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Move analysis of abstracts in applied linguistics research: The Middle East and North Africa (MENA) perspective

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Abstract

The research article abstract is one of the most important sections of any journal article, but conventions on how it is written may vary in accordance with the contexts that surround them. This study analyzes the moves that occur among a corpus of 29 semi-randomly selected online research article abstracts taken from three Middle East and North Africa (MENA)-based journals in applied linguistics. Using Hyland's (2000) Introduction-Purpose-Methods-Product-Conclusion (I-P-M-Pr-C) move structure as framework and as a result of the analysis of the corpora, it can be surmised that the Purpose (P), Method (M), and Product (Pr) moves are the most prevalent across the corpora of two of the three journals. In addition, only three abstracts out of 29 feature the complete and sequenced I-P-M-Pr-C structure that Hyland (2000) developed. These results suggest the following: Hyland's move structure may be individually evident across the corpus, but it is not sequenced in the order that Hyland's structure is originally presented. This study also posits the influence of journal-writing conventions, such as abstract lengths, on how writers compose their abstracts and thus results in the foregrounding of some moves (e.g., Purpose, Method, Product), the backgrounding of others (e.g., Introduction, Conclusion), and the existence of mixed moves. Lastly, implications for the teaching of writing and other directions of related research are provided.

Keywords: Journal articles, Middle East and North Africa (MENA), move analysis, research article abstracts

1. Introduction

Kanoksilapatham (2009a) explains that the abstract is one of the most common means of communication among a number of academic genres such as research articles, short reports,

conference presentations, and lectures, among others. Regardless of how researchers view the abstract, it is defined as a description or factual summary of a much longer report (i.e., research article). Lores (2004) elaborates that the abstract is an abbreviated but accurate representation of the contents of a document, which is eventually prepared for publication. Darabad (2016) adds that the abstract is the summary of a research article, and it is written in the beginning of an academic paper. Lastly, Hwang, Nguyen, and Su (2017) describe the abstract as the paragraph that shows a brief description of all the contents in a research article.

The abstract, despite its shorter length relative to other sections (i.e., Introduction, Methodology, Results, Discussion, and Conclusion), is a significant section of a research article. Kanoksilaptham (2009b) underscores the abstract's importance by stating that it is one of the pivotal means of communication among scholars from multiple disciplines.

The abstract derives its importance in the following ways:

1. In cases when availability of literature is limited, Cargill and O'Connor (2009) and Fartousi and Dumanig (2012), as cited in Arsyad (2014), discuss that the abstract may be the only part of a research article available to researchers.
2. In situations that call for the importance of being informed of current research, Ventola (1997); Fairclough (2005); Swales, Irwin, and Feak (2009); Hyland (2004); Cross and Oppenheim (2006); and Kanoksilapatham (2015) all agree that research article abstracts are an efficient means of retrieving information and serve as an avenue for scholars to be updated with scientific discoveries and to quickly share and disseminate new achievements (Kanoksilapatham, 2013).
3. In cases of selection for publication in research journals or for selection in conference presentations, the abstract is considered as the 'doorway' that convinces readers of a particular discourse community to select an article or to choose a specific journal, or to admit or even discard a research article vis-à-vis its inclusion in seminars and conferences (Kanoksilapatham, 2009b; Lores, 2004).
4. The abstract, if well-written, can influence whether the research article that contains the abstract can be accepted for publication and eventually for reading and citation in publications (Fallatah, 2016; Huckin, 2001).
5. Even at the simple context of choosing research articles for reading purposes, Arsyad (2014) claims that the abstract allows research article writers to 'sell' their findings to readers. Darabad (2016) echoes this view in saying that the abstract's main purpose is to help researchers and readers make a decision in selecting an article.

6. Lastly, as an avenue for the rapid dissemination of scientific discoveries as a result of being selected for publication in international journals, the abstract can consequently provide an opportunity for peers to help enhance the quality of research in their disciplines and, to a certain extent, determine the scientist's or researcher's professional growth and success (Kanoksilapatham, 2009a).

Given the undisputed importance of the abstract albeit its shorter length vis-à-vis the other contents of a research article, Belcher (2009) attests to the importance of writing the abstract appropriately and interestingly. Kanoksilapatham (2009a) believes that scientists should be able to write their English abstracts in a manner that is acceptable and in conformity with the expectations of a target journal. According to Bhatia (1994), the abstract should consist of the four aspects of a research: purpose, method, results, and conclusion. He further explains that every abstract should provide information about these four features, which include what the author has done, the ways of doing these actions, the findings of the study, and the conclusion. These aspects are also known as moves, which Lores (2004) and Pho (2009) describe, respectively, as a functional term which refers to a defined and bounded communicative act that is designed to contribute to one main communicative objective, and which has its own communicative purpose that contributes to the overall communicative purpose of the entire text. Swales (2004), on the other hand, defines a move as a "discoursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse" (pp. 228-229). Safnil (2000) also describes move as a clause or a set of clauses that reveals specific identifiable communicative purposes through the signaling of linguistic clues inferred from specific information in a text. Santos (1996) also weighs in on the concept of moves in stating that each move in a research article abstract contributes to the ultimate communicative purpose of the genre, and that each move is composed of a number of smaller rhetorical elements, which, in turn, is labelled by Swales (1990) as steps. Taken together, both moves and steps constitute functional units and can therefore be optional or obligatory in a genre. Also, a rhetorical move can be realized by one or more steps, but not all moves will comprise constituent steps (Swales, 2004). Lastly, Kanoksilapatham (2009b) defines move as a text segment recognized by a certain set of co-occurring linguistic features that perform a communicative function, while step is referred as the sub-unit of that move.

Through the years, numerous researchers have sought to describe the moves that can be observed from research article abstracts. Table 1 provides a listing of these moves as they were identified by a number of researchers.

Table 1
Chronological summary of abstract moves as identified by researchers

Researcher(s)	Year	Moves
Bhatia	1993	Aim/methods/findings/conclusions
Santos	1996	Macro-level/micro-level sentence features
Hyland	2000	Introduction/purpose/method/product/ conclusion
Paltridge and Starfield	2007	Main aims, specific objectives, reasons, processes, results
Belcher	2009	Reason/topic/method/results/ conclusions/recommendations
Swales, Irwin, and Feak	2009	Situating the research by generalizing the topic, presenting the research, describing the methodology, summarizing the findings, and describing the research by interpreting the results and/or giving recommendations, implications, and applications of the study

Based on the quantity of research that has led to the identification of different moves in research article abstracts, it can be gleaned that a common thread of moves is evident, which include the following: introduction (generalizations on the topic and presentation of the research, aims (purpose, reasons, objectives), methods (processes), results (product, findings), and conclusion (recommendations, implications, applications).

Despite all the research on identifying the moves found in research article abstracts, a vast array of research was also conducted to describe the structure of the research article abstract by looking at specific disciplines and, to a larger extent, across disciplines.

Melander (1997) provides a dimension on how abstracts are written. Melander suggests that the discipline where the abstract is based can influence how researchers frame their abstracts. The criteria of writing for a specific discipline may urge an author to use rhetorical and linguistic features that can consequently determine the writing of the moves and the steps of the abstract in that specific discipline.

Along with the above, the works of several researchers have revealed insights on the wide variety of moves that can be observed in these discipline-specific abstracts. In the field of applied linguistics, for instance, Santos (1996) examined 94 research article abstracts and discovered that moves 2 and 3, namely Describing the Methodology and Summarizing the Results, were obligatory.

Tseng (2011) conducted a rhetorical study of research article abstracts written in the same abovementioned field. From this research, Tseng observed that a four-move structure,

namely aim, method, results, and conclusion, was more preferred by a majority of writers in the corpus, but only a few abstracts had a Background or Introduction move in the beginning. In a related discipline of linguistics, Lores's (2004) study revealed that from a corpus of 36 abstracts, 61% followed the Introduction, Methods, Results, and Discussion (IMRD) format; about 31% followed Swales, Irwin, and Feak's (2009) CARS (Create A Research Space: Establishing a Territory, Establishing a niche, Occupying the niche) model; and 8% displayed both the IMRD and CARS structures. From a cursory inspection of these results, it can be deduced that even related fields can have minor differences in terms of how abstracts in their research articles are written.

In addition to discipline-specific research, literature is replete with abstract-analysis research that compare applied linguistics and its related fields with those from other disciplines. For example, in abstracts written in social sciences and humanities, a majority have only three moves: purpose, method, and results (Arsyad, 2014). In the fields of higher education versus those of the English language and linguistics and communication, it was found that the abstracts in the former are different from those in the latter, which may have as many as six or seven moves, with four of these being compulsory and two or three being optional. With respect to the contrasts identified across abstracts in applied linguistics, applied mathematics, and applied chemistry, Darabad (2016) reported that the main similarities among these abstracts were found in the status of the introduction move, which is considered as the least occurring move; while the most frequent moves are Problem, Method, Results, and Conclusion (PMRC). Darabad also observed that the purpose and product moves were identified to be present in almost all the abstracts, thus are considered as mandatory constituents in these disciplines.

Surveying some of this body of research on discipline and multidisciplinary studies on research article abstracts, the following assumptions can be made:

1. Research article abstracts seem to vary to a certain extent across disciplines, which then reveals the dynamic and flexible nature of these abstracts (Cross & Oppenheim, 2006; Fartousi & Dumanig, 2012; Kanoksilapatham, 2009b; Melander, Swales, & Fredrick, 1997; Santos, 1996; Sauperl, Klasinc, & Luzar, 2008).
2. The presence of mixed moves where one move is embedded into another move as is the case with some sample research below.

    2.1 Santos' (1996) observation on how the method move is partially or totally merged with the purpose move in abstracts in applied linguistics and educational technology
    2.2 Pho's (2008) conclusion on the observed combination of the purpose and the product moves in applied mathematics and applied chemistry corpora
    2.3 Darabad's (2016) findings on the mixing of the method move with the purpose move in some applied linguistics and applied chemistry abstracts

An example of mixed moves from this study is mentioned below:

The results of the four language tests showed high levels of reliability and validity and *support the usefulness of these tools to diagnose children with SLI, whose performance on the tests was mostly consistent with findings in other languages.*	Product: Indicates results *Conclusion: Points to implications*

3. In connection with the above, abstract length can also be determined by audience specificity. This is explained in such a way that journals published for a specific or expert audience will typically have abstracts which have shorter background move compared with journals written for a broader target audience (Kanoksilapatham, 2013).
4. Shorter abstracts, as a result of the absence of the introduction and the conclusion moves, have the potential of lowering the quality of the abstracts because the above moves are considered to have the ability to persuasively attract readers to read the entire article (Zhang, Thuc, & Pramoolsook, 2012).

Looking at how extensive the literature is on research that involves the move analysis of the research article abstract in view of disciplinary and language perspectives and despite this paper's attempts to uncover as much relevant research, move analysis research on abstracts remains to be an appealing topic because different fields may and will continue to have their own abstract-writing conventions. As such, from the research surveyed in this paper, it is possible that there remains a dearth of research that deals with cross-disciplinary abstracts written by Arabic speakers in journals published in the Middle Eastern region. This observation is shared in Fallatah's (2016) study where it is mentioned that there are very few studies that deal with the features of English as spoken by Arab speakers in the Arab world, thus making this venture an understudied area of research that requires further investigation from different angles and within various perspectives.

From this research gap, the following research questions and subquestions are then crafted:

1. Are the moves in this study's research article abstracts in the discipline of applied linguistics similar to or different from the pattern of Hyland's (2000) Introduction (I), Purpose (P), Method (M), Product (Pr), Conclusion (C) move structure?
2. What are the moves prevalent across the corpus of abstracts collected from the discipline of applied linguistics?

3. Are there any irregular move structures observed across the corpora of all abstracts from the applied linguistics corpora? If yes, what are their descriptions?

2. Method

This study features three methodological stages: corpus collection, data gathering, and corpus analysis.

2.1 Corpus Collection

This paper is a portion of a broader study that analyzed the moves of research article abstracts from a corpora of 89 research articles drawn from the fields of applied linguistics, engineering, and law. For this paper, the focus was on presenting research findings from the field of applied linguistics. The corpus was composed of 29 semi-randomly selected research article abstracts published in online research journals from the said field. In general, these journals were selected by virtue of either their name's association with the words 'Arab' and 'Middle East,' or place of publication in the Middle East and North African (MENA) region.

All the abstracts in this study are written in the English language; however, since this study required that the abstracts are written by Arabic speakers, the process of semi-random collection denotes that abstracts written by authors with English and other non-Arabic names were not selected. In addition to the selection of abstracts based on the Arabic names of the writers, the semi-random selection of these abstracts was further based on Arsyad's (2014) research that highlights the collection of abstracts published between 2014 and 2017. This has been replicated for the present study to help ensure that this research reflects current trends.

It is also worth-noting that all these journals claim to be peer-reviewed international journals as indicated in their respective websites. These journals are briefly described below (with information directly quoted from their respective websites).

1. *Arab Journal of Applied Linguistics* (http://www.arjals.com/ojs/index.php/Arjals2016)
   The Arab Journal of Applied Linguistics (AJAL) is a biannual, peer-reviewed, and open access journal devoted to the study of languages in the Arab world from different disciplinary perspectives, including education, language pedagogy, language planning and policies, sociology, psychology, information technology, translation, and speech and hearing.
   The Arab world refers to those countries that recognise Arabic as their official language. They cover a large geographical zone, extending from Mauritania in North Africa to Bahrain in the

Middle East, with a population exceeding 400 million inhabitants. Though they share historical, religious, and linguistic traits, the Arab countries manifest degrees of linguistic, cultural, and ethnographic variation. Their language policies are by no means uniform, especially when it comes to the teaching and learning of foreign languages.

2. *Arab World English Journal* (http://www.awej.org/)
Arab World English Journal (AWEJ) is a refereed, double blind peer reviewed in which both authors and referees are anonymous, and open-access e-journal for scholars, researchers, teachers, and officials of the English language in and beyond the Arab World in the 21st century. Submissions are invited by those either teaching and learning in the Arab World, and also by those who have written papers about language education which are of either direct or indirect relevance to those teaching and learning in the Arab World.
AWEJ is a nonprofit journal whose goal is to promote the learning and teaching of English in the Arab World. AWEJ will publish papers either directly related to this focus or associated areas of language education such as literature, linguistics, translation studies, culture, media, and computer-assisted or online education.
3. *Language and Linguistics Journal* (http://y.ennaji.free.fr/)
Languages and Linguistics is a world forum for the study of languages and society, with a special focus on the languages in Africa. The journal brings together research from different traditions, publishing significant work in English and French on the areas of phonology, morphology, syntax, lexis and semantics, sociolinguistics, pragmatics, discourse analysis, applied linguistics, language acquisition, computational linguistics and variation and comparative studies.
The existing linguistics journals do not discuss all facets of language and linguistics and hardly refer to the particular linguistic situation in Africa, with its various dialects, its large linguistic communities and the recent developments of the languages in contact. "Languages and Linguistics" invites scholars to submit articles on any area of linguistic science that is of relevance to the work of Modern Languages Departments.

This study also assumed that all research article abstracts underwent standard editing and reviewing procedures, as indicated in the journals' websites, and it is hence assumed that all the abstracts selected in this study conformed to their respective journals' publication guidelines on content, word count, and style that correspond to any linguistics features and text structures. These suppositions are based on the journals' descriptions, which mention

that these journals are peer-reviewed and that the publishers employ editorial teams and reviewers.

Regarding the rationale for identifying the journals that would then become the sources of the abstracts in this corpus, while a number of other relevant research in move analysis would tend to collect texts from journals with high-impact factors, the author of this study attempted to do the same, but the online search for journals based in the MENA region was tedious because as observed, MENA-based journals in applied linguistics seem limited, so it was hardly possible to locate MENA-based journals with high-impact factors. In addition, from the three journal groups selected, the author of this study had to select only the research articles written by authors with Arabic-sounding names. As such, the author's difficulty in locating applied linguistics journals based in the MENA-region coincides with Fallatah's (2016) observation, which notes that there appears to be a gap in research that generally deals with features of English produced by Arabic speakers. This gap in research coming from the MENA region therefore would possibly translate to the lack of a substantial body of research. Hence, during the particular research's corpus-building phase, this lack of a substantial body of journals on applied linguistics research published in the MENA region was made evident as basic Google searches using the following terms 'Journals, Applied Linguistics, MENA region' would either reveal books on applied linguistics in MENA or journals that are not based in the MENA region. As such, the author of this study admits that it has been difficult to source journal articles published in the MENA region as a result of the scarcity of these journals. As a result, this scarcity resulted in the author being able to collect only a limited number of abstracts for this study's corpus (i.e., 29).

Despite this study's small corpus size, it can also be noted that a number of move analysis studies published in other online peer-reviewed journals do not necessarily demand the creation of a large corpus size. Recent peer-reviewed published studies such as those of Li (2011) who used 40 abstracts, Arsyad (2014) who utilized a corpus size of 30 RA abstracts, Basthomi (2006) who used 17 abstracts, Cross and Oppenheim (2006) who had 12 abstracts, Kanoksilapatham (2015) who collected 60 abstracts, Darabad (2016) who analyzed 21 abstracts, and Fallatah (2016) who used 37 Saudi-English abstracts, among others demonstrate that even though it is an ideal method for a large-scale corpus to be used, smaller-sized specialized corpora can still be used, as the studies above suggest, not just to help generate conclusions but also to propel further and broader research.

Further to this corpus being limited to 29 abstracts, it may be a consensus that a bigger corpus will lead to stronger representations of a particular language feature, but in a specialized corpus such as this, which, in turn, is narrowed down as a result of factors beyond the researcher's control (e.g., limitations in the number of journals), it is hoped that the results of this study will help shed light on how abstracts in applied linguistics are written in this particular region, while also encouraging more researchers to help expand the knowledge in this area of inquiry through the identification of more MENA-based journals and the subsequent creation of more extensive corpora.

2.2 Data Gathering

After collecting 29 research article abstracts in applied linguistics, each of the abstracts in the corpus was read at least twice for the purpose of determining its moves based on the move nomenclature (i.e., Introduction [I], Purpose [P], Method [M], Product [Pr], and Conclusion [C]) (Hyland, 2000).

Each abstract was analyzed on a per-clause or -simple-sentence basis. Each clause or simple sentence was labelled as a T-unit. The clause or the simple sentence was considered as the smallest unit of analysis in this study because it is unlikely that two or more moves can be detected in one clause considering that a clause should have only one topic or subject and one comment or predicate (Arsyad, 2014).

In analyzing each T-unit, the move or move unit as Darabad (2016) terms it, based on Hyland's (2000) abstract move framework, was identified by using any of the following clues: linguistic and discourse clues; formulaic expressions; specific lexical items; cohesive markers, through inferences of information in the text; and other clues such as subtitles, sections, paragraphs, and so on (Arsyad, 2014).

Even though previous research has developed a number of moves from research article abstracts, especially that of Swales' (1990) CARS model, which can be applied not only in introduction sections but also in abstracts as revealed in Bhatia's (1997) and Samraj's (2005) studies, Hyland's (2000) framework of moves (see Table 2) was selected for this study because of its elaborate identification of the moves and the specific functions inherent in research article abstracts. Likewise, Hyland's model has been extensively used in a number of research, therefore making it the primary choice for analyzing the present study's corpus.

Table 2
Hyland's (2000, p. 67) framework on research article abstracts

Move	Function
Introduction	Establishes context of the paper and motivates the research
Purpose	Indicates purpose, outlines the aims behind the paper
Method	Provides information on design, procedures, data analysis, etc.
Product	Indicates results and the argument
Conclusion	Points to applications or wider implications and interpretation of scope of paper

After identifying the moves in each abstract's T-units, the moves were recorded in a form (see Appendix A) and then saved for corpus analysis.

2.3 Corpus Analysis

The primary task of analyzing the corpora is detailed into the following methods:

1. Identification of any move patterns using Hyland's (2000) move structure framework
2. Identification of the moves prevalent across the corpus of abstracts collected from applied linguistics journals
3. Identification of the frequencies and calculation of percentages of sentences that reflect any of Hyland's I-P-M-Pr-C moves in each journal corpus of abstracts collected from the discipline
4. Comparison of identified moves across the three journals in applied linguistics
5. Identification of any peculiar move patterns such as mixed moves

Based on the above steps, the analysis of the abstracts in this study was patterned after Kanoksilapatham's (2009b, 2013) work where the abstracts were analyzed to identify only the moves. Moreover, in identifying the moves prevalent across the corpora, each of the moves that were identified using Hyland's (2000) move structure was manually counted and recorded in tables (see Appendix A).

Appendix A presents a sample of three abstracts analyzed in this study. To maintain confidentiality, the names of the research article writers were marked with (XXX) although the titles of the abstracts and the publication details were not masked in order to facilitate easier crosschecking.

The present study used two approaches in identifying the moves prevalent across each journal corpus:

1. The first approach involves counting the frequencies of each move across all the abstracts in each journal corpus (Method Approach 1). The move with the highest count is considered as the most prevalent, while the move with the lowest count is considered as the least.
2. The second approach involves identifying which moves are prevalent in each journal corpus by determining the frequencies and percentages of sentences that demonstrate each of the moves (Method Approach 2). This count or frequency of occurrence of each sentence that reflects a move is reported and calculated into percentages (Kanoksilapatham, 2013).

After all the moves were determined from all the abstracts, a comparison was made to identify any move similarities or differences. Lastly, the moves identified and recorded in tables (see Appendix A) were also examined for the presence of any irregular move patterns, specifically any occurrences of mixed moves.

The underlying methodology of this study drew inspiration from Arsyad (2014) where a comparative descriptive method of analyzing research article abstracts from multiple disciplines (i.e., applied linguistics, engineering, and law) was adopted. This methodological approach comparing English abstracts across three journals in applied linguistics and selecting abstracts published in international journals such as the ones mentioned above is considered to be a prevalent approach because the findings gathered from studies of this nature greatly influence the teaching of English academic writing, especially in English as a Foreign Language and Second Language (EFL/ESL) contexts (Connor, Nagelhout, & Rozycki, 2008).

2.4 Methodological Limitations

Despite any methodology that may be grounded on previous research, this study also notes some limitations that future researchers can consider when crafting their own methodologies. The limitations vis-à-vis the researcher's attempts at minimizing some of the effects of these limitations are noted below.

1. The absence of an intercoder(s)
   The analyses in this study were solely conducted by the researcher. Hence, this author risks the possibility of biases and/or errors, especially in the identification of moves in each abstract.

   Having intercoders is an important method to ensure that trends are objectively identified. Despite its importance, a number of published studies on move analysis of abstracts (e.g., Darabad, 2016; Ghasempour & Farnia, 2017; Kanoksilapatham, 2013, 2015) did not specifically mention the process of intercoding when move analysis research was conducted.

   In the context of this study, inasmuch as the author was aware of using inter-coders, he likewise had difficulty identifying a colleague or colleagues who would be willing to intercode a total of 89 Abstracts, much less 29 abstracts for applied linguistics.

   Nonetheless, to help minimize incidences of biases and/or errors in identifying the moves, the researcher performed the following:

   a. Read each abstract in the corpora twice to help ensure that the moves were correctly identified
   b. Used any of the following clues to help determine the moves: linguistic and discourse clues; formulaic expressions; specific lexical items; cohesive markers, through inferences of information in a text; and other clues such as subtitles, sections, paragraphs, and so on (Arsyad, 2014)

Some examples of actual clues taken from the corpus, which helped the author in identifying the moves, are indicated in Table 3.

Table 3
Hyland's (2000) framework on research article abstracts and samples of linguistic features identified from the corpus

Move	Examples
Introduction	Background information on the topic
Purpose	This study investigates … The aim of the current study was … This present paper analyses …
Method	These tests were administered to … The … was examined. We conducted… analyses …
Product	The results of the … tests showed … These findings lend support for … Longitudinal results indicated …
Conclusion	Implications for research and pedagogy are presented. A need for further research into this area … Implications for future research on … were also discussed.

2. The absence of more advanced statistical analyses
   This study only used basic descriptive quantitative measurements such as frequency counts and percentage calculations. Although several of the research cited in this paper also used descriptive statistical measurements such as frequency counts, the use of more advanced statistical tests such as the chi-square test (Hwang, Nguyen, & Su, 2017) or mutliple t-tests (Kanoksilapatham, 2015) in future studies can help in producing statistically sound results. However, as observed in other relevant research, basic frequency counts and percentage calculations appear to be acceptable quantitative means as well.
3. The absence of ways on determining if the writers selected for the corpus are speakers of Arabic
   This study assumed that the authors are Arabic speakers by virtue of the research article authors' Arabic surnames (e.g., Qassem, Sircar, Shaalan, Fahim, among others) and their educational affiliations' geographic locations in the MENA region (e.g., Yemen, Qatar, Egypt, among others). Moreover, in the progress of this research, the author made attempts at communicating with the journals' contacts to determine the first languages of the authors, but no responses were received thus far.

4. As for the coverage, this study focused only on identifying the moves in the studied abstracts. Hence, other aspects, such as the linguistic features that influence the form of the moves, as well as any cultural aspects that influence the writers and how they write their abstracts, are attractive paths for future research.

3. Results and Discussion

Before proceeding to the results, owing to methodological limitations, which the author attempted to address, readers will do well to approach the results of this study with caution. Nonetheless, it is hoped that any new knowledge generated will help broaden the body of knowledge in move analysis research in general and that of the MENA context in particular.

In the field of applied linguistics, three research journals were analyzed. Two of these journals were represented by ten abstracts with the exemption of the *Arab Journal of Applied Linguistics*, which had only nine abstracts, the reason for which is mentioned in the section that immediately follows. Each of these abstracts was analysed for the moves identified in each sentence or T-unit. The moves identified were, in turn, analyzed in terms of their prevalence across the corpus of abstracts (Method Approach 1) and their frequencies across all the sentences in the corpus (Method Approach 2). Any irregular move patterns (i.e., mixed moves) were also determined by underlining the moves (e.g., P-M-Pr-C) as exemplified in Table 4.

The following subsections detail the results of the present study:

Arab Journal of Applied Linguistics

The corpus of the *Arab Journal of Applied Linguistics* covered nine abstracts taken out of nine research articles published over two volumes in 2017. The reason why there were only nine abstracts is because the publication commenced in 2017 and has so far published three volumes. During the abstract-gathering stage of this study, four abstracts from Volume 1, which corresponded to four research articles, and five abstracts for Volume 2, which corresponded to five research articles were available and hence collected. Volume 3 was not yet published during the abstract-gathering stage, so no abstracts were collected in that regard.

Table 4 shows the moves identified from a T-unit or sentence-level analysis of each of the nine abstracts from this journal. In the said table, the following labels were assigned to each move (Hyland, 2000):

I - Introduction
P - Purpose
M - Method
Pr - Product
C - Conclusion

Table 4
Moves identified from abstracts selected from the Arab Journal of Applied Linguistics

Abstract Number	Number of Sentences	Number of Words	Moves
1	5	113	P-Pr-Pr-Pr-P
2	3	105	P-M-Pr-C
3	7	162	P-I-M-Pr-Pr-Pr-C
4	6	118	I-I-P-M-Pr-C
5	9	176	I-I-I-P-M-M-M-Pr-C
6	5	182	P-I-I-P-Pr-Pr-P-Pr
7	6	132	P-M-M-M-Pr-Pr-C
8	11	197	I-I-I-P-M-M-Pr-Pr-Pr-Pr-Pr-C
9	6	146	P-M-Pr-Pr-Pr-Pr
Total number of words in the corpus		1331	
Average number of words/abstract		147	
Average number of words/sentence	22.9		
Total number of sentences	58		
Average number of sentences/abstract	5.8		

The following observations are noted on all nine abstracts:

From the corpus of nine abstracts, only three (i.e., Abstracts 4, 5, and 8) followed Hyland's (2000) I-P-M-Pr-C move sequence, and these have considerable lengths in terms of their word counts (i.e., 118, 176, and 197 words, respectively). This suggests that longer abstracts will typically feature the I-P-M-Pr-C move sequence, although another equally lengthy abstract (i.e., Abstract 6) did not follow the said sequence (i.e., P-I-I-P-Pr-Pr-P-Pr).

On a per-move analysis across the journal corpus, four abstracts, which account for 44% of the total number of abstracts, hardly utilized the introduction move (i.e., Abstracts 1, 2, 7, and 9), but all of them used the purpose move as well as the product move. On the other hand, the method move was observed in six abstracts (i.e., Abstracts 2, 3, 4, 5, 7, and 8) to account for 66% of all abstracts. Lastly, all the abstracts, except for Abstracts 1, 6, and 9, employed the conclusion move, which accounted for 66% of all abstracts. Based upon the data analyzed, it can be deduced that the prevalence of moves across the corpus in the order of most prevalent to the least are Purpose (P), Method (M), Product (Pr), Conclusion (C), and (I) Introduction (Method Approach 1).

Table 5, meanwhile, presents the frequency (i.e., number of sentences exhibiting the move) and percentages of each move vis-à-vis the total number of sentences in the corpus.

From the perspective of examining the moves and determining the frequencies of sentences that reveal each move, it can be seen that the Product (Pr) move is the most dominant as this was observed in 22 sentences. This is evident, for example, in Abstracts 1, 8, and 9 where the product move was observed in as many as three, five, and four sentences, respectively. The Purpose (P) move has the next highest percentage among the other moves, followed by the Method (M) move, which has the same percentage as that of the Introduction (I) move (Method Approach 2).

Table 5
Frequency of moves in the abstracts of the Arab Journal of Applied Linguistics

Move	Frequency	Percentage in the Corpus (%)
Introduction (I)	11	18.9
Purpose (P)	12	20
Method (M)	11	18.9
Product (Pr)	22	37.9
Conclusion (C)	6	10

As such, based on the most frequent moves as they occurred among all the sentences, it can be observed that the writers in the corpus have put the highest emphasis on presenting the results of their research in the form of the product move. The Purpose (P) move was also accorded more importance in the corpus. This observation jibes with one reason why abstracts are important and that is to immediately convey the results of a research to readers who might not have enough time to read the entire body of the paper.

Another observation worth-noting from the table above is that a move is typically observed in each sentence. In other words, from this particular corpus, there is typically a one-to-one correspondence between a sentence and a move. This phenomenon was observed in Abstracts 1, 3, 4, 5, and 9. However, there are also abstracts (i.e., 2, 6, 7, and 8) which have a sentence that has two or three moves in it. This observation can be noted in Table 4 where certain moves are underlined together to indicate a combination of moves in one sentence. Excerpts of those sentences and their abstract numbers are specified below.

Abstract 2:

The results of the four language tests showed high levels of reliability and validity and *support the usefulness of these tools to diagnose children with SLI, whose performance on the tests was mostly consistent with findings in other languages.*	Product: Indicates results *Conclusion: Points to implications*

From the above excerpt, sentence number 3, with its length (composed of 39 words), reveals a combination of the Product move (underlined) and the Conclusion move, which is *italicized*.

The same combination of moves in one lengthy sentence can also be observed in Abstract 6, which features a combination of three moves (**Introduction**, Purpose, and *Product*) in one lengthy sentence, as can be seen in the following excerpt:

Abstract 6:

With a special focus on Tunisia, where diglossia and bilingualism are part of the students' linguistic reality, this paper argues *that surmounting the initial marginalization of the native vernacular in favor of literacy in Standard Arabic does not seem to be enough of a guarantee for academic success since competence in French becomes indispensable as students move higher up the educational ladder.*	**Introduction: Establishes context** Purpose: Indicates purpose *Product: Indicates argument*

A plausible explanation to this phenomenon where mixed moves were observed in four sentences in the corpus is that this specific journal (i.e., *Arab Journal of Applied Linguistics*) has an average sentence number of only 6.4 sentences (see Table 4). Moreover, the average number of words of the studied abstracts is only 147 words, and the average number of words per sentence is 22.9. This length, in contrast to other applied linguistics corpora in this study, is short. This short length of abstracts may be dictated by one of the journal's author guidelines, which mentions that "Manuscripts should not exceed 9,000 words, including figures, tables and references." Likewise, the journal itself has a word-count range of 150 to 250 words for the abstract, so this range may have influenced the writing of sentences that exhibit mixed moves.

Arab World English Journal

The corpus from the *Arab World English Journal* was composed of ten research article abstracts. The research articles were written in 2017. Eight of these abstracts were from research articles published under Volume 8, Issue 1, while two were published in 2016 under Volume 7, Issue 4.

Table 6 indicates the moves identified from a T-unit or sentence-level analysis of each of the ten abstracts from this journal. The moves were labelled following the same convention as that presented from the first journal.

Following the pattern of discussion made previously, the abstracts from the *Arab World English Journal* revealed that Hyland's I-P-M-Pr-C sequence was observed in only three out of ten research articles. Similar to the observation in Table 4, it is apparent that abstracts following the I-P-M-Pr-C sequence are typically longer as evidenced by Abstract 5, 6, and 8.

On the other hand, the per-move analysis across this corpus revealed that the Introduction (I) move was observed in seven of the ten abstracts to account for 70% of the entire corpus. The Purpose (P) move was employed in all the corpus, while the Method (M) move was used in 90% of the corpus. This percentage (90%) is the same for the Product (Pr) move, and the Conclusion (C) move was utilized in only 40% of the corpus. From these data, it can be surmised that the most prevalent moves in the corpus (in the order of highest to lowest) are Purpose (P), Method (M), Product (Pr), and Introduction (I), while the Conclusion (C) move was hardly observed in more than half of the corpus. The use of the I-P-M and Pr moves in the corpus of this journal clearly follows the I-P-M-Pr-C structure of Hyland (2000) although the noticeable absence of the Conclusion (C) move deserves some notice as well (Method Approach 1). Also, in contrast to the corpus in Table 4, the abstracts in this journal are clearly longer as exemplified in the figures (i.e., 1938 words) in Table 6.

Table 6
Moves identified from abstracts selected from the Arab World English Journal

Abstract Number	Number of Sentences	Number of Words	Moves
1	11	217	P-P-M-M-M-M-M-M-M-Pr-Pr-Pr
2	7	207	I-I-I-I-P-M-Pr
3	5	124	I-P-P-M-M-Pr
4	12	163	P-M-M-M-M-M-Pr-Pr-Pr-Pr-Pr-C
5	11	249	I-P-P-M-M-M-M-M-Pr-C-C

Table 6 continued...

Abstract Number	Number of Sentences	Number of Words	Moves
6	11	249	I-I-M-P-M-M-M-Pr-Pr-Pr-Pr-C
7	10	247	P-P-M-M-Pr-Pr-M-Pr-Pr
8	8	150	I-P-P-M-P-Pr-Pr-Pr-C
9	7	191	I-I-I-I-I-P-P
10	6	141	I-I-P-M-Pr-Pr
Total number of words in the corpus		1938	
Average number of words/abstract		193.8	
Average number of words/sentence	22		
Total number of sentences	88		
Average number of sentences/abstract	8.8		

Table 7 presents the frequency of moves in the abstracts of the *Arab World English Journal* in terms of the number of sentences where the moves were observed.

Examining the percentage of each move across the total number of sentences in the corpus reveals the prevalence of the moves in this order (from highest to lowest): Method (M), Product (Pr), Purpose (P), Introduction (I), and Conclusion (C). From these percentages, it can be seen that the writers of these research article abstracts utilized the Method (M) and Product (Pr) moves more frequently than the other moves (Method Approach 2). This observation would suggest the significance of laying down a clear foundation for the clear, concise, but effective writing of the methodologies of a research as well as the results or the product of the research, which, as previously noted, are important abstract sections that readers tend to look for. Moreover, ascribing to specified word limits (i.e., 150 and 250 words in length) in writing abstracts, it is apparent that longer abstracts allow writers to include detailed information on methodologies and product (results).

Table 7
Frequency of moves in the abstracts of the Arab World English Journal

Move	Frequency	Percentage in the Corpus (%)
Introduction (I)	16	18.1
Purpose (P)	17	19.3
Method (M)	29	32.9
Product (Pr)	24	27.2
Conclusion (C)	5	5.6

Languages and Linguistics Journal

The research article abstracts from the *Language and Linguistics Journal* is the last corpus in this study.

The research articles where the abstracts in this corpus were obtained were published as issue numbers 35 and 36 in the 2015 edition of the journal titled "Langues Et Linguistique: Languages and Linguistics."

Table 8 presents the moves identified from this corpus.

Table 8
Moves identified from abstracts selected from the Languages and Linguistics Journal

Abstract Number	Number of Sentences	Number of words	Moves
1	5	134	I-P-M-M-Pr
2	4	99	P-P-M-Pr
3	5	85	I-M-M-M-Pr
4	6	139	I-I-I-M-C-C
5	4	63	M-Pr-M-C
6	2	57	P-Pr
7	2	45	P-M-M
8	7	183	I-M-M-M-Pr-Pr-C-C
9	7	212	P-M-Pr-Pr-Pr-C-C
10	4	123	I-I-Pr-C-C

Table 8 continued...

Abstract Number	Number of Sentences	Number of words	Moves
Total number of words in the corpus		1140	
Average number of words/abstract		114	
Average number of words/sentence	22		
Total number of sentences	46		
Average number of sentences/abstract	4.6		

Based on the corpus of abstracts from the *Languages and Linguistics Journal*, it can be observed that none of these abstracts exactly followed Hyland's sequence of I-P-M-Pr-C moves although the individual moves were still observable.

On a per-move basis, the Introduction (I) move was observed in 50% of the corpus; the Purpose (P) move was also employed in half of the corpus. Both the Method (M) and the Product (Pr) moves were recorded in 80% of the studied corpus, and the Conclusion (C) move was used in 50% of the abstracts as well.

As such, the most dominant were the Method (M) and the Product (Pr) moves, followed by the Introduction (I), Purpose (P), and Conclusion (C) moves (Method Approach 1). Comparing the corpus from this journal with those of the other two journals, it is worth-noting that the abstracts from the *Languages and Linguistics Journal* have the lowest average number of sentences per abstract (i.e., 4.6 sentences). Owing then to the relatively short nature of the abstracts, this may have influenced the writers to place more emphasis on writing the Method (M) and Product (Pr) moves although what is peculiar about this corpus is that the other moves, namely Introduction (I), Purpose (P), and Conclusion (C), were also apparent in half of the corpus.

The frequency of moves in terms of the number of sentences where the moves were observed is presented in Table 9.

Table 9
Frequency of moves in the abstracts of the Languages and Linguistics Journal

Move	Frequency	Percentage in the Corpus (%)
Introduction (I)	8	17.3
Purpose (P)	6	13
Method (M)	15	32.6
Product (Pr)	11	23.9
Conclusion (C)	9	19.5

Based on the above data, it is apparent that the Method (M) move was the most prevalent among the corpus, followed by the Product (Pr) and the Conclusion (C) moves. These moves are then followed by the Introduction (I) and the Purpose (P) moves (Method Approach 2). On the other hand, no mixed moves were identified from this journal corpus.

Overall Comparisons of the Abstracts Across the Three Applied Linguistics Journals

Table 10 presents an overview of the observed moves in terms of prevalence across the respective journals.

Table 10
Comparison of moves across the three applied linguistics journals

Journal	Moves
Arab Journal of Applied Linguistics	P-M-Pr-C-I
Arab World English Journal	P-M-Pr-I-C
Languages and Linguistics	M-Pr-I-P-C Direction of Prevalence (Most to least)

Looking at Table 10 above and also consolidating the observations made from previous tables, the following assumptions can be made about the characteristics of moves from a corpus of applied linguistics journals published in the Middle East and North African (MENA) region from 2014 to 2017:

1. Of the three corpora of applied linguistics journals, only three abstracts out of 29 featured the complete and sequenced I-P-M-Pr-C structure developed by Hyland (2000). This finding suggests that abstracts from these corpora of MENA-based applied linguistics journals may reflect the moves, but they are not necessarily sequenced according to Hyland's structure nor will they feature all the moves (Research Question 1). As such, instead of debunking Hyland's structure, this study suggests that Hyland's structure is meant to neither prescribe nor impose but most likely to simply enumerate the moves that can be observed in abstracts, and from there, authors can write abstracts with move combinations depending on specific factors such as prescribed abstract and manuscript lengths.
2. Of the three corpora, the first two (i.e., *Arab Journal of Applied Linguistics* and *Arab World English Journal*) demonstrate that the three moves, namely Purpose (P), Method (M), and Product (Pr), are considered as more prevalent compared with the Introduction and Conclusion moves (Research Question 2). This finding seems similar to those revealed in previous research: Bhatia's (1993) study which demonstrated that the abstract should consist of the aim, the method, the findings, and the conclusion; Santos's (1996) which discovered that moves 2 and 3, namely Describing the Methodology and Summarizing the Results, were obligatory among 94 research article abstracts; Paltridge and Starfield's (2007) which posited that the abstract has the main aims, specific objectives, reasons, processes, and results; Tseng's (2011) which observed that a four-move structure, namely aim, method, results, and conclusion, was more preferred by a majority of writers, but only a few abstracts would include the background or introduction move in the beginning; Arsyad's (2014) which noted that in abstracts written in the fields of social sciences and humanities, a majority had only three moves: purpose, method, and results; and Darabad's (2016) which, using a corpus of abstracts in applied linguistics, demonstrated that the least frequent move was "Introduction," while the most frequent ones were purpose, method, product (results), and conclusion. Hence, this and all the other findings previously mentioned seem to suggest that writers of abstracts will tend to foreground specific moves such as Purpose (P), Method (M), and Product (Pr), and background the Introduction (I) and Conclusion (C) moves. With respect to possibilities of a link between contexts of culture, ethnicity, or even the first language(s) of the writers, the findings of the present study reveal that abstracts still generally feature the dominance of the P, M, and Pr moves, as with other relevant research, and that cultural and geographical

nuances seem to have no influence on such a phenomenon. Can, Karabacak, and Qin (2016) echo the results of this study and explain the possibilities for this pattern of abstract moves:

> The findings of the present and previous studies show that authors discuss results, purpose, and methodology in their abstracts more than implications of the findings or background information. Authors are well aware of the fact that they need to use the allowed space economically. Background information about the topic is the first to be omitted by writers in AL (Applied Linguistics, emphasis mine), and thus it seems to be the only move in the optional category, being disregarded in more than half of the sampled abstracts. Overall, purpose, methodology, results, and implications of results are conventional, appearing in most AL abstracts. (p. 14)

Furthermore, it can be inferred that the Introduction (I) and/or the Conclusion (C) moves were the least observed among the first two corpora because it is generally assumed that the bulk of the introduction is found in the body of the research itself and not in the abstract. As with the Conclusion (C) move, this was written in only six out of a total of 58 sentences in the first corpus and in only five out of 88 sentences in the second corpus because it typically employs statements that discuss implications, which are explicated thoroughly in the body.

Finally, although the third corpus (i.e., *Languages and Linguistics Journal*) may have a rather different order of prevalence than the first two, it nonetheless supports the contention that the Method (M) and the Product (Pr) moves remain to be two of the more prevalent moves in the analyzed corpus of applied linguistics abstracts.

3. In terms of irregular moves, it can be deduced that mixed moves, for example, can be an effect of a journal's submission guidelines on abstract lengths. Hence, with shorter abstracts, writers tend to mix moves in one sentence in order to meet the journal's maximum word limit. These mixed moves are described in sentences that have combinations of Introduction, Purpose, and Product or Purpose and Method as results in Tables 4 and 6 reveal (Research Question 3).

4. Conclusion

To conclude, this study used Hyland's (2000) Introduction (I), Purpose (P), Method (M), Product (Pr), and Conclusion (C) move sequence to describe the moves of 29 MENA-based journal abstracts in applied linguistics. To summarize, the abstracts collected from the corpus typically showed the Purpose (P), Method (M), and Product (Pr) moves as the more frequently used, while the Introduction (I) and Conclusion (C) moves tend to be the least commonly employed, especially with the case of the *Arab Journal of Applied Linguistics* and the *Arab World English Journal*. As noted earlier, this result is similar to a number of related research on the moves of abstracts, hence a reflection of the implication that writers' choice of highlighting the P, M, and Pr moves is more of a pattern observed in a majority of abstracts in applied linguistics and that geographical origins (i.e., MENA) have little influence on it.

While it may have been tempting to try to discover if there are any cultural or ethnic nuances on why the abstracts in the studied corpus typically demonstrated the P-M-Pr moves as more frequent than the introduction and conclusion moves, the researcher believes that the moves of these abstracts are more of a reflection of the homogenous nature of abstracts in applied linguistics (Darabad, 2016).

In addition, unless future research that investigates the influence of cultural norms and/or ethnicity on researchers' writing styles are conducted, the author, at this juncture, maintains that neither ethnicity nor geographical location does play a major role in determining the moves in the abstract writers would capitulate on because sample studies such as those of Tseng (2011) and Darabad's (2016) revealed that the same P-M-Pr moves frequently appear in their respective corpora, which were selected not on the basis of ethnicity or language orientation, but on the journals' names (e.g., *TESOL Quarterly*, *The Modern Language Journal*, and *Applied Linguistics*).

4.1 Implications for English Language Teaching

In view of the results of the present study, pedagogical implications signify that language planners, school administrators, course coordinators, and eventually teachers must seriously consider that there needs to be an effort at teaching students and even lecturers the rhetorical structures or moves of the different sections of a research article starting with the abstract (Suharno, 2001). Apart from teaching the students the moves of abstracts, it is also worth-considering for them to be exposed to abstracts as they appear in applied linguistics research articles. Likewise, it may be important, as a means of expansion, that students in an English for Academic Purposes (EAP) class be taught the standard formats of abstracts vis-à-vis the students' area of discipline (e.g., applied linguistics, engineering, law, business). Doing this, according to Suharno (2001), can help boost students' confidence when writing for their majors or disciplines.

There is also a plethora of research possibilities outside of analyzing the moves of abstracts. Some of the other future research directions include the use of the Analytic Framework of Context Frames (Ebrahimi & Motlagh, 2017), study of authorial stance (Pho,

2008), analysis of the evaluative "that" in Abstracts from diverse disciplines, identification and analysis of linguistic features of hedging and boosting across disciplines and languages (Hu & Cao, 2011), and analysis of grammatical features such as verb tenses (Arsyad, 2014; Tseng, 2011) of each move, among other options.

Therefore, regardless of the approach taken in doing any relevant future research, the analysis of move patterns in abstracts remains to be an attractive research focus. As such, any research undertaken in this regard should always find its place in the teaching of writing in the classroom.

References

Arsyad, S. (2014). The discourse structure and linguistic features of research article abstracts in English by Indonesian academics. *The Asian ESP Journal*, *10*(2), 191-223.

Basthomi, Y. (2006). The rhetoric of article abstracts: A sweep through the literature and a preliminary study. *Bahasa dan Seni, 34*(1)*,* 174-190.

Belcher, W. (2009). *Writing journal article in 12 weeks: A guide to academic publishing success.* SAGE Publication, Inc.

Bhatia, V.K. (1994). *Analysing genre: Language use in professional settings.* Longman.

Bhatia, V.K. (1997). Introduction: Genre analysis and World Englishes. *World Englishes*, *16*(3), 313-319.

Biber, B., & Conrad, S. (2009). *Register, genre, and style.* Cambridge University Press.

Can, S., Karabacak, E., & Qin, J. (2016). Structure of moves in research article abstracts in applied linguistics. *Publications, 4*(23), 1-16.

Connor, U., Nagelhout, E., & Rozycki, W. (2008). Introduction. In U. Connor, E. Nagelhout, & W. Rozycki (Eds.), *Contrastive rhetoric: Reaching to intercultural rhetoric* (pp. 1-8)*.* John Benjamins Publishing Company.

Cross, C., & Oppenheim, C. (2006). A genre analysis of scientific abstracts. *Journal of Documentation*, *62*, 428-446.

Darabad, A. (2016). Move analysis of research article abstracts: A cross-disciplinary study. *International Journal of Linguistics*, *8*(2), 125-140.

Ebrahimi, S., & Motlagh, H.S. (2017). A cross-disciplinary and linguistic study of context frames in research article abstracts. *Research in English Language Pedagogy*, *5*(1), 81-95.

Fairclough, N. (2005). Discourse analysis in organization studies: The case for critical realism. *Peripheral Vision, 26(1),* 915-939.

Fallatah, W. (2016). Features of Saudi English research articles abstracts. *Arab World English Journal*, *7*(2), 368-379.

Fartousi, H., & Dumanig, F. (2012). A rhetorical analysis and contrastive rhetoric of selected conference abstracts. *World Applied Sciences Journal*, *18*(4), 514-519.

Ghasempour, B., & Farnia, M. (2017). Contrastive move analysis: Persian and English research article abstracts in law. *The Journal of Teaching English for Specific and Academic Purposes, 5*(4)*,* 739-753.

Hu, G., & Cao, F. (2011). Hedging and boosting in abstracts of applied linguistics articles: A comparative study of English and Chinese-medium journals. *Journal of Pragmatics*, *43*(11), 2795-2809.

Huckin, T.N. (2001). Abstracting from abstracts. In M.H. (Ed.), *Academic writing in context* (pp. 93-102). University of Birmingham Press.

Hwang, C., Nguyen, T.-H., & Su, T.-J. (2017). Move analysis for scientific abstract sections: A study of nanoscience and nanotechnology research article abstracts. *World Transactions on Engineering and Technology Education*, *15*(1), 19-22.

Hyland, K. (2000). *Disciplinary discourses: Social interactions in academic writing.* Longman.

Hyland, K. (2004). *Disciplinary discourse: Social interactions in academic writing.* Pearson Educational Ltd.

Kanoksilapatham, B. (2009a). Generic structure of research article abstracts in sciences. *Journal of English Studies*, *4*, 95-111.

Kanoksilapatham, B. (2009b). Writing research article abstracts in engineering: Linguistic perspective. *International Conference on Science, Technology and Innovation for Sustainable Well-being* (pp. 751-755). Mahasarakham University.

Kanoksilapatham, B. (2013). Generic characterisation of civil engineering research article abstracts. *The Southeast Asian Journal of English Language Studies*, *19*(3), 1-10.

Kanoksilapatham, B. (2015). Structural organization of research article abstracts: Civil and biomedical engineering. *RMUTI Journal Special Issue*, *1*, 507-512.

Li, Y. (2011). Genre analysis of English and Chinese research article abstracts in linguistics and chemistry (Master's thesis). San Diego State University, CA.

Lores, R. (2004). On research article abstracts: From rhetorical structure to thematic organization. *English for Specific Purposes*, *23*(3), 280-302.

Melander, B., Swales, J., & Fredrickson, K.M. (1997). Journal abstracts from three academic fields in the United States and Sweden: National or disciplinary proclivities? In A. Duszak (Ed.), *Culture and style of academic discourse* (pp. 251-272). Mouton de Gruyter.

Paltridge, B., & Starfield, S. (2007). *Thesis and dissertation writing in second language: A handbook for supervisors.* Routledge.

Pho, P. (2008). Research article abstracts in applied linguistics and educational technology: A study of linguistic realizations of rhetorical structure and authorial stance. *Discourse Studies*, *10*(2), 231-250.

Pho, P. (2009). An evaluation of three different approaches to the analysis of research article abstracts. *Monash University Linguistics Papers*, 11-16.

Safnil, A. (2000). Genre structure analyses of the Indonesian research articles (Doctoral dissertation). Australian National University.

Samraj, B. (2005). An exploration of a genre set: Research article abstracts and introduction in two disciplines. *English for Specific Purposes*, *24*(2),141-156.

Santos, M. (1996). The textual organization of research paper abstracts in applied linguistics. *Text*, *16*, 481-499.

Sauperl, A., Klasinc, J., & Luzar, S. (2008). Components of abstracts: Logical structure of scholarly abstracts in pharmacology, sociology, and linguistics and literature. *Journal of the American Society for Information Science and Technology*, *59*(9), 1420-1432.

Suharno, S. (2001, July 15). *Abstract for journal article*. Retrieved from http://core.kmi.open.ac.uk/download/pdf/11703091.pdf

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

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

Swales, J., Irwin, V., & Feak, C. (2009). *Online commentary for abstracts and the writing of abstracts.* The University of Michigan.

Tseng, F. (2011). Analysis of moves structure and verb tense of research article abstracts in applied linguistics journals. *International Journal of English Linguistics*, *1*(2), 27-39.

Ventola, E. (1997). Abstracts as an object of linguistic study. In F.D.C. Cmerjrkova (Ed.), *Abstracts as an object of linguistic study* (pp. 333-352). Gunter.

Zhang, B., Thuc, T., & Pramoolsook, I. (2012). Moves and linguistic realizations: English research article abstracts by Vietnamese agricultural researchers. *The Asian ESP Journal*, *8*(3), 126-149.

Appendix A
Sample analyses

Arab Journal of Applied Linguistics

1. Imperative as root infinitive analogue in Yemeni Ibbi Arabic: Two case studies
   Arab Journal of Applied Linguistics e-ISSN 2490-4198 Vol. 2, No. 1, January, 2017, 1-19 http://www.arjals.com
   XXX and XXX

Abstract

The paper shows that children acquiring Yemeni Ibbi Arabic (henceforth referred to as YIA) go through a stage equivalent to the Root Infinitive (RI) stage found in non-null subject languages in spite of the fact that YIA is a null subject and does not have an infinitive construction. Spontaneous speech of two YIA children (2;1-2;11) showed presence of verbal inflections in 85-90% contexts. However, in a few cases, imperative forms occur in place of tensed forms, and indicate modal interpretation. We argue that the imperative form is therefore a Root Infinitive Analogue (RIA). The paper also provides evidence for a universal tendency to use non-finite forms in early stages of language development.

Sentence	**Move**
The paper shows that children acquiring Yemeni Ibbi Arabic (henceforth referred to as YIA) go through a stage equivalent to the Root Infinitive (RI) stage found in non-null subject languages in spite of the fact that YIA is a null subject and does not have an infinitive construction.	Purpose: Indicates purpose
Spontaneous speech of two YIA children (2;1-2;11) showed presence of verbal inflections in 85-90% contexts.	Product: Indicates results
However, in a few cases, imperative forms occur in place of tensed forms, and indicate modal interpretation.	Product: Indicates results
We argue that the imperative form is therefore a Root Infinitive Analogue (RIA).	Product: Indicates the argument
The paper also provides evidence for a universal tendency to use non-finite forms in early stages of language development.	Purpose: Indicates purpose

2. Reliability and validity of four Arabic language tests: A comparison of performance of Qatari school-aged children with and without language impairment
   Arab Journal of Applied Linguistics e-ISSN 2490-4198 Vol. 2, No. 1, January, 2014, 20-48 http://www.arjals.com
   XXX

Abstract

This study describes the reliability and validity of four language tests: The Sentence Comprehension Test (SCT), the Expressive Language Test (ELT), the Sentence Repetition Test (SRT), and the Arabic Picture Vocabulary Test (APVT). These tests were administered to two groups of Qatari Arabic-speaking children: A typically developing group (n=81 to 88) aged 4;6-9;4 years old and a chronologically age-matched group with specific language impairment (SLI) (n=26). The results of the four language tests showed high levels of reliability and validity and support the usefulness of these tools to diagnose children with SLI, whose performance on the tests was mostly consistent with findings in other languages.

Sentence	**Move**
This study describes the reliability and validity of four language tests: The Sentence Comprehension Test (SCT), the Expressive Language Test (ELT), the Sentence Repetition Test (SRT), and the Arabic Picture Vocabulary Test (APVT).	Purpose: Indicates purpose
These tests were administered to two groups of Qatari Arabic-speaking children: A typically developing group (n=81 to 88) aged 4;6-9;4 years old and a chronologically age-matched group with specific language impairment (SLI) (n=26).	Method: Provides information on procedure
The results of the four language tests showed high levels of reliability and validity and support the usefulness of these tools to diagnose children with SLI, whose performance on the tests was mostly consistent with findings in other languages.	Product: Indicates results Conclusion: Points to implications

3. Verb morphology in Egyptian Arabic developmental language impairment
Arab Journal of Applied Linguistics e-ISSN 2490-4198 Vol. 2, No. 1, January, 2017, 49-73
http://www.arjals.com
XXX

Abstract

This paper presents an investigation of verb morphology in the spontaneous productions of three preschool Egyptian Arabic- (EA) speaking children with language impairment (LI) and a group of typically developing children. The typological characteristics of Arabic, such as its rich morphology, lack of infinitival form and complex verb system, make it an interesting test case for determining both language specific and universal features of specific language impairment (SLI). The children's use of both tense and agreement was examined. The group with language impairment had particular problems with verb morphology. Use of default verb forms resembling the imperfective-stem and imperative was a frequent substitution error in the children's language productions. In contrast to previous cross-linguistic observations of SLI, although there was difficulty with subject-verb agreement for gender, number and person, marking for tense and aspect was not found to be as problematic for these children. The findings are examined in the context of cross-linguistic research and theories proposed for error patterns in SLI.

Sentence	**Move**
This paper presents an investigation of verb morphology in the spontaneous productions of three preschool Egyptian Arabic- (EA) speaking children with language impairment (LI) and a group of typically developing children.	Purpose: Indicates purpose
The typological characteristics of Arabic, such as its rich morphology, lack of infinitival form and complex verb system, make it an interesting test case for determining both language specific and universal features of specific language impairment (SLI).	Introduction: Establishes context of the paper Motivates the research
The children's use of both tense and agreement was examined.	Method: Provides information on procedure
The group with language impairment had particular problems with verb morphology.	Product: Indicates results
Use of default verb forms resembling the imperfective-stem and imperative was a frequent substitution error in the children's language productions.	Product: Indicates results
In contrast to previous cross-linguistic observations of SLI, although there was difficulty with subject-verb agreement for gender, number and person, marking for tense and aspect was not found to be as problematic for these children.	Product: Indicates results and argument
The findings are examined in the context of cross-linguistic research and theories proposed for error patterns in SLI.	Conclusion: Interpretation of scope of paper