



University of Tabriz

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Department of English Language

A Thesis Submitted in the Partial fulfilment of the Requirements for the
Degree of Master of Arts in English Language Teaching

Entitled:

**A Move Analysis of Research Articles Introductions in Applied Linguistics
And Mechanical Engineering
A Comparative Study**

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| <p>Abstract</p> <p>Swales' (1990) create a research space or CARS Model of research article introductions has encouraged a lot of research which has investigated the rhetorical organizations of research articles. More particularly, this has caused a number of studies which has analyzed different rhetorical sections of research articles across different disciplines and languages. To this end, basing its analytical framework on Swales' (1990) CARS Model, the present study drew on 60 research articles (30 from the discipline of applied linguistics and 30 from mechanical engineering) to see whether there are any differences in the frequency and types of moves and steps in the two groups of articles analyzed. The articles were all quantitative articles. We first counted the raw frequency of the moves in each group of the articles. Then, the Mann-Whitney Test was used to determine the whether the two groups differed in the use of the moves and steps. The results showed significant differences in the type and frequency of moves with the applied linguists employing more moves in total. Pedagogical implications are discussed.</p> | |

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Chapter one

Introduction

1.1 Introduction

Perhaps the first one who stressed the significance of “text pattern knowledge” regarding writing is Schindler (2000). Silva and Brice (2004, p. 72) consider that “work on text is still dominant in the literature and within textual studies; there is a trend toward greater variety with regard to foci, context, genre, and level”. According to Brett (1994, p. 47), genre analysis:

Offers a system of analysis which allows observations to be made on the repeated communicative functions found in genres and the linguistic exponents of these functions. This type of discourse analysis readily lends itself to the pedagogic concerns of those involved in the communicative ESP and EAP classroom. The communicative functions and their linguistic exponents can be purposefully exploited through tasks and materials which directly reflect those texts that learners have to comprehend and produce”

One way by means of which the patterns of a text are identified is the study of moves in texts or move analysis. It is a tool which helps study moves in genre analysis since moves are semantic and functional units of texts which can be identified because of their communicative purposes and linguistic boundaries. According to Swales (1990), a crucial starting point for a move analysis is to consider the purposes of the target genre, which regulate its propositional contents, schematic pattern, and choice of register.

According to Kanoksilapatham (2005), genre analysis using rhetorical moves was originally developed by Swales (1981) to describe the rhetorical organizational patterns of research articles. He argues that the goal of move analysis is to describe the communicative purposes of a text by categorizing the various discourse units within the text according to their communicative purposes or rhetorical moves. Kanoksilapatham (2005) defines a move as referring to a section of a text that performs a specific communicative function. He points out that each move not only has its own purpose but also contributes to the overall communicative purposes of the genre. Swales (1990) argues that these purposes together constitute the rationale for the genre, which in turn

“shapes the schematic structure of the discourse and influences and constrains choice of content and style,” with texts in a genre exhibiting “various patterns of similarity in terms of structure, style, content and intended audience” (p. 58). The organizational patterns of introduction sections of English research articles (RAs) and PhD theses have been the central attention of the discourse analysts in the context of genre analysis. The results of this line of research have been influential in highlighting the importance of rhetorical organizations of these sections.

Swales' (1990) Create a Research Space (CARS) model for RA introductions has proved that they are organized in a particular way by means of judicious employment of particular moves and sub-moves to effectively communicate their messages. Lore's (2004) defines move as “functional term that refers to a defined and bounded communication act that is designed to contribute to one main communicative objective, that of the whole text (p. 282)”. Later, Swales' Model has been validated by a number of studies investigating the structures of research article introductions written in English (e.g. Bhatia, 1997; Nwogu, 1990; Paltridge, 1994). However, there might be some other studies which argue for the further consolidation of the proposed model: cyclicity (Crookes, 1986), embedding (Samraj, 2002) and other studies have called for a need for new steps in the CARS model to effectively describe the rhetorical organization of the texts analyzed (Anthony, 1999).

A number of studies of RAs from different language groups (Arvay & Tanko, 2004; Burgess, 2002; Lee, 2000; Yakhontova, 2002; Hirano, 2009) have drawn on Swales' Model as an analytical framework to identify the frequency and type of the rhetorical moves and sub-moves (or simply in the Swales' Model, the steps) in their corpora. The Swale's Model has also been used as a framework in a plethora of research on PhD theses written in English to describe their overall organization (e.g. Paltridge, 2002; Thompson, 2001), as well as specific features, such as meta-textual references (Bunton, 1999), stance (Charles, 2003), modal verbs and citation practices (Thompson, 2001), as well as studies such as Bunton (2002; 2005) Kwan (2006) and Ridley (2000). However, for example, Bunton's study (2002) of PhD thesis introductions revealed that a

greater number of steps were identified than those identified by Swales's Model. One possible explanation in the words of Swales (2004) is that since the PhD thesis and the research articles are of different natures, different patterns will expectedly emerge upon analysis. Figure 1 shows the structure of research article introductions identified by Swales (1990). As indicated, there are three moves and their own sub-moves or steps (for a detailed explanation see chapter 2).

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-claiming or

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 RA structure

Figure 1. The structure of research article introductions (Swales, 1990).

1.2 Statement of the Problem

As touched upon earlier, the purpose of the present study is to investigate the type and frequency of the communicative moves and sub-moves or steps in introduction sections of English research articles in the fields of applied linguistics and mechanical engineering. Although there is a lot of research (see Chapter 2) that has examined the

rhetorical structures across different disciplines, to the best knowledge of the researcher, no research has analyzed the communicative strategies of research articles in introduction sections within the fields of applied linguistics and mechanical engineering. This gap provided enough motivation for the researcher to investigate the discourses strategies of the corpora which builds on 60 English research articles (30 written in applied linguistics and 30 written in mechanical engineering).

1.3 Purpose of the study

Using moves and steps are very important in any reaserch article. Due to its importance, the purpose of the present thesis is to examine if articles written in applied linguistics and mechanical engineering differ in the use of the moves and steps.

1.4 Significance and Justification for the Study

The purpose of the present study is twofold: the first and main purpose is to examine the rhetorical structures of research articles in the fields of applied linguistics and mechanical engineering in the light of the dearth of research examining the communicative moves and sub-moves in the introduction sections. The second is to emphasize the importance of raising the prospective writers' awareness about the rhetorical organizations of different disciplines since research shows that there are considerable variations across disciplines.

1.5. Research Questions and Hypotheses

The following research questions and hypotheses were formulated in order to achieve the purpose of the study.

Research Questions

Are there any statistically significant differences in the frequency and type of moves in the articles written in the fields of applied linguistics and mechanical engineering in the introduction sections?

Null Hypothesis

There are no statistically significant differences in the frequency and type of moves in the articles written in the fields of applied linguistics and mechanical engineering in the introduction sections.

Alternative Hypothesis

There are statistically significant differences in the frequency and type of moves in the articles written in the fields of applied linguistics and mechanical engineering in the introduction sections.

1.6. Definitions of key terms

Research articles: Research articles constitute a “key genre used by scientific communities for the dissemination and ratification of knowledge” (Koutsantoni, 2006, p.19).

Move: Swales and Feak (2000) define the move as “bounded communicative act that is designed to achieve one main communicative objective” (p. 35). Or in the words of Lorés (2004: 282), move is “functional term that refers to a defined and bounded communication act that is designed to contribute to one main communicative objective, that of the whole text.”

1.7. Organization of the Study

Chapter 1 gave us an introduction about the topic of this thesis. It then stated the problem that the researcher intends to deal with. After that, it explained the goal and purpose of the study. Then, it stated the research questions and hypotheses and explained the significance of the study. Finally, it defined the key terms and concepts of the present thesis.

Chapter two begins with introduction. It then, gives theoretical backgrounds for the topic of the study and discusses the different analytical models which have been used

to analyze moves in the literature. Then, it reviews the studies which have been done about the topic.

Chapter 3 offers a detailed explanation of the methodological issues relevant to this thesis. It explicitly talks about the number of articles, the analytical framework the researcher uses to analyze the data. Finally, it explains how the data were collected and analyzed.

Chapter four reports the results using tables and figures by explicitly answering the research questions and hypotheses. It then discusses the findings.

Finally, chapter five concludes the thesis, suggests new topics for future researchers, talks about the limitations of the study and provides the pedagogical implications of the study.

1.8. Chapter Summary

The current chapter gave some introductory remarks on the topic of the study. In other words, it stated the problem which the researcher wanted to address in the present thesis. Then, it stated the purpose of the study, the research questions and hypotheses. Finally it explained the significance of the study and provided the definitions of the key terms and concepts.

Chapter Two

Review of the Related Literature

2.1 Introduction

According to Johns (2013), the period of 1990 – 2011 is one of the important periods in the history of ESP which led to the dominance of *genre* in ESP research and was popularized by Swales' *Genre Analysis* (1990). In consequence, new avenues for research into “moves” analysis especially research into contrastive analyses of texts written by non-native English writers were spawned. He also points out that, after the publication of *Genre Analysis* in 1990, moves analysis gained particular popularity in Britain during this period (e.g. Hopkins & Dudley -Evans 1988) and in other parts of the world. In fact, the publication of Swales' book (1990) provided a sound and strong analytical framework for researchers to research on moves analysis focusing on analyzing how rhetorical sections of research articles vary both across disciplines (Salager- Mayer, 1990; Williams, 1999; Holmes, 1997; Connor, 2000; ; Upton and Connor, 2001; Samraj, 2002; Lores, 2004; Samraj, 2004; Kanaksilapatham, 2005; Ozturk, 2007) and languages (Taylor & Chen, 1991; Martin, 2003; Fakhri, 2004; Ansarin & Rashidi, 2009; Hirano, 2009; Loi, Ch. K. & Evans, 2010; Soler-Monreal, Carbonell-Olivares & Gil-Salom, 2011) in terms of moves employed. These studies have all enriched our knowledge of how rhetorical sections in research articles both across disciplines and languages are constructed using moves available to them. Also, there is a number of studies which have dealt with the overall organization of various parts of the research articles, such as the introduction sections (e.g. Swales 1981, 1990; Swales & Najjar 1987; Hirano, 2009), the result sections (Thompson, 1993; Bret, 1994), discussion sections (Hopkins & Dudley-Evans, 1988; Holmes, 1997) and the abstract sections (Salager-Meyer, 1992; Martin, 2003).

Every part of a research article plays an important role in dissemination of the knowledge to the academic circles for which they are written for. That is, each specific part of a research article has its own importance to the whole article. Swales's (1990) arguments are relevant here where he argues that:

The need to re-establish in the eyes of the discourse community
the significance of the research field itself; the need to 'situate'

The actual research in terms of that significance; and the need to Show how this niche in the wider ecosystem will be occupied and Defended (Swales, 1990, p. 142).

As one of the most well-researched sections of the research article (hereafter, RA), introduction has begun to attract researchers' attention since Swales (1981, 1990) introduced his work on the move structure of RA introductions. His work has been then applied to other academic written texts. The cyclical nature of introductions, the use of references in introductions, the investigation of texts written in different languages and cultures using Swales' model (Fredrickson & Swales, 1994), the analysis of citation practices of "expert" writers (Pickard, 1995), the investigation of citation practices in academic texts (Thompson, 2000), extending Swales' division of citation forms (Thompson & Tribble, 2001), and the investigation of RA introductions from two disciplines (Samraj, 2002, 2005) are only a number of different studies carried out on the RA introductions.

Little research on variations across different disciplines has been reported despite the ever-increasing interest in disciplinary differences in academic writing (e.g. Samraj, 2002, 2005).

Posteguillo's (1999) study of RAs in computer science and Nwogu's (1997) study of medical science which has investigated the variations on different disciplinary (or sub-disciplines of a discipline) have called for the need for further research on disciplinary variations. Or instance, Samraj's (2002) study not only revealed disciplinary variations but also showed that the Swales' Create-A-Research-Space (CARS) model did not adequately account for the structure and some important features of all introductions. That is to say, she revealed that the Swales' model did not contain such moves as definitions of terms, exemplifications of difficult concepts, and evaluation of the research presented. This, in turn, called the applicability of the CARS model into question and highlighted the need the model should be modified and these moves be embedded in the

model so that it could be able to account for these moves in RA introductions across disciplines.

Despite the above criticism against the Swales' work on moves analyses of introduction sections of research articles, it proved to be a ground-breaking analytical framework which have been employed to examine the rhetorical moves of RA introductions. The model namely, the *Create-a-Research Space (CARS)* model for research article introductions were successful for a number of reasons:

It was relatively simple, functional, corpus - based, sui-generis for the part-genre for which it applies and, at least in its early days, perhaps offered a schema that had not been widely available. A further Predisposing element for the largely positive response may have been its strong metaphorical coloring – that of ecological competition for research space in a tightly contested territory (Swales, 2004, p.226).

Given the importance of the moves structures or macro-structures of the research articles, the purpose of the present thesis is to investigate the rhetorical organizations of the research articles in the field of the applied linguistics and mechanical engineering. To partially achieve this end, the present chapter is divided into different sections. 2.2. Defines and conceptualizes the concept of the rhetorical moves drawing on the different standpoints put forward by different researchers. 2.3. Explains different analytical frameworks proposed so far for the investigation of moves in different sections of a research article. Notions of disciplines will be explained in 2.4. 2.5 reports the results of the studies which have been carried out to analyze different rhetorical sections with regard to moves employed.

2.2 Top-down versus bottom-up corpus-based approaches to discourse analysis

Biber, Connor and Upton (2006) identify the following seven major analytical steps in order to obtain generalizable corpus-based descriptions of discourse structure:

- ✓ Determining the types of discourse units – the functional/communicative distinctions that discourse units can serve in these texts ('Communicative/Functional Categories')
- ✓ Segmenting all texts in the corpus into well-defined discourse units ('Segmentation')
- ✓ Identifying and labeling the type (or category) of each discourse unit in each text of the corpus ('Classification')
- ✓ Analyzing the linguistic characteristics of each discourse unit in each text of the corpus ('Linguistic analysis of each unit')
- ✓ Describing the typical linguistic characteristics of each discourse unit type, by comparing all discourse units of a given type across the texts of the corpus ('Linguistic description of discourse categories')
- ✓ Describing the discourse structures of particular texts as sequences of discourse units, in terms of the general type or category of each of those units ('Text structure')
- ✓ Describing general patterns of discourse organization that hold across all texts of the corpus ('Discourse organizational tendencies')

They argue that there are two approaches to achieve the above seven analytical steps: a top-down research approach and a bottom-up research approach. There are differences between these two approaches in the order of analytical steps. The analytical framework is developed in a top-down approach at the outset. Then, before the corpus analysis of the discourse begins, unit types are determined. And finally, the entire analysis is then carried out in those terms. However, in a bottom-up approach, first the corpus analysis is carried out. Once they are carried out, the discourse unit types emerge from the corpus patterns.

Another major difference between the two approaches is the role that the functional versus linguistic analyses play in text analysis. The functional framework is primary in the top-down approach. Biber et.al (2006) suggest that the first step in the

analysis is to determine the possible discourse unit types (e.g., move types) and provide an operational definition for each one. This functional framework is then used to segment texts into discourse units. However, in a top-down approach, linguistic analysis is secondary which plays an interpretive role to examine the extent to which functionally-defined discourse units also have systematic linguistic characteristics. They point out that in the bottom-up approach the linguistic description is primary where texts are automatically segmented into vocabulary-based discourse units (VBDU) based on vocabulary patterns. Then, vocabulary-based discourse units are classified into categories based on the use of a wide range of lexico-grammatical features. Functional analysis is secondary in VBDU analysis, serving an interpretive role to investigate the extent to which linguistically-defined discourse unit categories also have systematic functional characteristics.

Move analysis is an instance of a specific genre analysis which was introduced to the field of ESP and EAP as a top-down approach to identify and analyze the discourse structures of both written and spoken texts. According to Biber, Connor and Upton (2006, p. 15)

a text is described as a sequence of ‘moves’, where each move represents a stretch of text serving a particular communicative function. The analysis begins with the development of an analytical framework, identifying and describing the move types that can occur in this genre: these are the functional/communicative distinctions that moves can serve in the target genre

They point out that top-down approach to move analysis is realized by means of corpus-based move analyses. What they mean is that first, a functional analytical framework is developed. Then, that framework is applied to segment texts into discourse units (moves). Finally, the moves and functional move types are analyzed to describe their linguistic characteristics. To illustrate the analysis, they believe that, for example, a move might begin a research article that identifies the topic and the previous studies. It may continue with a move whose function is to identify a gap in previous research. And,