Genre Analysis of Civil Engineering's Research Article Introductions

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Abstract

The present study explores the structures of Civil Engineering research articles' (RA) introductions based on Swales' 1990 CARS (Create a Research Space) model. It analyzes fifteen Civil Engineering research articles' introductions according to the move structure and linguistic features that would indicate the use and avoidance of the move. Findings show that move-pattern in RA introductions of this field follow all three moves but it does not adhere to the proposed sequence given in the model. It is suggested for enhancement of reading and writing skills and subject knowledge of ESL/EFL/ESP students, pedagogy of CARS model can play an effective role as it is still applicable.

Keywords: genre analysis, English for specific purposes, Create a Research Space (CARS) model, civil Engineering research article introductions

1. Introduction

Academic writing is one of the emerging fields as researchers from the entire world are exploring new methods, techniques and innovations in their respective fields. This growing research culture has led to the creation of an academic world. In order to join this world, students and academic writers are supposed to have prior knowledge about beliefs, values and conventions that are used by professionals in the discourse community (Swales, 1990; Duszak, 1994). English language is not only enjoying statuses as global language, official language and lingua franca, it has also established itself as the international language of research and scholarship. Due to this fact, numerous non-native English speakers are communicating in written English. According to Swales 1981, in order to be accepted and to successfully publish in the field of study, non-native English writers need to comply with the rules of conventional styles of English rhetoric.

In various countries, English is not the one's mother tongue. It is either taught as a second language or as a foreign language. Although, students learn English throughout the school years but various studies have shown observed that advanced learners at a high proficiency level of English face problems when it comes to written academic discourse at the level of organization (Cumming, 1995; Dudley-Evans, 1995; Swale, 1990). The problems encountered by non-English speakers with academic discourse have come up with better teaching methods and improved syllabus content for teaching academic writing in English in non-native English-speaking countries. Genre-based pedagogy aims at teaching of macrostructure and organization of texts and can be a wide source in terms of teaching the academic writing of English (Dudley-Evans, 1994; Swales, 1990). Genre varied in terms of their complexity and rhetorical purpose and the mode through which writer expressed. In second language writing it is important for students to have the genre knowledge as it helps in producing texts and written discourse following its convention and pattern. Notion of genre is important in ESP research and teaching. A lot of ESP genre analysis have been based on Swales' (1981, 1990) work in this area. These studies explored discourse structures and language features of research articles, masters, thesis doctoral dissertations, job application and sales promotion letters, legislative documents, the graduate seminar, academic lectures, poster session discussions, and the texts that students need to read in university courses (Paltridge, 1994, 2001; Hyland, 2004a; Swales, 1990, 2004 for reviews of this work). Research Articles are defined as academic text and are counted among genre. It is identified by "a recognizable communicative purpose and by the presence of characteristic features with standardized form, function and presentation that are part of its general conventions." (Thomas & Hawes, 1994).

1.1 Problem Statement

English is an official language of various countries including Pakistan and learners are exposed to it in their early ages. Learners, not only learn English language in school but they also study English as a compulsory subject in their graduation studies. Moreover, it is not only English language classroom where they interact with the English text, but they also get exposure to English language in different subjects because of it being the medium of instruction. Writing tasks are perceived "threats" by students when they are all of a sudden asked to compose any type of written document, may it be a letter, an application or any specialized genre such as research paper.

Tertiary level learners face difficulties when asked to write research articles in English. Although they have some command over the language owing to the exposure of English language in their educational life, yet they get apprehensive. When students, enrolled in engineering disciplines, are given task of writing research article without any guidance and its conventions, they end up with frustration and avoid taking research in their educational years. Reasons behind frustration is that they are neither told about its genre knowledge, nor they are trained into academic writing. Genre knowledge is crucial as it helps in writing especially for tertiary level students as they are supposed to write academic texts according to its disciplinary specialization at university. According to the study of Zhu (2001), English as a Foreign Language (EFL) learners or English as a Second Language (ESL) face challenges in thesis writing. Hyland (2004) found postgraduate thesis written by L2 writers a genre that continues to be somewhat of neglect, although various researches have been led in the context of EFL/ESL students with differing rhetorical structures in their L1. This leads us to the understanding that "a logical argument is thus culture bound" (Kaplan, 1966). This means what one language considers a logical argument, may not be the same in another language. Consequently, these rhetorical structure differences tend to create complications for the students of EFL/ESL in their writing although their English apparently is of high proficiency level (Nimehchisalem et al., 2016).

1.2 Justification and Importance

Studies related to research article introductions written in Arabic, English, Malay and Spanish have been explored. A lot of research studies have adopted Swales' CARS model (1990) for genre analysis of their research article introductions. Studies have shown that Swales CARS model (1990) have not only adopted for other languages research articles introduction, it has been adopted by researchers in exploring genre analysis of medical, Islamic, applied linguistics and software's engineering research article introductions but none has used for civil engineering's research article introductions. The result of this study can help in pursuing academic writing strategies for novice Civil engineering /researchers and learners who want to write in English and want to their work to be acknowledged in English academic journals. It can provide insights to civil engineering learners/ researchers in giving clear understanding of how academic writers organize academic texts.

1.3 Literature Review

Genre became a focus in the field of applied linguistics back in the 1990s, Swales gave a comprehensive definition of it in the context of English for Specific Purpose (ESP) in *Genre Analysis: English in Academic and Research Settings* (1990):

> "A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability expectations are realized, the exemplar will be viewed as a prototypical by the parent discourse community. The genre names inherited and produced by discourse communities are imported by other constitute valuable ethnographic communication, but typically need further validation." (p. 58).

Like Thomas and Hawes (1994) stated research article (RA) is a genre, it is pivotal researchers observe the generic rules and convention to produce an effective article. This results in recognition in their discipline through publication of that research work.

Thus, genre analysis has become a valuable tool in describing and connecting the linguistic features of a genre to their function and purpose. It offers a method to classify the linguistic features and the communicative strategies or moves in genres.

A significant study by Swales (1990) formed the theory of genre in ESP which concentrated on the organization

of specific sections of research article, particularly the 'introduction'. The move structure analysis is central to this approach as it requires identifying repetitive patterns generally employed to organize the text of a genre, and later linking the stages of this text-organizing pattern to particular linguistic features (Bruce, 2009). Subsequently, Swales (1990) proposed the revised version of his model, namely Create a Research Space (CARS) model that can serve as an analytical tool to examine the rhetorical structure of introductions of RA.

The modified model is included the 3 move-steps (Tongsibsong, 2012). (The detailed structure of the model is presented in the Conceptual Framework, Methodology section):

> Move 1: Establishing a territory
>
>> Step 1 Claiming centrality   and/or
>>
>> Step 2 Making topic generalization(s)   and/or
>>
>> Step 3 Reviewing items of previous research
>
> Move 2: Establishing a niche
>
>> Step 1A Counter-claimingor
>>
>> Step 1B Indicating a gap   or
>>
>> Step 1C Question-raising   or
>>
>> Step 1D continuing a tradition
>
> Move 3: Occupying the niche
>
>> Step 1A Outlining purposes   or
>>
>> Step 1B Announcing present research
>>
>> Step 2 Announcing principal findings
>>
>> Step 3 Indicating research article structure

Various researches have been conducted on the rhetorical structure of RA introductions. Samraj (2002) applied the CARS model to analyze RA introductions of two fields; Wildlife Behaviour and Conservation Biology. A greater degree of embedding was found in the analyzed texts, which was not captured by the CARS model. The findings showed reference to former literature is an element that can be found in diverse moves in the model. Moreover, the researcher found variation in steps, for e.g., "positive justification" that is not a part of CARS model. Anthony (1999) also identified the use of "evaluation step" which also is not accounted in CARS model. He found this step recurrent in all the software engineering RA introductions. Both Samraj and Anthony believed although CARS model did capture the core rhetorical organizations of the introduction, it has to be more flexible towards some variations or features that are specific to the discipline.

This study has used Swales' CARS (Create a Research Space) model (1990), shown in Figure 1, for move analysis in order to find out whether all three moves, presented in model, are used by Civil Engineering researcher or not. This Swales' CARS model (1990) has proposed three moves for RA introductions. First move starts where author is establishing a territory which is followed by second move of establishing a niche and the second move is followed by the third move where author is occupying the niche. CARS model is used by many researchers for identifying the pattern used in research article introductions (Tongsiburg, 2012; Ahamad & Yusof, 2012; Jogthony, 2001; Swales & Najjar, 1987; Samraj, 2002; Anthony, 1999; Ozturk, 2007).
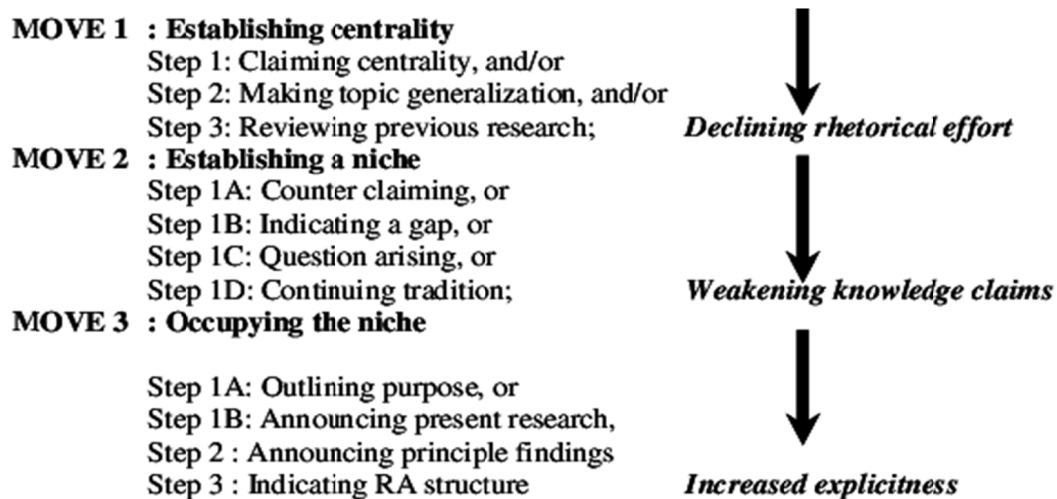
MOVE 1 : **Establishing centrality**
    Step 1: Claiming centrality, and/or
    Step 2: Making topic generalization, and/or
    Step 3: Reviewing previous research;   *Declining rhetorical effort*
MOVE 2 : **Establishing a niche**
    Step 1A: Counter claiming, or
    Step 1B: Indicating a gap, or
    Step 1C: Question arising, or
    Step 1D: Continuing tradition;   *Weakening knowledge claims*
MOVE 3 : **Occupying the niche**

    Step 1A: Outlining purpose, or
    Step 1B: Announcing present research,
    Step 2 : Announcing principle findings
    Step 3 : Indicating RA structure   *Increased explicitness*

Figure 1. Swales CARs Model (1990)

1.4 Objectives and Research Questions

The present study explores how Swales' CARS model (1990) is applied by Civil engineering researchers in their research articles' introductions. Following are the objectives of the research:

1) To identify structure of Civil Engineering research article introductions using Swales' CARS model (1990).

2) To find out whether moves from Swales' CARS model (1990) are used by Civil Engineering researchers.

3) To find out moves ignored from Swales CARS model by Civil Engineering researchers.

Following are the research questions:

1) What moves from Swales' CARS model are used by Civil engineering Researchers?

2) What moves from Swales' CARS model are not used Civil engineering Researchers?

2. Method

2.1 Data Collection

The corpus of this study was collected as a purposive sampling as this study aimed to investigate the data concerning the civil engineering RA introductions easily accessible and downloadable. The data was consisted of 15 RA introductions and the sample for this study was research articles published between 2014 to 2017 in the impact factor civil engineering and environmental journal of Taylor and Francis.

2.2 Data Analysis

Swales' CARS model (1990) was used for move analysis. Each RA introduction was examined as move-step sequence. Unit of analysis were individual sentences and were categorized into moves and steps of the CARS model (Tongsiburg, 2012; Ahamad & Yusof, 2012; Jogthony, 2001; Swales & Najjar, 1987; Samraj, 2002; Anthony, 1999). Organizations of moves in civil engineering RA introductions were analyzed in order to determine the overall pattern and to identify whether pattern is followed or not from Swales CARS model by Civil Engineering Researchers. The steps in each move were analyzed in detail and these steps are based on linguistic features which indicate the use of particular step according to Swales (1990). By doing this move-step analysis, moves and steps preference by Civil Engineer Researchers were discovered and variations in steps were found in Civil Engineer's RA introductions of Taylor & Francis Journal.

3. Results

In Civil Engineers' Research Article introductions were coded in numbers according to the year of publication and the move- structure was found by Move-step analysis. It showed the move-pattern's types followed in the corpus. Table 1 illustrates the findings of move-structure below.

Table 1. Move structure of civil engineer's RA introductions

RA Introductions	Year of publications	Move-pattern
Code 1	2014	1-2-3-2-1-2-3-1-2-1
Code 2	2014	**1-2-1-2-1-2-1-3**
Code 3	2014	1-2-1-2-1-2-1-3-2-3
Code 4	2015	**1-2-1-2-1-2-1-3**
Code 5	2015	1-2-3-1-2-1-3
Code 6	2015	1-2-1-2-3
Code 7	2016	1-2-1-2-1-3
Code 8	2016	**1-2-3**
Code 9	2016	1-2-1-2-1-2-1
Code 10	2016	1-2-1-2-3-2-3
Code 11	2016	**1-2-3**
Code 12	2017	1-2-1-2-3
Code 13	2017	1-2-1-2-1-2-3
Code 14	2017	1-2-1-2-3-1-3
Code 15	2017	**1-2-1-2-1-2-1-3**

The findings showed in the above table that variations do exist in the move structure of the Civil engineering's RA introductions as compared to Swales' CARS model (1990). The table shows that two articles coded as 8 and 11 follow the linear move-pattern of M1-M2-M3 as described in the CARS model. The predominant move-structure M1-M2-M1-M2-M1-M2-M1-M3 was found in article coded as 2, 4 and 15. The article code as 9 did not follow the move 3 it has only followed move M1-M2. The other remaining coded as 6 and 12 showed the M1-M2-M1-M2-M3 move structure where as other remaining followed the all three-move structure but with some variation in accordance with Swales' CARS model (1990).

Introduction coded as 15 showed the M1-M2-M1-M2-M1-M2-M1-M3. Excerpt 1 shows the steps sequence appeared within each move structure found in introduction 15 with the help of sentences.

Excerpt 1.

Move	Step	
1	S1	**S1)** The past decades, practice and literature have shown an increasing interest in Systems Engineering (SE) in the civil engineering and construction industry.
	S2	**S2)** System Engineering integrates all the disciplines and specialty groups into a team effort forming a structured development proceeds from concept to production to operation.
	S3	**S3)** Water boards are also clients who play an active role in the construction market. As a construction client, they directly engage in the design and production of a system and have a large influence on both the process and the product to be developed (Gann & Salter, 2000).
2	S1A	**S4)** Understanding how SE is applied in these projects increases the understanding of SE application in general and may stimulate further, more widespread use of SE.
	S1B	**S5)** Also committees and working groups, such as the INCOSE infrastructure working group, are exploring the use of SE in civil Engineering, and in the Netherlands the two main clients of civil engineering projects, Rijkswaterstaat and Prorail even prescribe the use of SE in all their projects (ProRail et al., 2008).
3	S1A	**S6)** The study explores to what extent SE is applied in relatively small and less complex projects of a Dutch water board.
	S1B	**S7)** In this study, six civil engineering SE projects of the project department of the water board are analyzed.
	S3	**S8)** The paper is structured as follows: in section two…

In this introduction, the Civil Engineer researcher starts with the Move 1 that is 'establishing a territory. He has claimed centrality of the topic by stating as interest being found for System engineering (S1). In the following step he has made generalization for the topic about SE to be operated (S2). He has reviewed item of previous research and described the impact of water board on the design with the help of citation (S3). Moreover, move 1 is followed by move 2 where researcher 'establishes a niche'. He has counter claimed with the help of researches been done to understand that SE application can be taken to as a widespread use (S4). Gap has also been indicated to explore the use of SE in civil engineering (S5). After move 2, move 3 was found, where researcher 'occupies the niche'. He has outlined the purpose of the research by stating that study aims to explore the application of SE in projects of Dutch water board (S6). He has further announced the present research by

describing the six civil engineering SE projects were analyzed (S7). He ended introduction by stating out the organization of paper that study had (S8). Table 2 shows the summary of step structure found in RA.

Table 2. Instances found in the CIVIL Engineering research article introductions.

Move	Step	Instances found in the article introductions
1	1	36
	2	30
	3	26
2	1A	26
	1B	31
	1C	1
	1D	-
3	1A	13
	1B	13
	2	2
	3	7

Table 2 shows the frequency of steps within each move. As it has showed that in move 1 (establishing a territory) step 1 occurred frequently belonging to 36 sentences. This means Civil Engineering Researchers focus more on claiming the centrality and importance of the topic. Step 2 and step 3 are preferred but is given less important as those steps shows generalization of the topic and the reviewing items of previous research paper. In move 2 (establishing a niche) it is the step 1B which frequently occurred with the allocation of 31 sentences. Researchers are interested in stating the gap rather than counter claiming (S1A), question raising (S1C) and continuing a tradition (S1D). Whereas in move 3 (occupying the niche) step 1A (outlining the purpose) and 1B (announcing present research) are observed important steps towards the researcher with the allocation of 13 sentences as compared to step 2 (announcing the principal findings) and step 3 (indicating research article structure).

4. Discussion

The in the above section shows that move-pattern of Civil Engineering RA introductions follows the all three moves but it does not follow the way it is proposed in the model. Variations were found inorganization of moves and steps within each move. Three out of fifteen RA introductions followed the same organization of move pattern illustrated in the CARS model. The findings have also shown that in introduction 9 moves 3 was ignored and predominant structure was revealed as M1-M2-M1-M2-M1-M2-M1-M3. The introductions explored the new methods in different context, invented design and suggested some operational methods to be employed in Civil Engineering research.

The results of step preferences showed that step 1 (claiming centrality) in move 1(establishing a territory). 36 sentences were found which claimed the significance of the present research topic. The sentences from S1 to S5 are indicating that how Civil Engineer researcher are giving importance to the topic by claiming topics centrality with linguistics features used such as Nowadays, have been made, have been evolved, recent, has become etc. Civil Engineer researchers gave importance also to the step 2 and step 3 where they made generalization about the topic and quoted some researches being done for the topic relevance. Some instances for the move 1's step 1 are presented below.

Excerpt 2.

RA Introduction	Move	Step	
2	1	1	**S1)** Nowadays, the renewable energy and estimation of energy production are popular research areas and they should be further investigated.
11			**S2)** An important research effort has been made to better account these risks, through methods and tools to identify, evaluate and manage these risks.
12			**S3)** The concept of seismic design approaches in last two decades has been evolved from the life safety approach to the performance-based design methodologies.
6			**S4)** On the topic of community resilience in particular, recent initiatives include multimillion-dollar solicitations from the National Institute of standard technology.
13			**S5)** Sustainable development in the construction industry has become an important matter, but it seems to be lagging behind other sectors.

In move 2 (establishing a niche), Civil Engineer Researchers tend to prefer step 1B that is indicating a gap. This step was found with 31 steps than S1A (counter claiming), S1C (question-rising) and S1D (continuing a tradition). Step 1B shows that there was a gap in previous study which can be explored or investigated and can be shown from the S1 to S8 in the excerpt 3. The linguistics features used are not enough studies about, but, however, because etc. Few instances for move 2's step 1B are presented in excerpt 3.

Excerpt 3.

RA Introduction	Move	Step	
3	2	1B	**S1)** It can be seen through literature that there are not enough studies about environmental effects on the dynamic characteristics of base-isolated and post-tensioned segmental highway bridges constructed with the balanced cantilever method.
14			**S2)** The sustainable performance of a building structure is not only applicable during the construction phase of the project, but also the post-construction life cycle.
10			**S3)** However, sustainable building includes not only environmental aspects, but economic and social aspects as well.
5			**S4)** … because the word 'technical' implies mere technique, 'system' or 'systematic' implies mere rule following and 'engineering' implies the mere instrumental…
1			**S5)** However, as it is a flow of a mixture, critical mixture velocity of the flow should be computed.

Moreover, in move 3 (occupying the niche), Civil Engineer Researchers used step 1A (outlining the purpose) and 1B (announcing present research) with 13 sentences frequently then step 2 (announcing principal findings) and step 3(indicating research article structure). Researcher wants their readers to know the purpose of the study being carried out and stating how that studies would be conducted. Few introductions stated their finding of studies in the introduction and the organization of paper. Few instances of move 3's step 1A and step 1B are presented in the following excerpt.

Excerpt 4.

RA Introduction	Move	Step	
1	3	1A	**S1)** The aim of the optimization problem in the study is to minimize the total cost.
13			**S2)** The aim of the submitted paper is to compare selected parameters of sustainability of wood-based modern construction and traditional masonry construction.
10			**S3)** the objective of the study is to create a recreational building SA model made by experts, using breakdown, compensation and the Analytic Hierarchy Process (AHP) methods.
1		1B	**S4)** In this study, the optimization of transportation of materials by means of slurry pipelines is presented.
2			**S5)** In this article, a new optimum sizing methodology for stand- alone hybrid systems are developed based on MEM at the lowest investment.
4			**S6)** The study focuses on planning and scheduling activities with the aim to determine the suitability of a RP-based planning methodology for construction project planning and implementation.

5. Conclusion

The study explored the move-pattern of Civil Engineering RA introduction and organization of move-step sequence within each move by doing genre analysis of Civil Engineering RA introductions using Swales' CARS model 1990. The results stated above have shown that move-pattern proposed by the CARS model does not closely followed in Civil Engineering RA introductions. There were only two introductions out of fifteen which followed the liner M1-M2-M3 move pattern described by the Swales' in CARS model 1990. In Ahamad and Yusof's (2012) study showed that move pattern of M1-M2-M3 in Islamic RA introductions were relatively small. The predominant structure found in Civil Engineering RA introduction was M1-M2-M1-M2-M1-M2-M1-M3. The results of the present study revealed that it is a follow-up of previous researches.

Variation in move-pattern and organization of steps within each move has been found in across discipline by other researchers as well (Ahamad & Yusof, 2012; Ozturk, 2007; Jogthong, 2001; Anthony, 1999). All three moves existed in RA introductions; the only difference found was in the organization of move and steps (Jogthong, 2001). M1-M2 are the moves that occurred frequently in computer science RA introductions reported

by Anthony (1999) and the same instances were found in the results of this study. However, move 3 was less found than move 1 and 2 even in one introduction it was ignored (code 9). It showed that Civil Engineer Researchers preferred establishing the territory and establishing a niche where they claimed centrality of the topic, made generalizations, indicated gap and provided previous studies related to their topic to show its importance and tried to prove their research topic.

The findings of genre analysis of Civil Engineering RA introductions using CARS model (1990) have implications for writing pedagogy and for the enhancement of reading and writing skills of ESL/EFL/ESP students. It can help students in organizing their RA introductions and their attention can be paid towards the pattern prevalent in the wider discipline (Ozturk, 2007; Samraj, 2002; Bonyadi, 2012; Jogthong, 2001).

"Linguistic awareness can be more effectively developed with purposeful language practice and critical analysis of genre'' (Bronia, 2005). Keeping this in mind the results of the present study can assist EFL (Bonyadi, 2012), ESL/ESP teachers (Ahamad & Yusof, 2012), students in requiring knowledge about discourse conventions and activities can be designed and brought in to the classroom (Bonyadi, 2012). The results of the present study can help Civil Engineer students if they are exposed to the variations of move-pattern and move step sequences found in Civil Engineering RA introductions and are made practice its organization and move structure, they will surely develop clear understanding of RAs' organization and its conventions. They will feel confident and motivated about their works to be published in any local or international journals. It will not only benefit students but it will also help teachers in their teaching approaches and developing materials for their course.

This study is limited to only Civil engineering's Research Article introductions and has analyzed only Taylor and Francis' Civil Engineering and Environmental Journal. The results of the study are not generalized to all Research Article introductions of engineering disciplines as the study was done only on 15 Civil Engineering's research Article introductions. The study used qualitative design due to time constraints so one can do genre analysis by using quantitative and mixed method design as well in future.

References

Ahamad, M., & Yusof, A., (2012). A genre analysis of Islamic Academic Research Article introductions. *Procedia – Sciences and Behavioral*, *66*(7), 157–168. https://doi.org/10.1016/j.sbspro.2012.11.257

Anthony, L. (1999). Writing Research Article Introductions in Software Engineering: Writing Research Article Introductions in Software Engineering. *IEEE Transactions on Professional Communication*, *42*(1), 38–46. https://doi.org/10.1109/47.749366

Bonyadi, A. (2012). Genre Analysis of Media Texts. *Procedia - Social and Behavioral Sciences*, *66*, 86–96. https://doi.org/10.1016/j.sbspro.2012.11.250

Cooper, C. (1985). *Aspects of Article Introductions in IEEE Publications*. Unpublished M.Sc. dissertation, University of Aston, U.K.

Crookes, G. (1986). Towards a Validated Analysis of Scientific Text Structure. *Applied Linguistics*, *7*(1), 57–70. https://doi.org/10.1093/applin/7.1.57

Cumming, A. (1995). Fostering writing expertise in ESL composition instruction: Modeling and evaluation. In D. Belcher & G. Braine (Eds.), *Academic Writing in a Second Language: Essays on Research & Pedagogy* (pp. 375–398). Norwood, NJ: Ablex.

Dudley-Evans, T. (1994). Genre analysis: An approach to text analysis for ESP. In C. Malcolm (Ed.), *Advances in written text analyses* (pp. 219–228). London: Routledge.

Duszak, A. (1994). Academic discourse and intellectual styles. *Journal of Pragmatics*, *21*(3), 291–313. https://doi.org/10.1016/0378-2166(94)90003-5

Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing*, *13*(2), 133–151. https://doi.org/10.1016/j.jslw.2004.02.001

Jogthong, C. (2001). *Research article introductions in Thai: Genre analysis of academic writing*. ProQuest Dissertations & Theses.

Kaplan, R. B. (1966). Cultural Thought Patterns in Intercultural Education. *Language Learning*, *16*, 1–20. https://doi.org/10.1111/j.1467-1770.1966.tb00804.x

Nimehchisalem, V., Tarvirdizadeh, Z., Paidary, S. S., & Hussin, N. I. (2016). Rhetorical Moves in Problem Statement Section of Iranian EFL. *Advances in Language and Literary Studies*, 173–180.

Ozturk, I. (2007). The textual organisation of research article introductions in applied linguistics: Variability

within a single discipline. *English for Specific Purposes*, *26*, 25–38. https://doi.org/10.1016/j.esp.2005.12.003

Paltridge, B. (1994). Genre Analysis and the Identification of Textual Boundaries. *Applied Linguistics*, *15*(3), 288–299. https://doi.org/10.1093/applin/15.3.288

Paltridge, B. (2001). *Genre and the language learning classroom*. Ann Arbor: The University of Michigan Press. https://doi.org/10.3998/mpub.23749

Samraj, B. (2002). Introductions in research articles: variations across disciplines. *English for Specific Purposes*, *21*(1), 1–17. https://doi.org/10.1016/S0889-4906(00)00023-5

So, B. P. C. (2005). From analysis to pedagogic applications: using newspaper genres to write school genres. *Journal of English for Academic Purposes*, *4*(1), 67–82. https://doi.org/10.1016/j.jeap.2004.02.004

Swales, J., & Najjar, H. (1987). The Writing of Research Article Introductions. *Written Communication*, *4*, 175. https://doi.org/10.1177/0741088387004002004

Swales, J. M. (1990). *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press. https://doi.org/10.2307/416471

Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills* (2nd ed.). Ann Arbor, MI: University of Michigan Press.

Thomas, S., & Hawes, T. P. (1994). Reporting verbs in medical journal articles. *English for Specific Purposes*, *13*(2), 129–148. https://doi.org/10.1016/0889-4906(94)90012-4

Tongsibsurg, J. (2012). *A Genre analysis in English Editorials regarding hard news in Broadcast and Tabloid Newspaper*. Retrieved from http://www.libdcms.nida.ac.th/thesis6/2012/b180478.pdf

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