edu.sg/ilp/crt/2013/WoS/Journal%20Citation%20Reports.pdf> [accessed in Bangi, Malaysia: February 12, 2016].

Table 3:
The CARS Model for RA Introductions (Swales, 1990:141)

<p>Move 1. Establishing a Territory Step 1. Claiming centrality and/or Step 2. Making topic generalizations and/or Step 3. Reviewing items of previous research</p>
<p>Move 2. Establishing a Niche Step 1.A. Counter-claiming or Step 1.B. Indicating a gap or Step 1.C. Question-raising or Step 1.D. Continuing a tradition</p>
<p>Move 3. Occupying the Niche Step 1.A. Outlining purposes or Step 1.B. Announcing present research Step 2. Announcing principle findings Step 3. Indicating RA structure</p>

Table 4:
J.M. Swales' Revised Model for Research Article Introductions (2004:230 and 232)

<p>Move 1: Establishing a territory (citations required)*** via Topic generalizations of increasing specificity</p>
<p>Move 2: Establishing a niche (citations possible)*** via Step 1A: Indicating a gap or Step 1B: Adding to what is known Step 2: Presenting positive justification*</p>
<p>Move 3: Presenting the present work via Step 1: Announcing present research descriptively and/or purposively (obligatory) Step 2: Presenting research questions or hypotheses* Step 3: Definitional clarifications* Step 4: Summarizing methods* Step 5: Announcing principal outcomes** Step 6: Stating the value of the present research** Step 7: Outlining the structure of the paper**</p>

* Optional and less fixed in order

** Probable in some academic disciplines

*** Possible cyclical patterning of moves particularly in longer Introductions

do not affect the corpus selection, only one article from an author was selected. To avoid the idiosyncrasies of a single issue, only one article per journal per year was selected and it was further ensured that thematic and topical varieties were maintained with the selected articles. Also special issues published in the selected journals within the timeframe of the corpus were deliberately avoided with the conjecture that articles of similar thematic nature might show the propensity of adhering to similar rhetorical structure. For more

details on corpus compilation of the present study refer to M. Rahman, S. Darus & A. Zaini (2015).

The corpus of the present study which comprised of 20 RAs is sufficient considering other studies in genre analysis of RA corpora were compiled with 20 or fewer RAs (*cf* Brett, 1994; Nwogu, 1997; Samraj, 2002; Lim, 2006; and Kanoksilapatham, 2008). Having completed the selection of RAs from four journals, a reference code was ascribed to each of the RA consisting of abbreviations

Table 5:
 Frequency of Moves and Steps in 20 Introductions

Moves/Steps	AL	TQ	ESP	ELT	Total	(%)
M1 Establishing a territory	5	5	5	5	20	(100%)
S1 Claiming Centrality	4	4	4	5	17	
S2 Topic generalizations	5	5	5	5	20	
S2 Citations/literature review	4	5	5	2	16	
M2 Establishing a niche	5	5	5	2	17	(85%)
S1 (A) Indicating a gap or	4	5	5	2	16	
S1 (B) Adding to what is known	0	0	1	0	1	
S2 Presenting positive justification	2	2	2	1	7	
M3 Presenting the present work	5	5	5	5	20	(100%)
S1: Announcing present research descriptively and / or purposively	5	5	5	5	20	
S2: Presenting research questions or hypotheses	5	4	1	2	12	
S3: Definitional clarifications	3	0	0	2	5	
S4: Summarizing methods	0	0	0	0	0	
S5: Announcing principal outcomes	0	0	0	0	0	
S6: Stating the value of the present research	0	3	3	2	8	
S7: Outlining the structure of the paper	2	0	0	0	2	

derived from the initials of the journals along with a numeric according to the chronology of publication year. See again table 1.

J.M. Swales (1990)'s CARS (Create-a-Research-Space) model and revised CARS model, in 2004, were the basis for coding the Introduction sections of RAs (Swales, 1990 and 2004); however, data coding was also influenced by M.M. Del Saz-Rubio (2011) and L. Lin (2014). See tables 3 and 4.

As a first step, two level rhetorical analyses (move and step) were conducted for the entire corpus. This process was straight forward except for the occasional circumstances, when an individual sentence contained two moves. In such cases following previous studies (Crookes, 1986; Ozturk, 2007; Del Saz-Rubio, 2011; Sheldon, 2011; and Lin, 2014), the move unit that demonstrated most salient function was considered. An example is shown below:

The research so far has considered the rewards and challenges experienced by Native-English-Speaking Teachers (NESTs) as well as NNESTs, yet attention to diversity within these groups has been limited (Park, 2012:129, as in TQ-3).

In this instance, the first segment of the sentence reviews literature (Move 1, Sep 3) and the later part of the sentence indicates a gap (Move 2, Step 1A). In this case, Move

2, Step 1A seems more salient; therefore, the entire sentence was coded as Move 2, Step 1A. The coding was mainly conducted by the first author; however, for ensuring reliability a section of the corpus was coded by a second rater, who had expertise in second language acquisition research and who was familiar with genre analysis. The first author used WinMax's QDA program (MaxQDA, 2012) for coding the texts of the corpus.

RESULTS AND DISCUSSION

Communicative Functions of Moves and Steps and Their Frequency. The CARS (Create-a-Research-Space) model of Introduction proposed by J.M. Swales (1990) is comprised of three moves, which are realized by several constituent steps where some of the steps are obligatory and some are optional (Swales, 1990:141). The functional role of Introduction of RAs (Research Articles) is to situate them contextually in a research study by discussing the literature relevant to the study, by presenting the originality of the study, and also by describing principal aspects of the study (Swales, 1990).

All three introductory moves were found to be obligatory on the RAs of applied linguistics based on cut off frequency followed in B. Kanoksilapatham (2005), which is

Table 6:
Total Frequency and Average Occurrence of Steps in 20 Introductions

Moves	Steps	Total	Average Occurrence per Sections
M 1: Establishing a territory	S1: Claiming centrality	22	1.1
	S2: Making topic generalizations	73	3.65
	S3: Citation / literature review	87	4.35
M 2: Establishing a niche	S 1A: Indicating a gap	32	1.6
	S 1B: Adding to what is known	1	0.05
	S2: Presenting positive justification	7	0.35
M 3: Presenting the present work	S1: Announcing present research descriptively and/or purposively	35	1.75
	S2: Presenting research questions or hypotheses	13	0.65
	S3: Definitional clarifications	4	0.2
	S4: Summarizing methods	-	-
	S5: Announcing principal outcomes	-	-
	S6: Stating the value of the present research	9	0.45
	S7: Outlining the structure of the paper	2	0.1

occurrence of at least 60% of the moves and their constituent steps (Kanoksilapatham, 2005). The frequencies of rhetorical moves and steps of the corpus comprised of Introduction sections 20 RAs are shown in table 5. The functions and realizations of each move and steps are explained afterwards. The moves and steps of the present corpus have been identified with Swales' CARS model (1990, 2004). See table 5.

It can be noticed in table 5 that the frequency of occurrence of both Move 1 and Move 3 is 100%, while Move 2 is 85%. Following B. Kanoksilapatham (2005), the cut off frequency for the present study is determined as 60%, i.e. if a move or a step occurs 60% and above it is an obligatory move, while if a move or a step occurs less than 60% it is an optional move (Kanoksilapatham, 2005).

All three moves were found to be obligatory in the present corpus for their occurrence above the cut off frequency. To demonstrate the characteristic features of each Move/Step, their objectives and the way the realized in the RAs (Research Articles) are discussed further.

Move 1: Establishing a Territory. It denotes the study to be reported is important and significant in the established research field and, therefore, bears ample importance or

worthy of investigation. As sketched in the J.M. Swales (1990) framework of Move 1, it has three aspects or steps. It is an obligatory move because of its 100% occurrence in the present corpus (Swales, 1990). In most cases, the Introduction sections of corpus of the present study began with this move though the occurrence of steps was found not to always appear in the form as envisaged.

Step 1: Claiming Centrality. It marks the assurance that the topic and field chosen bears considerable importance and significance in the established research. As can be seen in table 5, its presence is fairly common in the corpus as out of 20 RAs (Research Articles) it is present in 17 RAs. It can be further noticed in table 6 that claiming centrality has occurred 22 times throughout the corpus and its average frequency is more than 1, which suggest that it is an obligatory step in applied linguistics corpus. See table 6.

The way claiming centrality is realized in the RAs (Research Articles) is shown in the following examples:

The analysis of specific purpose genres, such as research articles, research reports, grant proposals, texts for professional purposes and theses, is a growing area of research and pedagogical endeavour (Soler-Monreal, Carbonell-Olivares & Gil-Salom, 2011, as in ESP-2).

The ELP has been implemented in many European countries since 2001, and its pedagogical effectiveness as a means of promoting learner autonomy was researched intensively in pilot studies (Yilmaz & Akcan, 2012, as in ELT-3).

Step 2: Making Topic Generalizations. It is the process of the gradual drawing on from broader to the particular field that the study is dealt with. It is the only step in Move 1 that marks its presence throughout the entire corpus, i.e. topic generalizations is available in all 20 Introduction sections. However, it can be seen in table 6 that it is not the highest occurring step in Move 1. The average occurrence of this step per Introduction section is above three, while the total occurrence is 73. The realization of Move 1 Step 2 is illustrated in the excerpts below:

The role of collaboration in L2 learning has been emphasized by the study of interaction from a sociocultural theory of mind perspective (Dobao, 2012, as in AL-3).

One aim has been to work out the writing conventions in disciplines as social practices of discourse communities (Graves, Moghaddasi & Hashim, 2014, as in ESP-5).

Step 3: Citation / Literature Review. It is the review and reference to previous literature pertinent to the study. Similar to Move 1 Step 1, this step is available in 17 RAs (Research Articles) though the number of total occurrence is highest among the steps of Move 1 which is 87. It is also noteworthy that the total occurrence of Move 1 Step 3 is not only highest in Move 1, but it is also the maximum occurrence of a step throughout the corpus. The way this step is found in the corpus of this study is shown in the following examples:

In an integrated approach, focus on linguistic form (in this case vocabulary items), whether planned or incidental, occurs in the context of communicating meaning (e.g., Ellis *et al.*, 2001b; and Long & Robinson, 1998) [Kayi Aydar, 2014, as in TQ-5].

[...] motivation and autonomy are seen as interwoven with both intrinsic and extrinsic factors playing a significant role (Deci & Ryan, 1985; and Oxbrow, 2000) [Serrano, Tragant & Llanes, 2014, as in ELT-5].

All the steps under Move 1 are present in almost all the RAs (Research Articles) and throughout applied linguistics Introductions and the identified moves and their constituent steps are “recursive” and “cyclical” in nature. It is found in table 5 and 6 that applied linguistics RAs demonstrate high use of Step 3: Citation / literature review, a total 87 occurrence with an average occurrence of 4.35, whereas Step 2: Making generalizations of increasing specificity occurred 73 times with an average of 3.65. Moreover, Step 1: Claiming centrality is also frequently occurred with an average occurrence 1.1.

As disciplinary variation is common characteristic in genre formation, it is not surprising that unlike the frequent occurrence of Move 1 Step 3 in the present corpus, Computer Science RA introductions often lack in Move 1 Step 3 possibly, because of its comparatively short history that restrict researchers in the high use of literary citations (Cooper, 1985; Hughes, 1989; and Posteguillo, 1999). Thus, contrastive analysis enables us to understand varying disciplinary choices in the application of moves and steps, and to become aware of the practices conventional in a particular discipline.

The analysis of three steps of Introductions showed that Move 1 of applied linguistics corpus conformed to J.M. Swales (1990) model, whereas Move 2 and 3 largely conformed to J.M. Swales (2004) model. Hence, J.M. Swales, in his 2004 model, merged the three steps of Move 1 of his 1990 model into one and, thus, apparently eliminated the difficulty of distinguishing literature review from topic generalizations (Swales, 2004).

The present corpus, however, showed the distinct nature of both topic generalizations and literature review. Therefore, unlike J.M. Swales (2004) model, these two steps were shown separately in the present corpus.

Move 2: Establishing a Niche. W. Shehzad (2008) referred Move 2 as a “mini-critique”, which serves the purpose of linking studies undertaken in the field with the current research and assisting the discipline to move forward (Shehzad, 2008). It draws attention to the existing weaknesses and gaps

of a particular field to the members of a disciplinary community.

Table 5 shows that Step 1A (Indicating a gap) is the most dominant step as found among the steps of Move 2. It is not only present in 16 RAs (Research Articles), table 6 shows the total occurrence of this step throughout the corpus is 32. On the other hand, Step 2 (Presenting positive justifications) occurred less frequently in the corpus. However, because of 85% occurrence in the corpus, Move 2 is considered to be an obligatory move.

Move 2 Step 1A: Indicating a Gap. Move 1 Step 1A plays the role of finding gaps, limitations or weaknesses of previous research and, thus, directly or indirectly justifies the rationale for conducting new study. As mentioned, it is the most dominant step in Move 2 occurring an average of 1.6 in each section of the corpus. The frequent occurrence of this step makes it an obligatory step in the present corpus. Some examples of this step are given below:

Analyses of learners' cognitive processes involved in the production of speech acts are still lacking (Ren, 2014, as in AL-5).

Despite this, there are also many children and teenagers who go abroad to learn an L2 (especially English) and very little research exists analysing how these younger participants develop their L2 skills in an SA setting as opposed to a classroom setting AH (Serrano, Tragant & Llanes, 2014, as in ELT-5).

Move 2 Step 1B: Adding to What is Known. This step functions as following a direction of research or continuing with a tradition of research previously pursued. There is only one occurrence of Move 2 Step 1 B throughout the present corpus. For example:

Although the number of ESP studies conducted in Malaysia is small, and the focus is on different disciplines and professions, these studies have helped us to realize the need to conduct constant and updated survey analyses to help prepare our students for the ever-changing world of professionals (Kassim & Ali, 2010, as in ESP-1).

Move 2 Step 2: Presenting Positive Justification. The function of this step is to demonstrate

the need for the research or provide positive reasons about the study reported usually following the identification of research gap. The use of this step is also rare as it is found in 6 articles with total frequency of 8, and the frequency of average occurrence per section is below 1. Two examples from Move 2 Step 2 are given below:

Investigating the discourse of argumentation in reading groups thus offers an opportunity for obtaining insight into how people debate with one another in self-organized, informal circumstances (O'Halloran, 2011, as in AL-2).

When designed and executed with caution, particularly in combination with other data collection methods, the RVR can provide researchers with added in-depth insights into participants' pragmatic knowledge (Ren, 2014, as in AL-5).

From this analysis, it can be assumed that similar to J.M. Swales (2004) model, niche is established in the present corpus through "Indicating a gap" or "Adding to what is known" and "Presenting positive justification". Quantification of Move 2 shows that "Indicating a gap" is the highest occurring step of Move 2, and research niche is established mainly through this step. Such findings concur with previous studies of B. Samraj (2002); P.D. Pho (2008); B. Kanoksilapatham (2011); and M.M. Del Saz-Rubio (2011).

Move 3: Presenting the Present Work. In J.M. Swales' CARS (Create-a-Research-Space) model, in 2004, Move 3 serves the purpose of describing the research being conducted in the present study; and according to this model, the purpose can be achieved through seven steps (Swales, 2004).

In the present applied linguistics corpus, however, this move is realized by five steps. In none of the 20 RAs (Research Articles) that comprise the corpus has Step 4 (Summarizing methods) or Step 5 (Announcing principal outcomes). Despite the omission of two Steps, Move 3 is an obligatory move in the present corpus due to its 100% occurrence.

Move 3 Step 1: Announcing Present Research Descriptively and/or Purposively. Move 3 Step 1 is the most frequent step in Move 3

that describes the objective of the study to be reported. It is available in all the RAs (Research Articles) of applied linguistics corpus occurring 35 times across the RAs, with an average frequency of 1.75 per section. Relevant examples are given below:

This study investigates whether and how NSs collaborate with the learner in the solution of their linguistic problems and the co-construction of new language knowledge (Dobao, 2012, as in AL-3).

The present study, therefore, attempts to create a comparison of isolated and integrated approaches to vocabulary teaching in a reading lesson, by providing equal instruction time and promoting similar processing for the target words in both conditions (File & Adams, 2010, as in TQ-1).

Table 6 shows that Step 1 (Announcing present research) is the highest occurring step used to realize Move 3. Move 3 Step 1 has been used more than other steps of Move 3 resemble the findings of similar previous studies (Jogthong, 2001; and Jalilifar, 2010). Comparatively more occurrence of this step in the present study and similar other studies demonstrate that Move 3 Step 1 is an important step for the realization of Move 3.

Move 3 Step 2: Presenting Research Questions or Hypotheses. The purpose and role of this step is straightforward that is to present research questions and hypothesis. Though all 20 RAs (Research Articles) do not have a Move 3 Step 1, majority of them (13) has this step and this is second most frequent step in Move 3.

Normally RA (Research Article) authors present either research question/s or hypothesis. Surprisingly, the occurrences of this step are all research questions, except one instance of hypothesis in the present corpus. The way Move 3 Step 2 was realized in the present applied linguistics corpus is shown in the examples below:

Our study is guided by the following research questions: (Millar, Budgell & Fuller, 2013, as in AL-4).

Based on the emerging themes extracted from the literature we formulated the following research questions: (Macaro & Lee, 2013, as in TQ-4).

Move 3 Step 3: Definitional Clarifications. The function of this step is to describe the key terms that are integral to the concerned study. There are only four occurrences of definitional clarifications in the present corpus; therefore, this is an optional step in applied linguistics corpus. See, for example:

When I refer to “argumentation” in this article, I am signalling the process of argument (O’Halloran, 2011, as in AL-2).

Sociopragmatics is “the sociological interface of pragmatics” (Leech, 1983:10), and addresses the relations between linguistic actions and social constraints [Ren, 2014, as in AL-5].

Move 3 Step 4: Summarizing Methods. This step was not found in the present corpus.

Move 3 Step 5: Announcing Principal Outcomes. This step was not found in the present corpus.

Move 3 Step 6: Stating the Value of the Present Research. This step introduces the significance or value of the study in terms of the positive effect that the study is able to create.

Out of 20 RAs (Research Articles) in the present corpus Move 3 Step 5 occurred in 4 RAs with an average occurrence of 0.2 per section; therefore, it is an optional step in the present corpus. The realization of two of these steps is shown in the examples below:

Perhaps the greatest value in this current study is that it describes the process of how learners’ positional identities are constructed and reconstructed across contexts and interactions (Kayi Aydar, 2014, as in TQ-5).

This investigation has **contributed** to both syllabus design and module development which could mould and cater for the needs of engineering students as future global engineers, and hence, ensure their language development and enhance their competitive advantage in the job market (Kassim & Ali, 2010, as in ESP-1).

Move 3 Step 7: Outlining the Structure of the Paper. This step is employed to describe the structural organization of the paper, i.e. the way different sections of the paper is arranged so that reader can clearly understand what to expect in a particular section of the paper. This is the lowest occurring step in Move 3 occurred only twice in the corpus and, hence, is an optional step. Both the Move 3 Step 7

Table 7:
Pattern of Move Structure of RA (Research Article) Introductions

RA (Research Article)	Moves	Number of Move Units
AL-1	1-2-3	3
AL-2	1-2-3-2	4
AL-3	1-3-1-2-1-3	6
AL-4	1-3-1-3-1-3	6
AL-5	1-2-1-3-2-3-1-3-2-3-1-2-3-1-3	15
TQ-1	1-3-1-3-1-3-2-3	8
TQ-2	1-2-1-3-1-3	6
TQ-3	1-2-1-2-3-1-2	7
TQ-4	1- 3-1-2-1-2-1-3-1-2-3	11
TQ-5	1-2-3-1-2-1-3	7
ESP-1	1-3-1-3-1-3-2-3	8
ESP-2	1-2-3-1-3	5
ESP-3	1-2-1-2-1-2-1-2-1-2-3	11
ESP-4	1-3-1-3-2-1-2-1	8
ESP-5	1-2-1-2-1-3	6
ELT-1	3-1-3-1-3-1-3	7
ELT-2	1-3-1-3	4
ELT-3	1-3	2
ELT-4	1-2-3	3
ELT-5	1-2-1-3-1-3	6

Table 8:
Frequency of the Patterns of Move Structure in the Corpus

Move Structure	Number	%
1-2-3	2	10
1-2-3-2	1	5
1-3-1-2-1-3	1	5
1-3-1-3-1-3	1	5
1-2-1-3-2-3-1-3-2-3-1-2-3-1-3	1	5
1-3-1-3-1-3-2-3	2	10
1-2-1-3-1-3	1	5
1-2-1-2-3-1-2	1	5
1- 3-1-2-1-2-1-3-1-2-3	1	5
1-2-3-1-2-1-3	1	5
1-2-3-1-3	1	5
1-2-1-2-1-2-1-2-1-2-3	1	5
1-3-1-3-2-1-2-1	1	5
1-2-1-2-1-3	1	5
3-1-3-1-3-1-3	1	5
1-3-1-3	1	5
1-3	1	5
1-2-1-3-1-3	1	5

steps found in AL (*Applied Linguistics*) journals are shown in the examples below:

The structure is as follows. We start by critiquing commonly cited arguments against using the passive voice and outlining our

research questions. We then describe our data set and the metrics which we used to analyse it. In the following sections, we present and discuss results from our analyses and argue the need for style guidelines which better reflect the reality of actual usage (Millar, Budgell & Fuller, 2013, as in AL-4).

Table 9:
 Proposed Model for RA (Research Article) Introductions in Applied Linguistics

<p>M1 Establishing a territory via S1 (obligatory) Claiming Centrality S2 (obligatory) Topic generalizations S2 (obligatory) Citations/literature review</p>
<p>M2 Establishing a niche via S1 (A) (obligatory) Indicating a gap, or S1 (B) Adding to what is known S2 (optional) Presenting positive justification</p>
<p>M3 Presenting the present work via S1: (obligatory) Announcing present research descriptively and/or purposively S2: (obligatory) Presenting research questions or hypotheses S3: (optional) Definitional clarifications S4: (optional) Stating the value of the present research S5: (optional) Outlining the structure of the paper</p>

The article is structured as follows: first, the literature on learners' cognitive processes in L2 pragmatics research is reviewed, followed by a brief overview of the validity and reliability issues of the RVRs. The methods and findings of the present investigation are then presented, followed by a discussion of the findings (Ren, 2014, as in AL-5).

In the analysis of Move 3, it can be noticed that the applied linguistics corpus of the present study used five of the seven steps of Move 3 of J.M. Swales (2004) model for RA (Research Article) Introductions. These findings differ with E. Sheldon (2011), whose L1 (First Language) English applied linguistics RA authors used all the seven steps of J.M. Swales (2004) model. The difference of findings of these two studies is perhaps because the corpus of the present study is small and, therefore, all the seven steps might be found in a larger corpus. The difference may also occur for the reason that the corpora of these two studies were selected from two different periods (Swales, 2004; and Sheldon, 2011).

However, the findings of the present study that applied linguistics RA authors were heavily reliant on Move 3 Step 1 (Announcing present research descriptively and/or purposively) in presenting their research to the expected readership concur with E. Sheldon (2011)'s study.

Move Patterns. The results provided in table 7 shows the presence of 18 different patterns of move structure in the corpus. The number

of move unit ranges from 2 to 15. Six move units occurred in highest number, i.e. in five RAs (Research Articles), while fifteen and five move units occurred in just one RA.

CARS (Create-a-Research-Space) model approves of the cyclicity in move occurrence; therefore, four Introductions – in AL (*Applied Linguistics*)-1; ESP (*English for Specific Purposes*)-3; ESP-5; and ELT (*English Language Teaching*)-4 – follow CARS model and remaining sixteen RAs deviate from CARS model.

The formation of ESP-3 and ESP-5 is the recurring Move 1 and Move 2, and culminates in Move 3. In the actual realization, the penultimate step in ESP-3 is a gap indication followed by the final step announcing the present research; while in ESP-5, it is review of literature followed by announcing present research. See table 7.

Table 8 shows M1-M2-M3 was found to be occurred in 10% (2 out of 20) of RA (Research Article) Introductions as mentioned in the CARS (Create-a-Research-Space) model. M1- M3- M1- M3- M1- M3- M2- M3 also occurred in 10% (2 out of 20) of RAs (Research Articles) and other 16 move structures occurred only one time in each RA. These results suggest that there is no distinct move pattern in applied linguistics as in the corpus consisted of 20 RAs there is no dominant move pattern.

G. Crookes (1986), referring to J.M. Swales (1981) model, opined that the linear M1-M2-M3 pattern occurs in RA (Research

Article) Introductions which are short. For longer Introductions, according to G. Crookes (1986), various alternative ways of patterning are possible. However, in the present corpus as can be found in table 7 that only two of the short Introductions, AL (*Applied Linguistics*)-1 and ELT (*English Language Teaching*)-4, conform to M1-M2-M3 pattern. This result is consistent with I. Ozturk (2007), who also could not find any strong link between move pattern and length of RA Introduction (Ozturk, 2007).

J.M. Swales' CARS (Create-a-Research-Space) model, in 1990 and 2004, also does not seem to be applicable in majority of Introductions in the RAs (Swales, 1990 and 2004). In respect to the pattern of move structure, the results indicate that there is an overwhelming deviation from the CARS model.

It is interesting to note that 3 out of 5 ELT Introductions do not have Move 2 and ELT-1 begins with a Move 3. It is perhaps because ELT as a journal is more concerned with practitioners of applied linguistics than with researchers, who can ignore the necessity of niche establishment in Move 2.

The findings of the study highlighted that the rhetorical structure of RAs in applied linguistics, both conform and depart from the CARS model proposed by J.M. Swales (1990 and 2004). The three moves of J.M. Swales' model are obligatory in the present corpus. The steps also conformed to CARS schema except Move 3, which in J.M. Swales (2004) model comprised of seven steps; however, Move 3 in applied linguistics corpus is constituted of five steps.

Move 3 Step 4 (Summarizing methods) and Move 3 Step 5 (Announcing principal outcomes) are omitted in the present corpus. The proposed model of rhetorical structure of applied linguistics RAs is shown in table 9.

A series of three moves serves the overall communicative purpose of applied linguistics corpus. These three moves largely do not occur in a sequential order rather 20 RAs (Research Articles) of the corpus followed 18 different structural patterns. Therefore, the move structural patterns of the present corpus deviate from M1-M2-M3 structure as predicted by J.M. Swales (2004).

CONCLUSION

The sketch drawn from communicative functions of rhetorical structure and move structural patterns can become a showcase of how professional writers construct RAs (Research Articles) in applied linguistics and, thus, can facilitate better understanding of RAs in applied linguistics for novice scholars and contribute to these scholars' efforts to publish their research in this field.

Although the present study provides useful information regarding rhetorical structure and move structure of RAs in applied linguistics, the results derived from this study should be treated with caution as 20 RAs (five each from four different journals) were the basis of this study. Future research may need to expand the present corpus to increase the representativeness of the RAs for enhancing the generalizability of the study.²

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²**Statement:** Herewith, we declare that this paper is our original work; it is not product of plagiarism and not reviewed or published by other scholarly journals elsewhere.

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The Journals and Research Articles
(Source: <http://umet.suagm.edu>, 12/12/2016)

As a discipline under social sciences, Introduction section of RAs (Research Articles) in applied linguistics have been investigated in some studies, yet the attention given to it is not sufficient considering the challenges associated with writing Introduction of RAs by novice writers.