UNIVERSITI PUTRA MALAYSIA

RHETORICAL MOVES AND METADISCOURSE USED IN ABSTRACTS OF ESL ENGINEERING UNDERGRADUATES' TERM PAPERS IN A MALAYSIAN PUBLIC UNIVERSITY

CHUAH EK LON

FBMK 2015 4

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By

CHUAH EK LON

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfillment of the Requirements for the Degree of Master of Arts**

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October 2015

Chairman: Professor Chan Swee Heng, PhD
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The abstract functions to provide a quick overview of a research report or an article. It is usually the last item written by authors after they have completed the main sections in the report. Readers usually will decide whether to read further or reject the article after the first reading of the abstract. Therefore, an abstract should be clear and concise to 'sell' their research to the readers or to reviewers to select participation in conferences. Given the importance of an abstract, it is essential for writers, especially novice writers like undergraduate writers to know the appropriate writing conventions and use them appropriately in academic writing to engage the readers. Numerous studies have focused on research article abstracts. However, focus on final term paper abstracts of undergraduates is still scarce. This study investigated the rhetorical move patterns in the abstracts of undergraduates' final term papers in the engineering discipline from a Malaysian public university. In congruence with the move patterns, this study also investigated the metadiscourse features that help to signal the moves and perform a social and linguistic function. In analyzing the move patterns, Pho's (2008) model of abstract analysis was used, while metadiscourse analysis was governed by Hyland's (2005) framework. A concordancer MP2.2 was used to determine the frequency of metadiscourse use in the abstracts. This study also embarked on the investigation of possible combinations of the move patterns. As far as move patterns were concerned, *Move 1- Situating the research*, *Move 2-Presenting the research* and *Move 3- Describing the methodology* were the obligatory moves while *Move 4- Summarizing the findings* and *Move 5- Discussing the research* were optional moves. The results were somewhat in contrast with the past studies on abstracts where *Move 2- Presenting the research*, *Move 3- Describing the methodology* and *Move 4- Summarizing the findings* were the obligatory moves. The most frequent combination of the moves were *Move 1*, *Move 2* and *Move 3*. As for metadiscourse, this study found that *interactive* forms was found to be higher than *interactional* forms. The highest category of *interactive* form was *transition markers*, while *interactional* form was *engagement markers*. In many past studies on metadiscourse, *transition markers* was also found to be highly used. The results will have a bearing on pedagogical implications and will also inform students of related genre expectations towards

abstract writing. This qualitative and quantitative study would give insights to teachers to help students to craft an effective abstract to engage readers. However, this study focused only on a single discipline of undergraduates' final term papers. Future investigation on rhetorical move patterns and metadiscourse in abstracts could be extended to different disciplines and categories of students, such as postgraduates. Studies can also be carried out to compare abstracts written by students who are proficient and not proficient to identify differences in the use and combination of move patterns as well as the metadiscourse involved.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sastera

PERGERAKAN RETORIK DAN METAWACANA YANG DIGUNAKAN DALAM ABSTRAK BAHASA INGGERIS SEBAGAI BAHASA KEDUA (ESL) KERTAS KERJA KEJURUTERAAN PRASISWAZAH DI MALAYSIA PENGAJIAN TINGGI AWAM

Oleh

CHUAH EK LON

Oktober 2015

Pengerusi: Profesor Chan Swee Heng, PhD
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Abstrak berfungsi untuk memberi gambaran menyeluruh suatu laporan penyelidikan atau artikel. Abstrak biasanya merupakan bahagian terakhir yang ditulis selepas penulis menyelesaikan bahagian-bahagian utama dalam laporan. Pembaca biasanya akan membuat keputusan sama ada untuk meneruskan pembacaan dengan lebih lanjut, atau menolak sesuatu artikel setelah pertama kali membaca abstrak. Oleh yang demikian, abstrak mestilah jelas dan ringkas untuk 'menjual' penyelidikan mereka kepada pembaca atau pengulas yang memilih peserta dalam persidangan. Disebabkan kepentingan abstrak, adalah penting bagi seseorang penulis, terutamanya penulis baru seperti penulis prasiswazah, untuk mengetahui amalan penulisan yang sesuai dan menggunakannya dengan wajar dalam penulisan akademik untuk menarik perhatian pembaca. Kajian yang lepas tertumpu kepada abstrak artikel penyelidikan. Walau bagaimanapun, kajian ke atas abstrak kertas penggal akhir prasiswazah masih berkurangan. Kajian ini bertujuan untuk menyiasat pola langkah retorik dalam abstrak kertas penggal akhir pelajar prasiswazah dalam bidang Kejuruteraan. Sebagai penyelarasan kepada pola langkah, kajian ini turut menyelidik sifat metawacana yang membantu menggerakkan langkah dan menjalankan fungsi sosial dan linguistik. Untuk menganalisa pola langkah, model analisis abstrak Pho (2008) telah digunakan; manakala analisa metawacana pula ditadbir oleh kerangka Hyland (2005). Perisian konkordans MP2.2 digunakan untuk menentukan kekerapan penggunaan metawacana dalam abstrak. Kajian ini turut memulakan penyiasatan ke atas kombinasi pola langkah yang berkemungkinan. Berdasarkan pola langkah yang terlibat, *Langkah 1 – Menempatkan kajian*, *Langkah 2 - Membentangkan penyelidikan* dan *Langkah 3 - Menerangkan metodologi*, merupakan langkah wajib, manakala *Langkah 4 - Meringkaskan penemuan* dan *Langkah 5 – Membincangkan kajian*, merupakan langkah

pilihan. Keputusan yang diperolehi adalah bertentangan dengan kajian abstrak yang lalu, di mana *Langkah 2 - Membentangkan penyelidikan*, *Langkah 3 - Menerangkan metodologi* dan *Langkah 4 – Meringkaskan penemuan* merupakan langkah – langkah yang wajib. Kombinasi langkah yang paling kerap adalah *Langkah 1*, *Langkah 2* dan *Langkah 3*. Manakala untuk metawacana pula, kajian ini mendapati bahawa metawacana *interaktif* adalah lebih tinggi berbanding metawacana *interaksional*. Kategori *interaktif* tertinggi ialah *penanda peralihan*, manakala untuk kategori *interaksional* ialah *penanda penglibatan*. Dalam kebanyakan kajian lalu berkenaan metawacana, *penanda peralihan* juga didapati paling kerap digunakan. Keputusan kajian ini akan memberi impak terhadap implikasi pedagogi dan memberi pengetahuan kepada pelajar tentang jangkaan genre yang berkaitan dengan penulisan abstrak. Kajian kuantitatif dan kualitatif ini akan memberi pandangan kepada para guru untuk membantu pelajar menulis abstrak yang lebih berkesan bagi menarik pembaca. Walau bagaimanapun, kajian ini hanya tertumpu kepada satu disiplin sahaja bagi kertas penggal akhir prasiswazah. Kajian ke atas pola langkah retorik dan metawacana dalam abstrak boleh dilanjutkan pada masa akan datang kepada pelbagai disiplin dan kategori pelajar yang berbeza seperti pelajar pascasiswazah. Kajian juga boleh dijalankan untuk membandingkan abstrak yang ditulis oleh pelajar mahir dan tidak mahir untuk mengenal pasti perbezaan dalam penggunaan dan kombinasi pola langkah serta metawacana yang terlibat.

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Lastly, I am grateful to my church members who have always keep me in prayer. Their fervent prayers give me peace and stillness. In all these, I want to give thanks to my Almighty God, that everything is possible in his name. Amen.

I certify that a Thesis Examination Committee has met on 23 October 2015 to conduct the final examination of Chuah Ek Lon on her thesis entitled "Rhetorical Moves and Metadiscourse Used in Abstracts of ESL Engineering Undergraduates' Term Papers" in accordance with the Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The committee recommends that the student be awarded the Master of Arts.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Arts. The members of the Supervisory Committee were as follows:

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This is to confirm that:
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Name of
Chairman of
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Member of
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LIST OF ABBREVIATIONS

L1   First Language Learners

L2   Second Language Learners

STR   Situating the Research

PTR   Presenting the Research

DTM   Describing the Methodology

STF   Summarizing the Findings

CHAPTER 1

INTRODUCTION

1.1 Background of the study

The fast growing number of ESL/EFL students entering into English speaking tertiary level institutions has caused the rapid emergence of research into L2 writing, especially academic writing. However, these studies have shown that L2 writers are less-skilled than L1 writers. (Grabe and Kaplan, 1996). The study by Collins and Williamson (1984) also indicated that they are unable to structure information for readers to understand easily. Such evidence of poor writers demonstrated that L2 writers are likely not to be sensitive towards their audience needs (Hillocks, 1986). In addition, there are opinions by lecturers and examiners that students' papers are 'worryingly weak' in regard to content and language related aspects (Huttner 2007, p.12). This is evident in the works of Atkinson (1991) and Bruthiaux (1993) who revealed that these L2 writers lack knowledge in the use of formal conventions in writing. For example, it was found that these writers have difficulties in writing their opening statements of written texts as well as citing references, in addition to the writing that involves stages in sequencing of information and rhetorical arrangement of information.

The rhetorical arrangement of information is in fact governed by a particular genre. The L2 undergraduate writers have to engage in the composing process that involved different kinds of genres to attend to their assignments. These genres could include descriptive, narrative, argumentative writing or more specifically, research article introductions (Bhatia, 1993).

The definition of genre is defined by Swales (1990) as 'a class of communicative event, the members of which share some set of communicative purposes' (p.58). Examples of such communicative events, are 'jokes, stories, lectures, greetings and conversations' (Saville Troike, 1982, p.39) including the writing of term papers. Research into genres have been quite widespread since Swales' (1990) seminal work. The research has embarked on genre analysis to characterize the typical or conventional textual features. From the research, there were also attempts to develop pedagogical approaches that could be utilized to teach form-function correlations in writing. Genre analysis also attempts to explain text characterization in the context of the socio-cultural as well as the cognitive constraints operating at the level of specific use of language whether professional or academic (Bhatia, 1993).

Swales (1990) highlighted that genre is an important aspect of discourse, especially when a functional purpose can be identified. He pointed out that understanding genre is

crucial as it helps students to learn effectively, strengthen students' skills in learning and developing the ability to function academically in education context. In addition, 'genres comprise a system for accomplishing social purposes by verbal means' (Swales, 1990, p. 41).

Studies on genres in writing have been done on several text types. Other than the introduction section as carried out by Swales (1990), research has also anchored on different sections of the research articles. They are acknowledgements (Giannoni, 2002), results (William, 1999), discussion (Peacock, 2002), method (Lim, 2006), and conclusion (Yang and Allison, 2003). In addition, another genre that has been researched in academic discourse is the abstract (Santos, 1996; Stotesbury, 2003; Lores, 2004; Samraj, 2005; Promsin, 2006; Ning, 2008; Pho, 2008, and Ren and Li, 2011).

Abstract as a genre serves as a 'gate-keeping function' to aid readers to decide if they should read the whole article (Porush, 1995, p.76). The importance of an abstract also lies in its function as a selection criterion for journal publications; it also helps organizers to screen abstracts for acceptance for conferences (Lores, 2004). Thus, if an abstract is vague or lacking in key information, the full article may lose its readership (Doro, 2013). Hence, the abstract is an important genre in the field of academic writing as it functions as an independent piece of discourse which helps to signal the content and organization of the text that follows (Swales, 1993).

In conjunction with the description of a genre, the concept of moves was also introduced by Swales to account for the development of ideas according to a schema. For example in the context of a research the article introduction, Swales (1990) proposed his well-known CARS model (*Create a Research Space*) for the analysis of moves. This genre comprises basically three moves, which are, *Establishing a territory, Establishing a niche* and, *Occupying a niche*. His model had initiated much research into this area (e.g. Kanoksilapatham, 2011; Hirano 2009; Ozturk, 2007; Samraj, 2005 and Fakhri, 2004). Fakhri (2004) investigated the rhetorical properties of Arabic research article introductions, while Hirano (2009) studied the comparison of research article introductions from Brazilian Portuguese and English from the subfield of Applied Linguistics. In addition, Ozturk (2007) investigated the variability of textual organization in applied linguistics. In the field of hard sciences, Kanoksilapatham (2011) analyzed "moves" and "steps" of civil engineering research article introductions. In addition, Samraj (2005) had compared research article introductions and abstracts from the field of Conservation Biology and Wildlife Behaviour.

In the context of research on moves, Swales' (1990) CARS model provides an insightful analysis of the introduction section. However, it has been criticized by Bhatia (1993) as limited. In another study, Anthony (1999) tested the CARS model and found that there are no steps to classify 'definitions of important terms and examples to illustrate difficult concepts' after Move 1 which is *Establishing a territory* (p.43). Also

Samraj (2002) highlighted that RA introductions in the fields of Wildlife Behaviour and Conservation Biology as containing features that cannot be accounted for in the CARS model.

Whatever the limitations identified with Swales' CARS model, it is invariably concluded that inherent in a genre is a series of moves which forms the text structure. Both Holmes (1997) and Bhatia (1993) concurred that these moves serve specific communicative functions. However, for Holmes, these communicative functions are realized in the distinct divisions of the text while for Bhatia, the moves are considered as rhetorical tools of the communicative events of the text. However, what remains as an unanswered question is how a move can be realized by different textual choices. These choices are complex. As Huttner (2007) explained, the description of linguistic features indeed render a lot of space, but the deciding factor whether 'any of the features described are indeed typical of either genre or specific genre moves' is left rather open (p.53). She further said that the explanation for linguistic features that are typical of the genre in question seems to fall short at the moment, thus the area appears to invite more investigation.

Among the investigations that warrant more work has to do with textual choices of which the use of metadiscourse features is one of them. The term metadiscourse was coined in 1959 by Zellig Harris to help describe language in use. Metadiscourse serves as a language tool used by a writer or speaker to guide a reader's perception of a text. Later, other researchers refined the concept of metadiscourse (e.g.Williams, 1981; Vande Kopple, 1985, and Crismore, 1989). Building on the concept, Hyland (2005) further redefined metadiscourse as an umbrella term to 'include an apparently heterogeneous array of cohesive and interpersonal features which help relate a text to its context' (p.16).

The concept of metadiscourse is apparently attractive as it motivates writers to utilize the range of devices to interact with readers, construct their texts, and convey their disposition to the audience (Hyland and Tse, 2004). However, the term is still 'under theorized and empirically weak' (p.156). To add on, Hyland and Tse (2004) claim that there is no benchmark to identify metadiscourse because it is an 'open category'. This is because the identification of metadiscourse depends very much on the context of use. Therefore, a word which may function as a metadiscourse in one context may not be considered as one in another context. To illustrate the point further, take the case of the word 'and'. The coordinating conjunction 'and' functions as a metadiscourse when it is used to join two independent clauses together, but when it is used as listing of items, 'and' no longer functions as a metadiscourse. Although the identification of metadiscourse is not water- tight, metadiscourse has long been acknowledged for its importance in 'facilitating communication, supporting a writer's position and building a relationship with an audience' (p.159). Seen in this light, metadiscourse is a crucial element that helps readers to relate the text to its context. In summary, metadiscourse is described as a writer's communication tool, and by extension, this notion may help

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writing analysts to study the way a writer chooses to handle the   'interpretive processes' as the writer handles the delivery of the propositions in the text.

1.2 Statement of problem

Writing for L2 learners has always been a challenge. Hinkel (2004) pointed out that non-native speaking students experienced enormous difficulty at the college and university level in the use of English despite having studied English and academic writing in school. This is also reiterated by many other scholars (Hinkel 2002a; Johns, 1997; Johnson 1989a; Jordan, 1997; Leki & Carson, 1997; Prior, 1998; and Santos, 1988). The core writing difficulties encountered by ESL students are the 'composing skills rather than linguistic skills' (Raimes, 1985). The problem of composing is explained by Grabe and Kaplan (1996, p.5):

> In most academic settings where students are learning to write, the educational system assumes that students will learn to compose with the ability to transform information. In fact, many students learning to write before they enter tertiary level have little consistent exposure to writing demands beyond retelling.

In addition, Johns (1997) also postulates that many non-native speaking (NNS) graduate and undergraduate students fail to recognize the conventions of academic writing despite years of ESL training. She further notes that these students write academic papers and essays that the institution judges as unclear and confusing, as well as being disorganized in the use of rhetorical structures and often are written with a personal tone. Johns (1997) in her study interviewed many faculties and found NNS students' writing to be weak at sentence-level features that are considered to be basic, for example, in the appropriate use of hedging, modal verbs, pronouns, active and passive voice, balanced generalization and even exemplification. Many university students experienced disappointment and estrangement as they often concluded that the faculty to be unreasonably demanding and restrictive, thus, making their efforts undervalued and invalid.

Grabe and Kaplan (1996) also extrapolated that this problem faced by students deserved the attention of applied linguists. Genre-based instruction has been addressed as an approach to overcome writing problems. However, the identification of what are the genres that occur in academic discourse that need to be taught still remains unresolved (Bruce, 2008). In addition, the essential linguistic skills such as academic vocabulary and formal features of grammar and text, have not consistently been addressed (Hinkel, 2004). Dudley-Evans (2002) also stated that undergraduate papers assigned to students are problematic in that they are not well-defined, or well modelled,

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by faculty. It is essential that students need to be taught writing skills so that they can work effectively in the context of the task assigned and at the same time use appropriate informational content. Thus it is obvious that L2 writers face a myriad of writing problems and at the university where the study is carried out, it is no exception.

One of the writing problems, in particular, is abstract writing which often is a requirement in their academic writing pursuits. If abstracts are 'unclear' they will lack key information in the message and might lose its readership (Doro, 2013). What is lacking in an abstract could be attributed to lack of clarity in basic moves such as *background, aims,* methods, *results* and *conclusions* (Wallwork, 2011). In fact, 'there are no generally accepted abstracts standards, nor are there any criteria which abstract can be assessed' (Cross and Oppenheim, 2006: 429). Additionally, Doro (2013) claims that abstracts in the final thesis production are written without close supervision in most cases. She conducted an investigation whereby she found that Hungarian novice academic writers (undergraduate students) encountered many difficulties in adhering to the requirement of academic discourse when writing in English. She further highlighted that the major challenge of planning and writing a thesis of about 20-35 pages as a requirement to graduate is daunting for these students which included the writing of the abstract.

In relation to writing abstracts that act as information retrieval and selection for journal publication, Kanoksilapatham (2013) also said that learners who are non- English speakers find it challenging and daunting as they need to possess knowledge in 'structural organization and linguistic features' (p.2). In abstract writing, the structural organization is built up of steps or moves, while the linguistic features could involve metadiscourse. Taken together, it is crucial they need to know the overall organization commonly followed in the particular genre of their respective academic disciplines in order to "sell" their research to their potential readers. Furthermore, they need to be able to choose appropriate lexical and grammatical features to make their abstracts accessible and understandable by their target discourse community members (Kanoksilapatham, 2013).

These recent comments about the difficulty of abstract writing could be said to be supportive of earlier statements made by scholars such as Hyland (2000) who had postulated that investigation into abstracts had been a 'rather neglected social artifact of disciplinary life' (p. 83). From another perspective, Pho (2008) agreed with Ventola (1994) that useful instruction books for novice writers to craft an abstract was lacking.

Abstract writing also involved the use of metadiscourse features. Garcia- Calvo (2002) emphasized that ground-breaking studies on this term have not been done. To date, only a few studies have been carried out on metadiscourse in student academic writing (Khedri et al., 2013; Li and Wharton, 2012; and Loi and Lim (2013). In this study, the metadiscourse features in abstract writing were investigated to add on to the state of knowledge about metadiscourse, specifically situated in abstract writing. Abstracts may

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be situated in different kinds of writing. It could be connected to the writing of theses, research articles or conference papers. In this study, the focus is on abstracts written in the context of undergraduate term papers which is less explored though it is a very common type of writing exerted on students. Given the importance of academic writing in university and the need to write coherent abstracts that precede the term paper generally deemed a compulsory exercise for graduation, it is felt that the generic area of abstract writing offers great potential for research investigation. Understanding the text structure in practice would lead to insights into students' ability and could lead to some solid pedagogical suggestions for writing improvement.

1.3 Theoretical framework

This section discusses the theories related to this study.

1.3.1 Theory of language knowledge

In connection with the present study, one could relate to the underlying theory of language knowledge initially to explain it as a communicative act which is exploited specifically to give information on genre knowledge and the use of metadiscourse. Of particular relevance is the notion of knowledge of genre structure and genre constraints and other kinds of knowledge that pertain to both macro and micro features of text organization and coherence (for more details, see Kaplan and Grabe's theory of language knowledge in Appendix A)

The top level discourse function identified in Kaplan and Grabe's framework can be translated as the move structures of the abstracts, while knowledge of intrasentential and intersentential marking devices and knowledge of semantic relations across clauses will give rise to the situating of metadiscourse as a concern in this study. Thus, the theory contains elements that have a bearing on writing which specifically in this study is situated in the abstract genre.

Hyland (2005) postulates that language does not just convey information about the world but also acts as representation of the organization of the text itself and engage readers as to how to understand it. Vande-Kopple (1985) states that metadiscourse on a different level 'does not expand the propositional information of a text' and further added that 'they do not make claims about states of affairs in the world that can be either true or false, and they do not convey messages which have "specific reference to the processes, persons, objects, abstractions, qualities, states and relations of the real world…." (p.85). Rather, metadiscourse has the potential to affect reader's interactions with the text significantly in the process of deriving meaning form the text. In this context, the use of language can be explained by M.A.K Halliday's work on grammar whereby he sees language use as satisfying three-macro functions of language which are related to ideational, interpersonal and textual meanings.

Ideational elements are concerned with the content of language and its function as a means of the expression of our experience, both of the external world and of the inner world of our own consciousness. These elements could also be called representational or informational.

Interpersonal elements are concerned with "language as the mediator role, including all that may be understood by the expression of our own personalities and personal feelings on the one hand, and forms of interaction and social interplay with other participants in the communication situation on the other hand. These elements carry essentially social meanings. They allow us to reveal our personalities, to evaluate and react to the ideational material, to show what role in the situation we are choosing, and to indicate how we hope readers will respond to the ideational material.

Textual elements, on the other hand, have "an enabling function, that of creating text, which is language in operation as distinct from string of words or isolated sentences and clauses. It is this component that enables the speaker to organize what he is saying in such a way that it makes sense in context and fulfills its function as a message." Thus metadiscourse is firmly anchored on meaning beyond the discourse as language is used to persuade the reader to take on a particular direction according to the proposition presented.

1.3.2 Theory of genre

Metadiscourse use is also situated in the context of use which can be explained through the theory of genre. Understanding genre is important because it is closely connected to a discipline's approach and purpose in writing which also leads to a choice in text development. Writers could package information in ways that conform to disciplinary norms, values and ideologies. The written communication of one's field is important to professional success (Berkenkotter and Huckin, 1995). In explaining genre, Martin (1985, p. 250) defines it as 'how things get done when language is used to accomplish them'. As such, abstract can be classified as a sub-set of the academic writing genre. The interest in genre can be traced to Swales (1990), the pioneer of ESP who conceptualized genre as below:

> A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileges criterion and one

> that operates to keep the scope of a genre as here conceived focused on comparable various patterns of similarity in terms of structure, style, content and intended audience (p.58)

In addition, Bazerman (1988) defines genre as a social construct that regularizes communication, interaction, and relations. Thus the formal features that are shared by the corpus of texts in a genre and by which we usually recognize a text's inclusion in a genre, are the linguistic/symbolic solutions to a problem in social interaction. Swales (1990) depicts communicative purpose as a 'privilege criterion' in identifying a genre and its moves. Each form or move is realized through a semantic structure, which refers to the organization of semantics units in a text. Each semantic unit constitutes a move, which is a 'rhetorical device' or a rhetorical step' (Bhatia, 1993).

From these initial conceptualizations, work on the abstract genre has extended to the establishing of clear criteria of its move patterns reflective of a schematic structure. Thus, literature search revealed Santos's (1996) proposed model for the textual description abstract writing which comprises of five moves. They are *Move 1- Situating the Research* (STR) with 3 sub-moves which are *Stating current knowledge, Citing previous research, Extending previous research* and sub-move *2- Stating a problem, Move 2- Presenting the Research* (PTR) with 3 sub-moves which are *Indicating main features*, *Indicating main purpose* and *Hypothesis raising*, *Move 3- Describing the Methodology*, *Move 4- Summarizing the Findings*, and *Move 5- Discussing the Research* (DTR) with 2 sub-moves which are *Drawing conclusions* and *Giving recommendations* (see figure 1.1 below).

_____

Move 1 ─ Situating the research
        Sub-move l A - Stating current knowledge
        and/or
        Sub-move 1 B - Citing previous research
        and/or
        Sub-move 1 C - Extending previous research
        and/or
        Sub-move 2- Stating a problem
Move 2 ─ Presenting the research
        Sub-move l A - Indicating main features
        and/or
        Sub-move 1 B - Indicating main purpose
        and/or
        Sub-move 2- Hypothesis raising

Move 3 ─ Describing the methodology
Move 4 ─ Summarizing the results
Move 5 ─ Discussing the research
        Sub-move 1 - Drawing conclusions
        and/or

Sub-move 2 - Giving recommendations

Figure 1.1: Santos's (1996) Proposed Pattern for Research Article Abstracts

Santos's (1996) model was adopted by Fangsa (2010) in the analyzing of rhetorical moves of PhD dissertation abstracts in Educational Administration; while Tseng (2011) used Santos's model to analyze move structure and verb tense of research articles abstracts in Applied Linguistics extracted from journals.

However Santos's model was modified by Pho (2008) who added probing questions to facilitate the use of the model. To date, a few studies have used Pho (2008) model for abstract analysis. Given the facilitations in the use of the questions, this study adopts Pho's (2008) approach in the study of engineering students' abstract writing. Elaborations on his approach are explicated in Chapter 3.3 (see table 3.1). The flow of the study is explained by the conceptual framework in the next section.

1.4 Conceptual Framework

Mainly this study has anchored on genre analysis of engineering undergraduate term paper abstracts. Abstracts, as part of academic writing, will be subjected to Pho's (2008) model of abstract analysis. In terms of language use in abstracts, Hyland (2005) model of interpersonal metadiscourse is used to analyze the metadiscourse features (see figure 1.2 below).
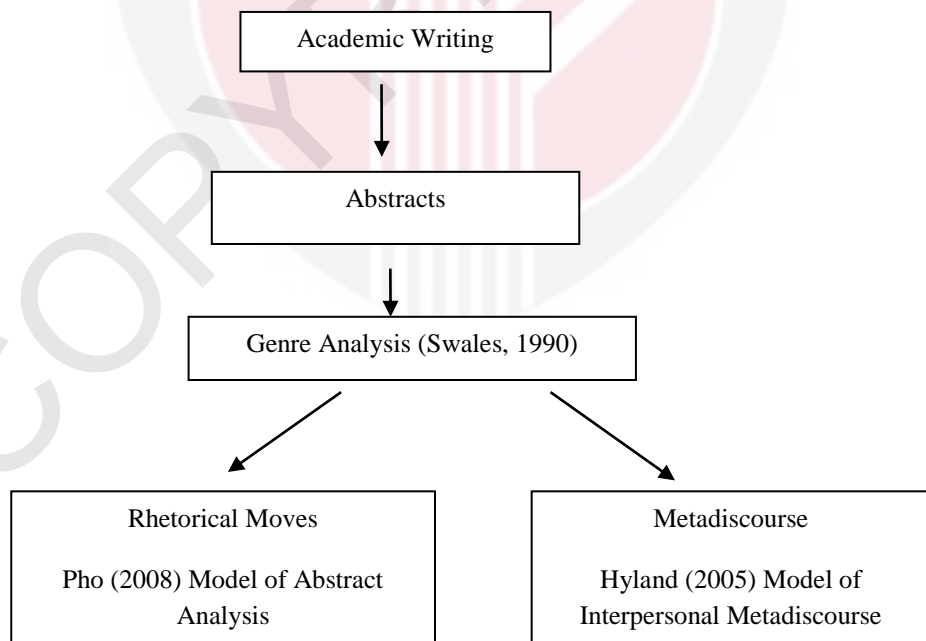

Figure 1.2: Conceptual Framework of the Study

1.5 Purpose of the study

The scarcity of investigation into the writing of undergraduate final term papers in Malaysia has prompted the researcher to carry out a research on the rhetorical moves and metadiscourse specifically used in the abstracts of term papers by Malaysian undergraduate students. Specifically the genre is located in the engineering discipline. It is important to know what categories of metadiscourse features are used to signal the rhetorical moves in the abstracts written. Furthermore, this study will also seek answers on how the metadiscourse features are realized linguistically in each move written by the undergraduate students. This will develop insights into L2 writing in terms of the writer's adequacy and effectiveness with regard to abstract writing. Secondly, the study embarks on tracing the move patterns used by students so as to understand the conformity or deviation of the patterns according to an established model. As such, this study wishes to answer the research questions which are stated in the next section.

1.6 Research Questions:

1. What are the rhetorical move patterns in abstract writing of engineering undergraduate students?
2. What is the probability of occurrence of the combination of move patterns?
3. What are the types and frequency of metadiscourse features found in the moves in abstract writing?
4. How are the metadiscourse features in the moves realized linguistically?

1.7 Significance of the study

This study will enhance knowledge about abstract writing as a genre in technical academic writing. Abstract writing is posited as an essential skill as it provides the first contact in reading a report. Thus the investigation into abstract writing is significant in giving insights into the state of the art of abstract writing by L2 undergraduate students as part of their technical report writing. Students need to write clearly to inform readers about their work to give the appropriate impression that befits tertiary writing and training. In addition, it seeks to give some answers on metadiscourse move patterns. The knowledge related to rhetorical moves and metadiscourse could help novice writers to be more organized and effective in their writings and at the same time, develop the relevant vocabularies. In facilitating the writing, the corpus studied may provide valuable insights into how students manage move patterns as part of developmental writing in a second language context (Schmitt, 2010). The findings of this study could assist language teachers in devising and implementing suitable materials for classroom use targeted at academic writing. In addition, this study could provide data for the empirical used of an abstract writing model which could be incorporated as necessary L2 writing to raise students' awareness of a specific genre in used to meet specific aims of academic writing in tertiary education.

1.8 Definition of Key Terms

This chapter also includes the definition of key terms that will help to guide the investigation. They are as follows.

Genre	This study applies the definition of Genre as defined by Swales (1990) as 'a class of communicative event, the members of which share some set of communicative purposes' (p.58).
Rhetorical Moves	Moves are rhetorical instruments that realize a sub-set of communicative purposes associated with a genre, and as such they are interpreted in the context of the communicative purposes of the genre in question (Bhatia, 2006).
Metadiscourse	Hyland (2005) defines metadiscourse as an umbrella term to 'include an apparently heterogeneous array of cohesive and interpersonal features which help relate a text to its context' (p.16).
Abstracts	Abstracts are defined as short and dense summaries of the main aspects of academic work (Doro, 2013).

1.9 Conclusion

This chapter provides a scenario about the concern of L2 academic writing in general and moves to the genre of abstract writing as a specific skill that is necessary as part of the repertoire of writing skills that university students need to use. However, this particular skill may not have been used successfully. This could be due to the lack of exposure to the skill. In this context, this research was conceptualized to investigate abstract, the sub-genre of academic writing as a communicative act with specific move patterns. These communicative acts were explained based on the theoretical underpinnings of Grabe and Kaplan's (1996) knowledge theory and Swales (1990) and Bhatia's genre theory (1993). Pho's operating model (2008) with its detailed features is identified for use in this study. Insights obtained is expected to provide salient information to inform researchers on the state of abstract writing in terms of the negotiation of its move patterns, the probability of its combination used by the students and the metadiscourse features that characterize their writing. In view of the constructs investigated, the next chapter follows with information about the constructs and connected studies.

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