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Metadiscourse of Filipino Writers' Argumentative Texts Across Disciplines

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**METADISCOURSE OF FILIPINO WRITERS' ARGUMENTATIVE TEXTS
ACROSS DISCIPLINES**

LUZ NATO-CORPUZ

**Submitted to the Faculty of the
College of Graduate Studies and Teacher Education Research
Philippine Normal University
In Partial Fulfillment of the Requirements for the
Degree of Doctor of Philosophy in Linguistics
(with specialization in Applied Linguistics)**

October, 2014

APPROVAL SHEET

In partial fulfillment of the requirements for the degree of Doctor of Philosophy in Linguistics with specialization in Applied Linguistics, this dissertation entitled **“METADISCOUSE OF FILIPINO WRITERS’ ARGUMENTATIVE TEXTS ACROSS DISCIPLINES”** prepared and submitted by **MS. LUZ NATO-CORPUZ**, is hereby recommended for approval and acceptance.

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ABSTRACT

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Title: METADISCOURSE OF FILIPINO WRITERS'
ARGUMENTATIVE TEXTS ACROSS DISCIPLINES

Key Concepts:

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The study examined the use of metadiscourse in the dissertations of Filipino writers across four disciplines, Biology, Engineering, Business Administration and Applied Linguistics. The study determined the patterns of Metadiscourse use in the dissertations of Filipino writers in selected disciplines, the similarities and differences in the use of Metadiscourse in terms of the amount and type of Metadiscourse, the factors that may account for the similarities and differences in Metadiscourse use and the implications of the use of metadiscourse by Filipino writers in terms of reader awareness

The study used the descriptive-qualitative research method. Forty dissertations of Filipino writers in the four disciplines were used as data which were taken from two premier state and two private universities in the country. To analyze the data, the Taxonomy of Metadiscourse in Academic Writing by Hyland (2005) was used. To complement Hyland's model, Salager-Meyer's (1997) Taxonomy of hedges, Halliday and Hasan's (1976) concept of cohesion and Samraj's (2008) classifications for citationss were used.

The metadiscourse were identified, categorized and coded independently using Hyland's Model by the researcher and four language coders after which validation of data was conducted. The researcher also examined the data for linguistic features that have metadiscoursal functions but were not included in Hyland's Model. Additional categories were created for this purpose. The frequency of occurrence, percentage of distribution, mean, ranking of Metadiscourse markers were taken for comparison and analysis.

Analyses of the metadiscourse devices used in the dissertations of Filipino writers reveal that the Interactive metadiscourse were more remarkably employed than Interactional metadiscourse. The most predominantly employed Interactive metadiscourse was **Evidentials** in Biology and **Transitions** in Engineering, Business Administration and Applied Linguistics. In the pure sciences, **Evidentials, Transitions and Endophoric markers** were the three highly visible metadiscourse whereas **Transitions, Evidentials** and **Code glosses** were the three mostly employed metadiscourse in the soft sciences.

Moderately used were **Focus markers** and the least employed were the **Frame markers**. The preponderance of Interactive metadiscourse in the dissertations suggests the Filipino writer's primary purpose to convey an organized, informative and persuasive text. Also, persuasiveness of the texts is mostly achieved by the use of Interactive metadiscourse.

Among the Interactional metadiscourse, the **Hedges** appeared to be the most widely employed in all disciplinary fields. **Attitude markers** and **Boosters** were rarely employed while **Engagement markers** and **Self mentions** were the least used in the texts. **Reader markers** were never used in the disciplines except Business Administration. Similarly, **Reader markers**, **Engagement markers** and **Self mentions** were never used in Biology. The predominance of **Hedges** in the dissertations suggests the Filipino writers' exercise of caution to mitigate potential oppositions and to gain communal acceptance from the discourse community. On the other hand, the least use of **Self mentions**, **Reader markers**, and **Engagement markers** among the dissertations suggests a more formal, objective and less engaging text.

Linguistic preferences for certain metadiscourse resources resulted in the similarities and differences in the use of Metadiscourse in terms of the amount and types of Metadiscourse employed in the dissertations. The similarities and differences could be attributed to the primary communicative purpose of the writers, instructions in Research Writing courses, writing convention policy in the

universities, writer's language style and rhetorical strategy and disciplinary culture the writer is exposed to.

The findings also showed that the writers from the Engineering and Business Administration had the highest degree of reader awareness. The most reader-oriented writers came from Business Administration, and the most writer-oriented but the least text-oriented came from Engineering. However, the most text-oriented and the least reader-oriented and writer-oriented writers were the Biologists. Applied Linguists were the second text-oriented writers. This also showed that Filipino academic texts had less reader and author visibility.

Based on the findings of the study, the following are the conclusions drawn: 1) Writers from various disciplines use metadiscourse differently in terms of the amount and the type of metadiscourse devices, hence, the patterns of metadiscourse; 2) Similarities and differences of metadiscourse use reveal the ways by which Filipino writers from various disciplines employ metadiscourse to guide, persuade and engage with their readers to increase text persuasiveness; 3). Metadiscourse use can be constrained by the writer's primary communicative purpose, writing convention policy and research writing instructions, disciplinary culture and individual rhetorical strategy 4) Analysis of the interactional metadiscourse reveals the writers' degree of reader awareness and 5). Metadiscourse use in quantitative and qualitative research is not much affected by the research design.

Based on the findings, the following are the recommendations: For Pedagogy: 1) The judicious use of ***Self mentions*** and ***Engagement markers*** may be encouraged to increase the authorial and reader presence in the texts, 2). The use of ***Frame markers*** in the sciences must be encouraged in research writing to guide readers in navigating the text; 3) The Research writing subjects must integrate the concept of metadiscourse in the section where language and style is discussed; 4) Course syllabi in writing courses must accommodate metadiscourse; and 5) Instructional material designers and writing teachers must include the use of metadiscourse in the writing exercises, workbooks, and modules to make the students aware of the positive effect of metadiscourse in their writing.

For Future Research, 1) Using a larger corpus with computer software is recommended to come up with a more conclusive generalization. 2). A similar inquiry on metadiscourse use in other disciplines is also recommended to look into the rhetorical preferences of other writers and their ways by which they guide their readers in reading their texts; 3) Metadiscourse in the argumentative and expository texts, women writing, advertisements, spoken discourse such as political speeches and other forms must be explored for research to look into the ways writers employ metadiscourse to achieve their goals in writing.

ABSTRAK

Pangalan: LUZ NATO-CORPUZ

Pamagat ng Pag-aaral: METADISCOURSE NG MGA ARGUMENTATIBONG
TEKSTO NG MGA PILIPINONG MANUNULAT SA
IBA'T IBANG DISIPLINA

Mahahalagang Konsepto: METADISCOURSE
ARGUMENTASYON
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Ang pag-aaral ay nagsuri sa paggamit ng metadiscourse sa mga disertasyon ng mga Pilipinong manunulat sa apat na disiplina; Biology, Engineering, Business Administration at Applied Linguistics. Ang pag-aaral ay tumingin sa patern ng paggamit ng metadiscourse sa mga disertasyon ng mga Pilipinong manunulat sa mga piling disiplina, sa mga pagkakatulad at pagkakaiba sa paggamit ng metadiscourse, sa mga salik na makakapagpaliwanag sa pagkakatulad at pagkakaiba sa paggamit ng metadiscourse at sa mga

implikasyon sa paggamit ng metadiscourse ng mga Pilipinong manunulat batay sa kamalayan sa mambabasa.

Ang pag-aaral ay gumamit ng descriptive-qualitative na paraan ng pananaliksik. Apatnapung disertasyon ng mga Pilipinong manunulat sa apat na disiplina ay ginamit bilang datos na hinango sa dalawang pangunahing pampubliko at dalawang pribadong unibersidad sa bansa. Upang masuri ang mga datos, ang Taxonomy ng Metadiscourse sa Akademikong Pagsusulat ni Hyland (2005), Taxonomy ng Hedges ni Salager-Meyer (1997), konsepto ng kohesyon ni Halliday at Hasan (1976) at klasipikasyon ng citations ni Samraj (2008) ay ginamit.

Ang metadiscourse ay kanya-kanyang kinilala, kinategorya at nilagyan ng code ng mananaliksik at mga koders gamit ang modelo ni Hyland na sinundan ng balidasyon ng mga datos. Sinuri ng mananaliksik ang mga datos sa mga linguistic features na may metadiscoursal na gamit ngunit hindi nakapaloob sa modelo ni Hyland. Karagdagang kategorya ay ginawa para sa mga ito. Ang dalas ng gamit, porsiyento ng distribusyon, mean at ranking ng metadiscourse ay kinuha para sa pagkukumpara at pag-aanalisa.

Ipinakita ng analisis ng metadiscourse sa disertasyon ng mga Pilipinong manunulat na ang interactive metadiscourse ang mas higit na ginamit kaysa Interactional metadiscourse. Ang pinakagamitin na Interactive metadiscourse ay *Evidentials* sa Biology at *Transitions* sa Engineering, Business Administration at Applied Linguistics. Sa mga purong siyensya, ang *Evidentials*, *Transitions* at

Endophoric markers ang tatlong may pinakamataas na paggamit samantalang ang *Transitions*, *Evidentials* at *Code glosses* ang tatlong may pinakamatas na paggamit sa mga soft sciences. Bahagyang nagamit ang *Focus markers* at ang may pinakamababang paggamit ay ang *Frame markers*. Ang rami ng Interactive metadiscourse sa disertasyon ay nagpahiwatig na ang pangunahing layunin ng mga Pilipinong manunulat ay magpahayag ng organisado, impormatibo at mapanghikayat na panulat. Ang pagiging mapanghikayat na teksto ay kadalasang nakakamit sa paggamit ng Interactive metadiscourse.

Sa mga Interactional na metadiscourse, ang *Hedges* ang may pinakamadaming paggamit sa lahat ng disiplina. Ang *Attitude markers* at *Boosters* ay may katamtamang paggamit habang ang *Engagement markers* at *Self mentions* ay may pinakakakaunting paggamit sa mga panulat. Ang *Reader markers* ay hindi ginamit sa mga disiplina maliban sa Business Administration. Gayun din, ang *Reader markers*, *Engagement markers* at *Self mentions* ay hindi ginamit sa Biology. Ang malawak na paggamit sa *Hedges* sa mga disertasyon ay nagpahiwatig na ang mga Pilipinong manunulat ay maingat upang maiwasan ang mga potensyal na pagsalungat at upang makahikayat ng komunal na pagtanggap sa discourse community. Sa isang banda, ang madalang na paggamit sa *Self mentions*, *Reader markers* at *Engagement markers* sa mga disertasyon ay nagpahiwatig ng mas pormal, obhektibo at menos mapanalastas na panulat.

Ang pagkahilig sa partikular na metadiscourse ay nagdulot sa pagkakatulad at pagkakaiba sa paggamit ng metadiscourse batay sa dami at uri nito na ginamit sa mga disertasyon. Ang pagkakatulad at pagkakaiba ay maaring resulta ng pangunahing layunin ng komunikasyon ng mga manunulat, ang pagtuturo sa mga asignaturang Pananaliksik, ang panuntunan sa pagsulat sa mga unibersidad, ang istilo ng panunulat at estratehiyang retorikal at kultura ng disiplina na kinamulatan ng manunulat.

Ang mga resulta ng pag-aaral ay nagpakita na ang mga manunulat sa Engineering at Business Administration ay may pinakamataas na kamalayan sa mambabasa. Ang may pinaka reader-oriented ay galing sa Engineering. Subalit ang may pinaka text-oriented at ang may pinakamababang reader-oriented at writer-oriented ay ang mga manunulat sa Biology. Ang mga Applied Linguists ay pangalawa sa pinaka text-oriented na manunulat. Ito ay nagpapakita na ang akademikong panulat sa Filipino ay may mababang kamalayan sa mambabasa at manunulat.

Batay sa resulta ng pag-aaral, ang mga sumusunod na konklusyon ay nahango: 1) Ang mga manunulat sa iba't-ibang disiplina ay may pagkakaiba sa paggamit ng metadiscourse batay sa dami at uri ng metadiscourse, kung kaya may patterns ng metadiscourse; 2) Ang pagkakatulad at pagkakaiba sa paggamit ng metadiscourse ay nagpakita ng mga pamamaraan kung paano ang mga Pilipinong manunulat sa iba't-ibang disiplina ay gumagamit ng metadiscourse para magabayan, mahikayat at makipagtalastasan sa mga mambabasa upang

mapalakas ang paghikayat ng panulat; 3) Ang paggamit ng metadiscourse ay maaaring malimita ng pangunahing layunin ng komunikasyon, panuntunan ng panulat at instruksiyon sa asignaturang panunulat, disiplina at indibidwal na estratehiyang retorikal; 4) Ang analisis ng Interactional metadiscourse ay nagpakita ng antas ng kamalayan sa mambabasa ng manunulat; at 5) Ang paggamit ng metadiscourse ay hindi gaanong apektado ng quantitative at qualitative na disenyo sa pananaliksi.

Batay sa resulta ng pag-aaral, ang mga sumusunod ay ang mga rekomendasyon. Sa pagtuturo, 1) Ang mapanuri na paggamit ng *Self mentions* at *Engagement markers* ay maaaring ihikayat upang mapalakas ang presensya ng manunulat at mambabasa sa mga panulat; 2) Ang paggamit ng *Frame markers* sa mga siyensya ay dapat ihikayat sa panunulat ng pananaliksik upang magabayan ang mga mambabasa sa pagbasa ng teksto; 3) Ang konsepto ng metadiscourse ay dapat na maisali sa bahagi kung saan natatalakay ang linguwahe at istilo; 4) Ang metadiscourse ay dapat na maipaloob sa mga silabus; 5) Ang paggamit ng metadiscourse ay dapat na maisali ng mga taga-disenyo ng materyales panginstruksiyonal at mga guro sa panulat sa mga ehersisyong panunulat, workbooks at modules upang mailagay sa kamalayan ng mga mag-aaral ang positibong epekto ng metadiscourse sa pagsusulat.

Sa mga susunod na pananaliksik: 1) Ang paggamit ng mas malawak na datos gamit ang computer software ay rekomendado upang makamit ang mas konklusibong heneralisasyon; 2) Ang magkatulad na pananaliksik sa

metadiscourse sa ibang disiplina ay rekomendado upang sumuri sa mga retorikang pagkahilig ng mga manunulat at sa mga pamamaraan kung paano sila gumabay sa mga mambabasa ng kanilang panulat; 3) Ang metadiscourse sa mga argumentatibo at expositoring panunulat, panulat ng mga babaeng manunulat, adbertisments, diskursong pasalita tulad ng diskursong politikal at iba pang uri ay dapat na matalakay sa pananaliksik para suriin ang pamamaraan ng mga manunulat sa paggamit ng metadiscourse upang makamit ang kanilang mga layunin sa pagsulat.

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Chapter I

THE PROBLEM AND ITS BACKGROUND

1.1 Introduction

Academic discourse is one area of study that has gained increased attention among scholars and linguists in recent years. A considerable amount of research output in research articles, research grant proposals, book reviews, textbooks, theses, and dissertations affirm the growing interest in academic writing. Recently, there is also a growing body of literature in academic and professional writing among non-native speakers of English in Asian countries (Arulando, 2006; Pornprapha, 2009; Simin and Tavangar; 2009; Safnil, 2003). Some local studies done using genre-approach to different texts were focused on research articles (Mercado, 2006; Miranda, 1991), theses and dissertation abstracts (Zafra-Taña, 2004) journalistic articles (Cabigao, 2007), and sermons (Cheong, 1998). Local studies in academic and other forms of writing have also expanded in the field of Contrastive Rhetoric and Discourse Analysis. For example, travel advisory (Alcoberes, 2010), news editorials, (Dayag, 2009), journal articles (Villegas, 2009), application letters (Songcuan, 2009), presidential speeches (Gonong, 2007), letters of complaint (Madrunio, 2003), advice columns (Rojo- Laurilla, 2002), letters to the Editors (Gonzales, 2002), news leads (Gustilo, 2002), opinion section in newspapers (Genuino, 2002), criminal

appeal cases (Brylko, 2002) and selected textbooks (De Leon, 2000) are available in local libraries.

The thesis or dissertation is an academic writing that is least explored by discourse analysts and is “largely avoided” because of its “daunting size” (Swales, 1990, p. 18). Paltridge (2002) also cited the inaccessibility of the texts as one of the reasons for their being understudied as theses and dissertations are often difficult to obtain from university libraries and even more difficult to secure from outside tertiary institutions. Being the least explored, dissertations written by Filipino second language writers of English in postgraduate studies motivated the researcher to look into the nature of this writing. And because a thesis or a dissertation is an essential requirement for any student wishing to finish a degree, whether baccalaureate, master’s or doctorate degree, the researcher believes that this area of academic writing deserves investigation.

Writing a thesis or a dissertation is a difficult and a challenging task among collegiate as well as graduate students. It is a difficult process not only among ESL or EFL students but also among native speaker students (Paltridge, 2002). Casanave and Hubbard (1992) revealed that all students at the graduate level regardless of the native language experience difficulty with discourse level organization and development of ideas. Although in the study of Casanave and Hubbard on the writing problems of doctoral students (both native and non-native speakers), these “global features” of writing, such as quality of content and organization of ideas are perceived to be more-important, non-native speakers

who are doctoral students appear to have less problems with these but have more problems with local features such as grammar, diction, vocabulary, and spelling. This probably explains why adult ESL writing is characterized to be “highly comprehensible”, but “generally irritating and academically unacceptable” (Santos, 1988). Hyland (2003), Silva (1993) and Hinkel (2003) suggest that the lack of lexical resources in their linguistic repertoire accounts for the less fluent, less productive and less effective writing of the non-native speakers. However, Cadman (1997) reports that difficulty in writing among international graduate students lies in the students’ confusion and failure to create a new identity in order for them to participate as expected in the mainstream. Studies, therefore, show that not only novice or apprentice writers but also advanced students with high level of language proficiency experience difficulty in academic discourse (Casanave, 1995; Swales, 1990). Their problems with academic writing is even more compounded by the use of the English language as a medium of writing since English is regarded as the language of research and scholarship (Swales, 1990).

Effective writing is necessary in academic discourse in order to effectively disseminate new knowledge and information as an offshoot of research activity. Academic researchers and graduate student writers need to consider their intended readers who are members of a particular discourse community to effectively communicate new information and research outputs. Academic writers wishing to be accepted as legitimate members of a particular disciplinary

culture need to be aware of the writing conventions of the discourse community they intend to belong (Swales, 1990; Bhatia, 1993). However, cultural discursive practices differ depending on the disciplinary culture one is socialized into and the native language culture one is brought up in. Being the case, the academic writer has to adopt the writing conventions of the disciplinary culture (that includes macrostructure and micro-linguistic features, such as metadiscourse) and the second language culture whose members s/he intends to address. Since this is true to all tertiary institutions, there is, therefore, a strong need and demand for a continuous student training in academic writing in English among English as a Second Language (ESL)/ English as a Foreign Language (EFL) students seeking a degree or a higher degree.

The Introduction and the Results and Discussion sections of a research report are perhaps the most difficult sections to write. The complexity of the presentation of the arguments [Gupta, 1995 as cited by Safnil, 2003] and the inavailability of rhetorical strategies present problems to research writers. Since academic discourse, such as thesis or dissertation, is an important venue by which knowledge and information are transmitted, effective communication is an end-goal of every writer, whereby this is made possible with the aid of metadiscourse. In his preliminary findings in the study of dissertations, Swales (1990) claims that “the key differentiating aspect of dissertation writing is a much greater use of metadiscourse” (p. 188); that is, writing more about the text rather than about the subject matter in order to direct the readers on how to read,

evaluate, and react to the evolving text, thus increasing the effectiveness of communication.

Effective communication of ideas is not only concerned with the propositional information or the ideational meaning (Halliday, 1974) of a text but must also be concerned with the ways these propositional contents are organized to facilitate reader's understanding and interpretation of the writer's message, the ways writers engage and negotiate with their readers as they assess their knowledge of the world, their processing abilities, and their textual awareness (Hyland, 2005, Hyland and Tse, 2004). Metadiscourse resources serve to assist academic writers and student researchers to explicitly and logically marshal data and information and to convincingly persuade potential inimical readers of claims put forward.

Studies on metadiscourse (e.g. Mauranen,1993; Valero-Garces, 1996; Moreno, 1997; Vassileva, 2001; Dahl, 2004; Peterlin, 2005; Abdi, 2009; Zarei and Mansoori, 2007; Simin and Tavangar, 2009; Hyland, 1998; 2005; Cheng and Steffensen, 1996; Bunton, 1999) conducted abroad show a considerable number. However, local literatures reveal a dearth of materials on metadiscourse, particularly in dissertation writing of Filipino second language writers of English. With the paucity of research output in this area of investigation and with the desire to gain insights into the nature and characteristics of the writing of advanced Filipino second language writers of English across disciplines, this study was conceptualized. This ultimately aims to

improve writing instructions in the tertiary institutions especially undergraduate and graduate students undertaking research. The study has its pedagogical implications mainly for the teaching of academic and research writing in English for Academic Purposes (EAP) and English for Specific Purposes (ESP). Hopefully, the findings of this study will provide insights into the rationale underlying the Filipino academic writers' choice of linguistic resources across disciplinary fields.

The researcher believes that knowledge and awareness of metadiscourse resources as rhetorical strategies to effectively inform and persuade intended readers will help students undertaking research write their thesis and dissertation. Therefore, knowing what appropriate metadiscourse to use to structure academic discourse and to increase writer's credibility to achieve text persuasiveness is important; hence, this is made possible by studying the nature of second language writing so as to institute reforms and devise necessary instructional interventions in classroom teaching, syllabus designing and curriculum planning.

A comparative study on metadiscourse use across disciplines would disclose similarities as well as differences in the linguistic preferences of Filipino second language writers which could be explained or accounted for by a number of potential factors that may include genre comparability, register awareness, cultural conventions and general learner strategies (Adel, 2006, p 141). Knowing the differences and the possible causes of such could address some issues of

second language learners and other non-native speakers of English. Consequently, increased awareness on variation in writing conventions and linguistic preferences among writers from various disciplinary backgrounds leads to an in-depth understanding, tolerance, and acceptance of varying discursive practices.

1.2. Theoretical Bases

This study is mainly anchored on the theories and principles of Metadiscourse, argumentation, and academic writing. The theoretical base also draws upon the concepts of writer-reader interactions, audience awareness, propositional and non-propositional discourse to supplement the understanding of metadiscourse.

To complement Hyland's model, Salager-Meyer's Taxonomy of hedges, Halliday and Hasan's concept of cohesion focusing on conjunctions, and Samraj's classification of citation were used.

1.2.1 Metadiscourse

Metadiscourse is a self-reflexive linguistic resource used to organize a discourse or to manifest the writer's stance towards either its text or the imagined potential reader of the text (Hyland, 2000; 2005; Hyland and Tse 2004). According to Hyland (2004), it consists of homogenous array of cohesive and interpersonal features which help relate a text to its context by assisting

readers to connect, organize, and interpret material in a way preferred by the writer and with regard to the understanding and values of a particular discourse community (Hyland, 1998; Hyland and Tse, 2004).

Vande Kopple (1985) refers to metadiscourse as linguistic features that do not add propositional information to the text but rather help readers organize, classify, interpret, evaluate and react to it (p. 83). In his view, metadiscourse's main function, therefore, is not to supply information but to assist readers on how to read the text. Lautamatti (1978) refers to it as "non-topical linguistic material" which is irrelevant to discourse topic but key to understanding discourse as a whole. This notion of metadiscourse is reinforced by Crismore and Farnsworth (1989) by claiming that writers employ metadiscourse " to act on readers, guiding and directing rather than informing them about context and carrying an implicit Socratic dialogues with attitudes." (p.92). Likewise Adel (2006) affirms that " the basic functions of metadiscourse are to guide the readers through the text and to comment on the use of language in the text ". (p. 20). She defines metadiscourse as " discourse about the evolving discourse or the writer's commentary on her ongoing text." (p.1). Adel's concept of metadiscourse makes reference to the current discourse and underscores the concept of reflexivity which she describes as " the capacity of natural language to refer to or describe itself " (p. 1).

Through metadiscourse, the writer is permitted to intrude into the text by organizing the text (textual) and by conveying attitudes and feelings and by

interacting with the reader (interpersonal) (Crismore, Markkanen, and Steffensen, 1993). With these roles metadiscourse performs to text, metadiscourse is viewed to serve both textual and interpersonal functions of language. (Halliday 1985; Hyland 2005; Hyland and Tse 2004).

Much of the earlier work on language use focused on the informational materials or the content of the text, but seldom on the ways these propositional information are made to organize text. With metadiscourse, the interpersonal dimension of the macrofunctions of language by Halliday (1973) is given prominence.

The concept of metadiscourse is based on a view of writing as a social and communicative engagement between writer and reader (Hyland, 2004, 2005) and this is best exemplified in the textual and interpersonal metadiscourse resources. Metadiscourse is also anchored on Michael Halliday's (1994) three metafunctions of language which include ideational function, textual function, and interpersonal function. According to Halliday (1994) the ideational function serves to express people's experiences, ideas and perceptions of the world, textual function serves to organize text, and interpersonal function serves to facilitate interaction and allows people to negotiate and engage with others. However, metadiscourse is more concerned with the textual and interpersonal functions of language.

Notably, metadiscourse is a relative and 'fuzzy' concept which means the absence of definite boundaries, and thus "it is difficult to make categorical distinctions between what is and what is not metadiscourse" (Adel, 2006 p. 22). This characteristic of being 'fuzzy' makes identification of metadiscourse problematic. Academic scholars also agree that metadiscourse is a heterogeneous category which can be realized in an array of linguistic forms ranging from punctuation and typographic marks (such as comma, colon, underlining, etc), affixes (like the clitics of Finnish language as cited by Mauranen, 1993) to phrases, clauses, sentences and even series of sentences. Furthermore, it is multi-functional and context-dependent in that it can perform more than one function, acting either as metadiscourse or as propositional depending on the context (Hyland, 2005, Hyland and Tse, 2004).

1.2.1.1. Principles of Metadiscourse

The concept of metadiscourse is difficult to define and delimit since according to various academic scholars (Adel, 2006; Hyland, 2005; Markkanen, Steffen and Crismore, 1993), it is fuzzy and relative, context-dependent, multifunctional, and realizable in various linguistic forms. To facilitate better comprehension of metadiscourse, Hyland (2005 p.38) and Hyland and Tse (2004, p.159) outline three key principles of metadiscourse in the analysis of academic writing. These are as follows:

- That metadiscourse is distinct from propositional aspects of discourse

- That the term metadiscourse refers to those aspects of the text that embody writer-reader interactions,
- That metadiscourse distinguishes relations which are external to the text from those that are internal

Propositional vs. Non –propositional Discourse

This first principle sees metadiscourse as distinct from propositional content of a discourse. Metadiscourse is defined as linguistic resources that do not add propositional content to the text (Vande Kopple, 1985). The distinction, therefore, between propositional content and non-propositional metadiscourse is required as a starting point for identifying metadiscourse resources. Vande Kopple (1985 p.83) explicitly draws the line between propositional content and metadiscourse and suggests that writing involves two levels:

On one level we supply information about the subject of our text. On this level, we expand propositional content. On the other level, the level of metadiscourse, we do not add propositional materials but help our readers organize, classify, interpret, evaluate and react to such material.

Only linguistic feature, therefore, that does not add or supply information to the text is considered metadiscourse . Metadiscourse, then, are linguistic items that help readers organize, interpret, and evaluate the information in a text. (Markkanen, Steffensen, and Crismore, 1993; Vande Kopple, 1985). On the other hand, Hyland and Tse (2004) refer to proposition as any statement that concerns thoughts and states of affairs in the world outside the text. They

added that propositional material is “something that can be argued about, affirmed, desired, doubted, insisted upon, qualified, tempered, regretted and so on” (Halliday, 1994 as cited by Hyland and Tse, 2004).

Propositional content has equivalence to Halliday’s (1994) ideational, experiential or referential function that serves to express the writers’ ideas and experiences and helps structure and shape the writer’s and reader’s understanding of the world. Metadiscourse serves textual and interpersonal functions of language based on Halliday’s tripartite metafunctions of language. Unlike propositional discourse which seeks to inform readers of events, ideas and people in the world, metadiscourse seeks to organize informational content of text, conveys writer’s beliefs and attitudes and promotes author’s credibility. Both these two component elements of a text, propositional discourse and metadiscourse, occur together in texts. Though the former is regarded as primary level discourse and the latter as secondary level discourse, metadiscourse “does not simply support propositional content but act as the means by which propositional content is made coherent, intelligible and persuasive to a particular audience.” (Hyland 2005; Hyland and Tse, 2004).

Writer-Reader Interactions

The second principle views metadiscourse as linguistic elements facilitative of interactions between writers and readers for effective communication. This principle rejects the duality of textual and interpersonal

functions and considers that all metadiscourse refers to interactions between writer and reader and are, therefore, interpersonal. To quote Hyland (2005, p. 41)

So- called textual metadiscourse is therefore actually another aspect of the interpersonal features of a text. It concerns decisions by the writer to highlight certain relationships and aspects of organization to accommodate reader's understandings, guide their reading, and make them aware of the writer's preferred interpretations. We can, and then say that all metadiscourse refers to interactions between the writer and reader.

The textual-interpersonal categorization stems from Halliday's (1994) tripartite metafunctions which distinguish ideational, textual, and interpersonal components of a text. Accordingly, ideational element refers to the expression of the ways writers encode experiences of the world; textual component concerns the expression of content into logical, coherent text; and interpersonal conveys the expression of social relations and personal attitudes (also called transactional and interactional by Brown and Yule, 1983).

To Vande Kopple (1985), interpersonal metadiscourse can help express our personalities and our reactions to the propositional content of our text and characterize the interaction we would like to have with our readers about that content; whereas, textual metadiscourse “ help us show how we link and relate individual propositions so that they form a cohesive and coherent text and how individual elements of those propositions make sense in conjunction with other elements of the text in a particular situation” (p. 87).

Though this exists, distinguishing textual from interpersonal function of metadiscourse is rather problematic because textual resources do not constitute a neatly separable set which can be clearly distinguished from either propositional or interpersonal aspects (Hyland and Tse, 2004). Textual metadiscourse function is mostly signaled by **conjunctions** (e.g. so, because, and), **adverbials** (e.g. subsequently, first, therefore) together with **paraphrasing expressions** (e.g. as a result, on the other hand, needless to say). Hyland (2005) cited the case of conjunction which can function textually by relating a clause to the preceding text and function ideationally by indicating the logical relationships between ideas. Conjunctions function textually not only to bind together ideas in a text but also elaborate or enhance propositional information. By elaborating propositional meaning of a text, conjunction functions interpersonally by indicating the writer's consideration of the reader's cognitive processing.

This overlapping of functions is not uncommon in metadiscourse because it is multi- functional, not only because it functions differently in different context but also because there are times it assumes two functions in the same context. The explicit signalling of connections and relationships between elements in a text is not a mere function of textual or interactive metadiscourse but it is linked to the writer's awareness of self and of the intended reader (Hyland and Tse, 2004). Hyland (2005) points out that “ by making reference to the text, the audience or the message, the writer indicates his or her sensitivity to the context

of the discourse, by making prediction about what the audience is likely to know and how it is likely to respond." (p. 45).

Internal and External Relations

The distinction between external and internal relations or between matters in the world and those in the discourse is central in determining whether a linguistic resource is assigned a propositional or a metadiscourse value. Reference to reality inside the text in the propositional discourse itself and reference to reality of the world outside the text is a key feature that distinguishes metadiscourse resources from non-metadiscoursive resources.

Hyland and Tse (2004) and Hyland (2005) cited connective linguistic items, hedges, and boosters as good examples of metadiscourse elements which could have metadiscoursal function on ideational or propositional statements on the basis of its linguistic reference. According to Hyland (2005), connectives can function to either connect steps in a proposition, organizing the discourse as an argument, thereby indicating internal relations or connect events in the world outside the proposition, thus, indicating an external relation.

Similarly, Hyland and Tse (2004) explained further that, hedges can be metadiscourse markers when they express writer's inferences or estimation about the possibility of something but can be propositional when they concern the rule of enabling conditions or disabling circumstances. For example in the sentences

below, they considered the modality marker “**could**” metadiscourse in sentence (1) because it refers to the writer’s inference of possibility, but propositional in sentence (2) because the modal suggests an outcome that depends on the external or disabling conditions.

1) The diverse insect fauna reported from the reedbeds in Mai Po suggests that the reedbeds **could** potentially be an important habitat for a wide variety of animal taxa.

2) This statement obviously exploits maxim of quantity at the expense of the maxim of quality because the salesperson **could** have simply said: this company is also very famous in Taiwan.

In sentence (1) the reader’s attention is oriented to the text itself and according to Adel (2006), this is central to the concept of metadiscourse. However, Adel is quick to note that though reference to the text on the writing process is a distinguishing feature of metadiscourse (as claimed by Mauranen, 1993), the concept of metadiscourse is not restricted to the text itself but also important to the writer and reader interactions.

1.2.1.2. Model of Metadiscourse for Academic Writing

Hyland and Tse (2004) recognize metadiscourse as the writer’s reference to the text, the reader, and the writer himself/ herself. Their model draws upon the earlier model of Thompson (2001) and Hyland (1998a; 2000) (as cited by Hyland and Tse, 2004) and recognizes the interactive and interactional broad categories of discourse resources based on their communicative functions and

roles in relation to other texts. The categories include interactive and interactional metadiscourse. In their published articles, Hyland and Tse (2004) and Hyland (2005) provide the definitions for the categories and subcategories of their metadiscourse model. These are as follows:

Interactive resources refer to discourse features which are concerned with the ways of organizing discourse, guiding the readers in interpreting and evaluating the text. On the other hand, **Interactional resources** are discourse elements that involve the readers in the argument by engaging them in the argument, expressing their attitude, judgments, and degree of commitments to the propositions in their text. Interactional metadiscourse markers include: **Hedges**, **Boosters**, **Attitude markers**, **Engagement markers** and **Self-mentions**. **Hedges** express the writer's degree of commitment to the propositional content, while **Boosters** convey degree of certainty and emphasis towards the propositions of the text. **Attitude markers** indicate the writer's assessment of the propositional information through expression of the agreement or disagreement, surprise, obligation, etc. **Engagement markers** address readers by including them as participants in the text through second person pronouns, imperative, questions and asides (Hyland 2001; Hyland and Tse 2004). **Self-mentions** manifest the degree of the writer's presence through the use of first person pronouns and possessives.

On the other hand, **Interactive metadiscourse** includes the sub-category of **Transitions**, **Frame markers**, **Endophoric markers**, **Evidentials**, and **Code**

glosses. The **Transition** subcategory shows semantic connections or links between or among discourse items in the text with other items and is mainly signaled by the employment of conjunctions expressing additive, contrastive, and consequential steps in the discourse. **Frame markers** are rhetorical devices to express text boundaries, to sequence, to label text stages, to announce discourse goals or to indicate topic shifts. **Endophoric markers** refer to textual information in other parts of the text, thus assist readers in recovering the writer's intention, while **Evidentials** indicate the source of textual information itself originating outside the current text or the evolving discourse. **Code glosses** are expressions that aid readers in grasping the ideational or propositional information through explanation, definition, illustration, etc.

This study is anchored on the theory that metadiscourse is a non-propositional linguistic device that writers use to explicitly organize their text in order to guide their readers in understanding, interpreting, and evaluating the information presented in the text, to engage their readers and signal their attitudes to their discourse, and establish solidarity and credibility in order to promote acceptance of their text.

The present study also examined the metadiscourse features using Salager-Meyer's (1997) Taxonomy of Hedges to facilitate ease of identification, Halliday and Hasan's (1976) concept of Cohesion focusing on conjunctions, and Samraj's (2008) classification of Citations.

Following Salager-Meyer's (1997) most widely used taxonomy in academic discourse, the categories are presented below:

1. Modal auxiliary verbs

These are modal verbs claimed to be the most straightforward and widely used means of expressing modality in English academic writing.

The most common ones include *may, might, can, could, would, should*

2. Modal lexical verbs

These are verbs that perform acts such as doubting and evaluating. These are realized in the following expressions: *to seem, to appear, to believe, to suggest, to estimate, to tend, to indicate, to think, etc.*

3. Adjectival, adverbial and nominal modal phrases

These hedges include probability adjectives such as *possible, probable, un/likely*; nouns like *assumption, claim, possibility, estimate, suggestion, etc.*; and adverbs such as *perhaps, possibly, probably, likely, presumably apparently, virtually, etc.*

4. Approximators of degree, quantity, frequency and time.

Approximations are expressed in the following:
approximately, roughly, about, often, occasionally, generally, usually, somewhat, relatively, etc.

5. Introductory phrases

This include phrases expressing the writer's personal doubt and direct involvement such as *I believe, to my/ our knowledge, it is our view that, we feel that, etc.*

6. "If " clauses

This category includes expressions of conditionals such as *If true, if anything, if, etc.*

7. Compound hedges

These are phrases consisting of several hedges, the most common form being: 1) a modal auxiliary combined with a lexical verb with a hedging content (e.g. *it would appear*), and 2.) a lexical verb followed by a hedging adverb or adjective where the adverb (or adjective) reinforces the hedge already inherent in the lexical verb (e.g. *it seems reasonable / probable*). Such compound hedges can be double hedges (*it may suggest that, it seems likely that, it would indicate that, this probably indicates*); treble hedges (*it*

seems reasonable to assume that); quadruple hedges (*it would seem somewhat unlikely that, it may appear somewhat speculative that*) ; and so on.

In examining Transitions, Halliday and Hasan's concept of Cohesion was used. Cohesion aids in comprehending meaning in extended stretches of discourse such as in dissertations. Of relevance to the study is the use of conjunctions since Transitions in Hyland's subcategory generally consist of conjunctions. According to Halliday and Hasan (1976) cohesion refers to

"relations of meaning that exist within the text " (p.4) and that meaning of an element in the discourse depends on another within the text. It involves " a set of semantic resources" – a means of linking a sentence with what has gone before

(p. 10). Cohesion is realized partly through the grammar and partly through the lexis which are referred to as grammatical cohesion and lexical cohesion, respectively. Grammatical cohesion includes reference, substitution, and ellipsis. Meanwhile, lexical cohesion occurs with reiteration in subsequent part of the text of a lexical item that relates to previously occurring item in the text. (Halliday and Hasan,1976). On the borderline of grammatical and lexical cohesion is conjunction. The specific conjunctive relations that are semantically represented in the linguistic system are as follows: additive, adversative, causal and temporal. Such conjunctive relations are grammatically represented in the linguistic system

by discourse adjuncts, adverbial groups, and prepositional groups (Halliday and Hasan, 1976).

In relation to Evidentials, Samraj's (2008) classification of Citations was used as basis for examining expressions that fall under this subcategory in order to explore intertextual links. The number of citations was analyzed whether these citations were classified as integral citations or non-integral citations. In integral citations, the name of the cited author of previous research appears in the citing sentence; whereas, in the non-integral citation, the name of the cited author in the previous research appears in parenthesis and is not foregrounded in the text.

1.2.2 Argumentative Writing

Academic writing is widely exercised in secondary, tertiary, and graduate education in the form of expository compositions, argumentative essays, laboratory reports, grant proposals, and research reports which include thesis and dissertation writing (Swales, 1990; Bhatia, 1993). These forms of writing exemplify the use of argumentative discourse as each one of these presents the veracity of their propositions, the validity of their claims, and the novelty and significance of their studies. Werlich (1976 as cited by Kachru and Smith, 2008) considers scientific argumentation which is exemplified in scientific articles,

research journals, and theses and dissertations, as argumentative text. Interestingly, it is in the Introduction and Results and Discussion sections of a scientific research report that most argumentation is displayed as dictated by the communicative purpose and rhetorical function of the text.

Argumentation is a form of discourse used to make the reader think or act by appealing both to the understanding in order to convince the audience or the readers and to the emotions in order to persuade others. (Fernando, Habana and Cinco, 1988; Tiempo and Tiempo, 1980). It focuses on rational and logical appeal (Connor, 1996). To persuade is to present arguments and opinions based on sound reason in order for the listener or reader to accept the conclusion of the argument as more probable and to present a clear and logical presentation of facts supported by evidence (p. 329).

Though oftentimes used synonymously, there is a thin line dividing between argumentation and persuasion. Argumentation is concerned with expressing the writer's evaluation or judgment about the truth of things through an appeal to reason while persuasion is concerned primarily with influencing human behavior, their attitudes, beliefs, opinions and acts. (Ramage and Bean, 1995). Academic writing involves both argumentation and persuasion. Connor views the production of argumentative text as a writer's or speaker's cognitive process of problem solving, the goal of which is to influence or change the reader's or hearer's initial opposing position to conform with that of the writer's or speaker's. Kachru (1995) also claims that "in an argumentative text the goal is

to prove that the view put forward in the text is right and that competing opinions are wrong.” (p. 27). Also, according to Kachru and Smith (2008), the purpose of the argumentative-persuasive text in the Inner Circle is to convince the readers of the acceptability of one’s position.

Dayag (2009) views editorials as argumentative texts as they take a stand or position on an issue and make a claim. Similarly, this study takes the position that theses and dissertations are argumentative- persuasive texts in that the writers present their arguments as they convey the significance of their research in trying to establish a niche and create a space (Swales, 1990), proclaim the veracity of their propositions, and the validity of their findings. It is therefore, important to present propositions and stage arguments explicitly to persuade readers to accept one’s arguments. And in order to explicitly and effectively convey writers’ academic intentions and persuade imagined readers, metadiscourse devices are employed to achieve academic writers predetermined communicative objectives.

Metadiscourse resources help texts present effective arguments and achieve persuasiveness by increasing the credibility of the writers through the employment of modality and hedges, boosters, self-mentions, and other interpersonal metadiscourse as they evaluate, make judgments, and express degree of commitment to their propositions in the text. It is this theory that effective argumentation and persuasion can be achieved by the judicious employment of metadiscourse, and that successful argumentative discourse

takes into consideration audience and text awareness that this study is anchored on.

1.3 Conceptual Framework

The conceptual framework of this study as shown in Figure 1 reflects the interplay of the various variables and concepts involved in the production of an academic argumentative writing. The three major concepts include the **writer**, the **reader**, and the **text** containing metadiscourse. The writer is a postgraduate Filipino second language writer who belongs to a particular disciplinary field, namely; Applied Linguistics, Business Administration, Biology and Engineering. To the left of Figure 1 are the texts in Engineering and Biology, considered as hard disciplines while to the right are the soft disciplines, namely; Applied Linguistics and Business Administration. The text is a dissertation from any of the disciplines mentioned above which is addressed to a particular reader or discourse community. The reader or the audience to whom the text is written may include other researchers, advanced students, professors and panel examiners or any member of the discourse community.

The arrows from the **Writer** below the Figure point to the **Text** to suggest that the writer creates the text to communicate new knowledge as an output of research. On the other hand, the arrows from above coming from the **Reader** point to the **Text** indicating that the reader is the consumer of the text from where new information is acquired. In the process of text creation, the writer employs

Metadiscourse resources in presenting arguments in order to communicate effectively new knowledge to the intended reader; thus, the arrows pointing inward the circle. It is assumed that the reader is guided in his reading and understanding of the text with the writer's use of rhetorical devices called Metadiscourse.

Metadiscourse resources in the text, which are represented by the outermost circle, may assist readers through the explicit and coherent organization of information in the text, and the engagement and interaction of the writer with the intended readers. The former is taken care of by the Interactive Metadiscourse which includes *Transitions*, *Evidentials*, *Endophoric markers*, *Code glosses* and *Frame markers* while the latter by the Interactional Metadiscourse that consists of *Hedges*, *Boosters*, *Attitude markers*, *Engagement markers* and *Self mentions*. It is in these devices that the writer involves the readers in the interaction. The use of all these linguistic resources then helps create a text that is organized, credible, and persuasive.

The next layer of circle shows Hyland's (2005) model of Metadiscourse in Academic Writing which can be a tool to examine the texts of Filipino writers in terms of Metadiscourse use. Also included in the circle are Salager-Meyer's Taxonomy of metadiscourse for identifying hedges, Halliday and Hasan's concept of cohesion for determining semantic relations between clauses and Samraj's classification of citations for classifying *Evidentials*. The preponderance

of certain metadiscourse devices would likely reveal the writers' linguistic preferences, the patterns of use, as well as the similarities and differences in their use of metadiscourse devices in various disciplinary fields such as; Applied Linguistics, Business Administration, Biology and Engineering. Further analysis could reveal the factors influencing the differences and similarities of metadiscourse use across disciplines and the writer's awareness of his readers through linguistic devices. Finally, looking into these rhetorical devices, a model of Metadiscourse use by Filipino writers can be crafted.

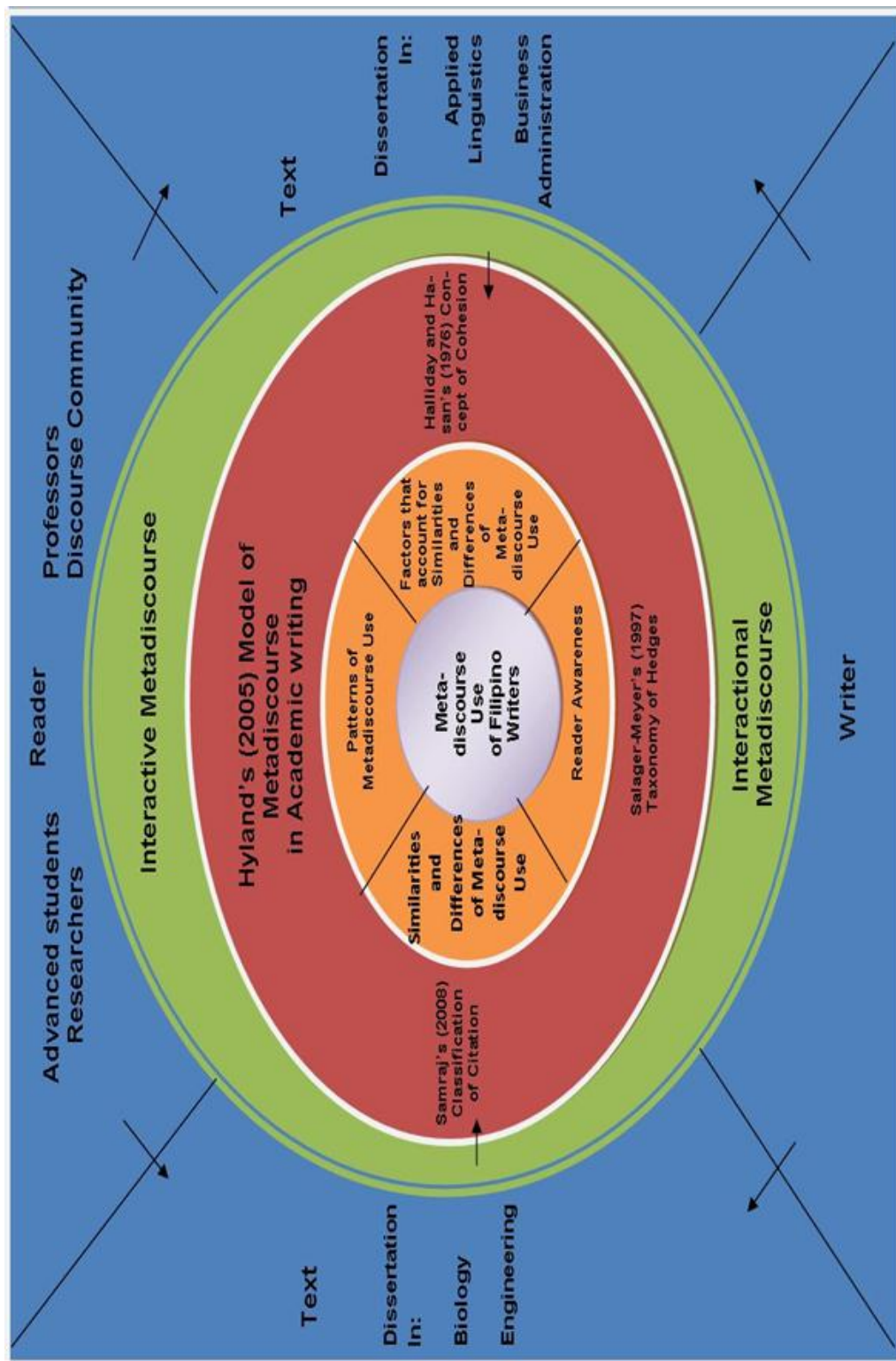


Figure 1. Conceptual Framework

1.4 Statement of the Problem

This study attempted to examine, compare and contrast the use of metadiscourse devices in the postgraduate dissertation writing of Filipino second language (ESL) writers in four disciplines, namely, Applied Linguistics, Biology, Engineering and Business Administration. Applied Linguistics or Language Teaching and Business Administration represent the soft science whereas Biology and Engineering represent the hard science.

This study specifically aimed to answer the following questions:

1. What are the patterns of metadiscourse use in the dissertations of Filipino academic writers in four disciplines: Applied Linguistics, Business Administration, Biology and Engineering?
2. Are there similarities and differences in the use of Metadiscourse as rhetorical device in the dissertation writing of the Filipino writers in selected disciplinary fields in terms of:
 - a. Amount of metadiscourse?
 - b. Types of metadiscourse?
3. What factors may account for the similarities and differences in the use of metadiscourse in the dissertation writing of Filipino writers across four disciplines: Applied Linguistics, Business Administration, Biology and Engineering?

4. What does the use of metadiscourse markers by the Filipino second language writers manifest about themselves as academic writers in terms of reader awareness?

1.5. Significance of the Study

The results of the study would be useful to the undergraduate and graduate students in any discipline, especially among second language writers because raising their consciousness in the appropriate use of metadiscourse markers can lead to more effective and efficient writing. Knowledge and awareness of the linguistic rhetorical device provide student academic writers with an armory of various rhetorical strategies to effectively convey communicative intentions and convincingly persuade intended readers in the pronouncement of their claims and in the soundness of their arguments.

With the employment of metadiscourse, academic writers assist and guide their readers in understanding, interpreting and evaluating their text. Awareness of metadiscourse also increases students' sensitivity to their readers' cognitive ability, processing needs, and knowledge of the world and, therefore make their writing meet those needs, thus changing perspective from reader-responsible to writer-responsible individuals.

The study would also benefit graduate and postgraduate students, academic researchers, thesis and dissertation writers who are constantly required to submit research and academic papers because they will be

more informed of the characteristics of their writing and consequently embrace the concept of metadiscourse in order to improve their future writing.

Results of the study would also be beneficial to language teachers especially ESP and EAP teachers and writing instructors. Awareness of the positive effect of metadiscourse in essay and composition writing encourages them to integrate the teaching of metadiscourse among their students in order to improve their students' writing performance and comprehension skills through recognition of meaning relationship. Furthermore, understanding of the role of metadiscourse in writing enlightens teachers' methodology and strategies and encourages them to make necessary revisions in their course syllabi to accommodate the concept of metadiscourse.

The study is also of interest to the curriculum planners and instructional material designers as it provides them insights on how Filipino second language writers of English employ metadiscourse and how this affect their writing output so as to adopt the necessary changes in the educational curriculum in order to help teachers become effective writing teachers and students become better writers themselves.

More importantly, people from the field of Linguistics, Applied Linguistics, Business Administration, Biology and Engineering would be informed of the nature and characteristics of Filipino writers' academic writing in English in the soft and hard sciences.

Furthermore, this study would provide insights into the underlying factors that would account for the similarities and differences in the writing conventions particularly in the use of metadiscourse among academic writers from various disciplines. Increased level of awareness on similarities and digressions of writing practices deepens understanding on some issues that Filipino writers are confronted with resulting in tolerance and acceptance of the writings of others.

1.6. Assumptions of the Study:

This study is based on the following assumptions:

- 1.) Metadiscourse resources are universal in all academic writing; however, they vary in terms of quantity and type of metadiscourse across cultures and across disciplines.
- 2.) Detailed examination of metadiscourse markers will reveal the ways academic writers of various disciplinary cultures guide their readers, engage them in their writing, establish authorial credibility and disclose their identity.
- 3.) The use of metadiscourse by Filipino dissertation writers can be constrained by individual writer's language strategies and disciplinary culture.

- 4.) Closer investigation of metadiscourse devices in the dissertation writings of the Filipino writers in selected disciplines will reveal their linguistic rhetorical preferences in academic argumentative writing.

1.7. Scope and Delimitation of the Study

This study is confined to the comparative-contrastive descriptive analysis of the metadiscourse features employed in the forty dissertations of Filipino writers of English from the school year 2005-2012. The Filipino writers included dissertation writers from the four selected disciplines, namely: Applied Linguistics, Business Administration, Biology, and Engineering in four leading tertiary institutions in the country; two private institutions and two public universities.

Using Hyland's (2005) taxonomy of metadiscourse for Academic writing, the analysis focused on the **Interactive markers**, namely: *Transitions*, *Frame markers*, *Endophoric markers*, *Evidentials* and *Code glosses*; and the **Interactional devices** which include *Hedges*, *Boosters*, *Attitude markers*, *Engagement markers* and *Self-mentions*. These markers are believed to disclose the nature and characteristics of the academic writing.

The analysis of the text only covered the Introduction and Results and Discussion sections or Presentation and Analysis of Data of the dissertations of the four groups of writers as these are the sections assumed to display numerical preponderance of metadiscourse resources. Only verbal metadiscourse

markers found in the body of the text are included in the textual examination; therefore, the ones found in the headings, captions, figures, and tables, etc. are excluded. Although punctuation marks such as colons, etc. underlining, arrows and other mechanics express meanings in the text, these are excluded as part of the investigation because as Dahl (2004) justifies, they may easily skew the result for this category as one or few academic text may yield a very high total number of such items. Also due to the limited number of dissertations by Filipino writers and due to the difficulty of securing copies of these academic texts in tertiary institutions, only ten corpora for each disciplinary field were used for textual analysis.

The selection of language coders was done among language specialists who have teaching experience of not less than nine years and are therefore assumed to have enough experience and expertise in dealing with language features. Also, the coding and validation of the metadiscourse devices did not involve practitioners in the field but was confined to the language specialists because these are the persons believed to be more academically prepared and knowledgeable in the language features of the texts which facilitated coding and validation of metadiscourse devices.

Examination of these microlinguistic rhetorical features did not aim to disclose the total amount of metadiscourse resources in each corpus, but simply compared the patterns of occurrences of metadiscourse in corpora of unequal sizes. Consequently, this sought to uncover whether use of metadiscourse by

the Filipino second language writers reveal patterns of use, whether there are universalities and digressions and ultimately explore the possible reasons that would account for the occurrence of such. At the end of the analysis, this study attempted to come up with model of metadiscourse disclosed in the dissertation writing of Filipino writers in the field of Applied Linguistics, Business Administration, Biology, and Engineering.

1.8. Definition of Terms

This section provides conceptual as well as operational definitions of terms and concepts mentioned in this study for purposes of better understanding.

Academic Writing – refers to structured discourse written by scholars intended for informed audience or discourse community and dealt with topics that are of interest to the academic writers. (Villegas, 2009). Specifically, it refers to the dissertations of the four groups of writers.

Argumentative Text - refers to a form of writing whose primary rhetorical function is to convince readers. In this study, it refers to the dissertation writing of the Filipino writers, specifically to the Introduction and Results and Discussion sections or the Presentation and Analysis of Data section in the four selected disciplines, namely; Applied Linguistics, Business Administration, Biology, and Engineering.

Attitude Markers – refer to metadiscourse devices that express writer's attitude toward propositions. (Hyland and Tse, 2004).

Boosters – refer to metadiscourse resources that imply writer's certainty and emphasize force of propositions. (Hyland, 2005).

Code Glosses – refer to metadiscourse markers that explain or expand propositional information to assist reader's interpretation and to ensure the writer's intention is understood (Hyland, 1999).

Context – refers to the environment or circumstances in which language is used (Brown and Yule, 1983). In this study, it refers to the discourse in which language is used which includes the writer, the reader and the text.

Disciplinary Culture – refers to the totally learned, socially acquired lifestyle of a group of people, including their patterned, repetitive ways of thinking, feeling, and acting that are transmitted from one generation to the next. (Harris and Johnson, 2000; Vander Zanden, 1988).

Endophoric markers – are metadiscourse markers that refer to information in other parts of the text (Hyland and Tse, 2004) and therefore make additional material salient and available to the reader in recovering the writer's intentions. (Hyland and Tse, 2004).

Engagement Markers – are linguistic features that explicitly address readers, either to focus their attention or include them as discourse participants. (Hyland and Tse, 2004).

Evidentials – are linguistic features that refer to the source of textual information from other texts. (Hyland, 1999).

Filipino writers _ refer to the dissertation writers in the field of Applied Linguistics, Business Administration, Biology and Engineering.

Focus markers - are metadiscoursal features that direct readers to refer to an immediate reference or focus on a word or a topic for emphasis or for recovery of meanings.

Frame makers – refer to interactive metadiscourse resources that signal text boundaries and function to sequence, label text stages, announce discourse goals and indicate topic shifts. (Hyland and Tse, 2004, Hyland 2005).

Genre – is a type of written discourse made distinctive by its communicative purpose identified and mutually understood by members of the discourse community for which it is intended. (Swales, 1990, Bhatia, 1993).

Hedges – are language devices that withhold writer's full commitment to proposition. (Hyland and Tse, 2004).

Interactive Metadiscourse – refers to linguistic features used by writers to explicitly organize propositional information in ways that will be coherent for a particular audience for a given purpose. (Hyland, 1999, 2005; Hyland and Tse 2004).

Interactional Metadiscourse – refers to linguistic devices that are concerned with the ways writers conduct interaction by intruding into the text and commenting on their message (Hyland, 2005).

Metadiscourse – are linguistic expressions which refer to the evolving text, to the writer, and to the imagined readers of that text. These are linguistic devices writers use to explicitly organize their texts, engage their readers and signal their attitudes to their material and their audience. (Hyland, 2005). This is also known as metatext, metalanguage, meta-element and non-propositional materials.

Patterns of Metadiscourse use - in this study, it refers to the recurrent use of Metadiscourse features in the dissertation writing as shown in the distribution.

Reader awareness - in this study, it refers to the manifestation of reader's presence in the text through the writer's use of linguistic devices.

Reader markers - are discourse markers that explicitly refer to the reader of the text such as the second person pronouns *you* and *your/s* or the word *reader*.

Rhetoric - is the choice of linguistic and structured aspects of a discourse chosen to produce an effect on an audience (Purves, 1988 as cited by Noor, 2001: 255). It is the art of finding available

ways of establishing persuasive proof (Hyland ,2005: 63-64). In this study, it is understood as persuasive discourse.

Self-Mentions – refer to metadiscourse markers that reflect the author's presence in terms of the incidence of first person pronouns and possessives (Hyland, 1999, 2005).

Transitions – are metadiscourse resources that express semantic relations between main clauses. These are mainly conjunctions and adverbial phrases that signal additive, causative and contrastive relations (Hyland and Tse, 2004).

Chapter II

REVIEW OF RELATED LITERATURE

This chapter presents a critical review of related concepts and theories on metadiscourse, rhetoric, genre, and argumentative writing. It also includes a discussion of relevant studies conducted locally and abroad. This chapter will be divided into two parts: Conceptual Literature which includes concepts and theories propounded by scholars and experts and Research Literature consisting of empirical studies conducted.

2.1. Conceptual Literature

2.1.1 Metadiscourse

2.1.1.1. Concept of Metadiscourse

To write effectively involves the use of metadiscourse in order to facilitate the easy reading and understanding of a text. Metadiscourse is a rhetorical device to guide readers, more than inform them of the propositional content or information by providing appropriate signposts in the organization of the text. With metadiscourse, readers are also assisted in interpreting and evaluating content and recovering intentions of the writers (Hyland 2005, Hyland and Tse, 2004). It is a set of linguistic resources that negotiate and interact with the readers and convey their personality and identity (Adel, 2006). It is also the writer's explicit commentary about his/her on-going discourse (Vande Kopple,

1985). Vande Kopple (1985) defines it as a linguistic material that does not add propositional content, but rather signals the presence of the writers.

The concept of metadiscourse is difficult to categorize and delimit owing to its characteristic of being **fuzzy**. Being fuzzy characterizes metadiscourse as having implicit boundaries (Adel, 2006) thus, resulting in the difficulty of identifying and classifying or categorizing it. For one to have a clearer understanding of metadiscourse as a fuzzy, context-dependent and multi-functional rhetorical device, the context needs to be considered. (Hyland, 2005; Crismore and Farnsworth, 1989; Adel, 2006). Metadiscourse is a linguistic resource that may be realized by various linguistic forms ranging from affixes (Adel, 2006; Mauranten, 1993) to words, clauses and even series of sentences, and it may fulfill one or more pragmatic functions depending on its relationships with other words in the context. It is an open-category to which new items can be added to fit the writer's needs (Hyland, 2004). This concept is also referred to by various language scholars as metatext (Adel, 2006; Bunton, 1989; Mauranten, 1993), metatalk (Schiffrin, 1980) meta-elements (Dahl, 2004), metalanguage and non-propositional material (Lautamatti, 1987).

The concept of metadiscourse is based on a view that writing is a social and communicative engagement (Hyland, 2005). The employment of metadiscourse in a writer's discourse reflects his/her awareness of the assumed readers during the unfolding of the text. It demonstrates how writers situate themselves to create a coherent and persuasive discourse. The awareness of

the audience reflects the writer's evaluation and assessment of his/her readers to meet their needs, for using rhetorical means to address readers' possible reactions increases persuasion and acceptance of the text. Hyland (2005 p.15) adds that:

An ability to relate to an audience in ways that they will expect and understand means creating text which see things as they do, so that the text is easier to comprehend, more interesting, and more likely to create the desired response.

Therefore, the ability of the writer to use metadiscourse effectively to create a coherent text, to negotiate and engage with the readers, to express audience solidarity and to offer a credible representation of themselves to achieve rhetorical objective is seen as a defining characteristic of a successful writing.

2.1.1.2. Categories of Metadiscourse

Hyland (2005) and Hyland and Tse (2004) classify metadiscourse resources into two categories, namely; the interactive metadiscourse and interactional metadiscourse. The interactive category of metadiscourse is concerned with the explicit organization of the propositions in the text in order to assist readers in the recovery of meanings and intentions of the writer. They are an offshoot of the writer's assessment of his readers' assumed comprehension capacities, understanding of related texts, and need for interpretive guidance. This category consists of the subcategories of *Transition markers*, *Frame*

makers, Endophoric markers, Evidentials, and Code glosses. On the other hand, the interactional metadiscourse category consists of linguistic features that are concerned with the writers' awareness of the readers. It involves the writers' interaction and negotiation with their audience manifested in their intrusion into the discourse by giving comments and evaluation of their message to express solidarity. Interactional metadiscourse is essentially evaluative and engaging in an effort to align themselves with their assumed audience.

Hyland (2005) and Hyland and Tse's (2004) Taxonomy of metadiscourse provides definitions of the metadiscourse resources. The following are the five-sub-categories of Interactive metadiscourse.

Transitions provide signals to indicate connection and relationship between parts of the text or arguments. These are mainly expressed through conjunction, and adverbial phrases that signal additive, contrastive and causative relations. (e.g. on the other hand, nevertheless, but, etc.)

Frame markers indicate text boundaries in a stretch of unfolding discourse. These metadiscourse resources function to sequence parts of the text or order arguments, indicate topic shifts, announce discourse goals, and label text stages. (e.g. first, next, to conclude, the paper proposes, etc.)

Endophoric markers are metadiscourse features that refer to other parts of the text. These facilitate reader's comprehension by referring to

earlier parts of the text or to something yet to come. (see Figure 2, refer to the next section, as noted above, etc.)

Evidentials function to indicate source of textual information which originate from sources outside the current text. These metadiscourse markers provide support for arguments and contribute to text persuasiveness. (e.g. according to, X notes that,(author, date), etc.)

Code glosses aid in the understanding of the text by rephrasing, explaining or elaborating what has been previously said to ensure the reader is able to recover the writers' intended meaning. These features reflect the writers' assessment of their anticipated audience.

The interactional metadiscourse markers are sub-categorized into five, namely: hedges, boosters, attitude markers, engagement markers, and self-mentions.

Hedges indicate the writer's recognition of diverse and opposing viewpoints, mark reluctance to propositional information, and withhold complete commitment to a proposition. (e.g. perhaps, possible, seem, apparently, etc.)

Boosters are metadiscourse markers that express certainty and commitment to the proposition in the text. (definitely, certainly, undoubtedly, etc.)

Attitude markers function to express appraisal of the propositional information presented in the text conveying surprise, obligation,

argument, frustration, and so on. (e.g. unfortunately, surprisingly, it is interesting to note, etc.)

Self mentions indicate the degree of authors' presence in the text manifested by the incidence of first person pronouns and possessive adjectives. (e.g. I, my, we, us, the author, the writer, etc.)

Engagement markers explicitly address readers as active discourse participants through the employment of second person pronouns, imperatives, questions, and asides. (e.g. we, Note that, Remember, etc.)

2.1.1.3. Models of Metadiscourse

In an attempt to clarify the concept of metadiscourse because of its very nature, several scholars have proposed their own classifications of metadiscourse. One of the earliest is Vande Kopple's (1985) taxonomy which includes seven categories, classified into two main functions: textual and interpersonal functions. His textual functions include text connectives, code glosses, action markers, and narrators; while his interpersonal functions include modality markers, attitude markers and commentaries. Later, Crismore and Farnsworth (1990), and Crismore, Markkanen and Steffensen (1993) expanded Vande Kopple's model, by also including interactive elements. Their taxonomy distinguishes between tactical metadiscourse and lexical metadiscourse. The category of tactical metadiscourse includes preview, tactical enumeration, topic

shift, review, conclusion and forecast. The lexical metadiscourse category, on the other hand, includes limiters, hedges, emphatics, evaluative, formulations, appeals, and directive asides. Finally, Hyland (1998, 2005) Hyland and Tse (2004) adopted Crismore et.al's (1993) distinctions. His model consists of main categories: textual (interactive) metadiscourse and interpersonal (interactional metadiscourse). The former includes logical connectives, framemarkers, endophoric markers, evidentials, and code glosses and the latter hedges, emphatics, and attitude markers.

These above-mentioned models are the broad or integrative models. Other language scholars, Bunton (1999), Dahl (2004), and Adel (2006) developed a narrower model which focuses only on textual metadiscourse which they termed metatext. Bunton (1999) sees the term metatext appropriate for a narrative scope of metadiscourse. Dahl also proposed a taxonomy consisting two categories of metatext elements: the locational metatext and rhetorical metatext. Locational metatext consists of linguistic resources referring to the text itself or parts of the text. This corresponds to Hyland's (1998) endophoric markers and serves to assist the reader to navigate within the text. Rhetorical metatext, however, corresponds to Hyland's frame markers and functions to help the reader process the text.

Moreno's (1997) model also focused only on the textual function of metatext, the cause-effect intersentential metatext (CEISRs) in orienting the readers in the interpretation of the discourse. Mauranen (1993) and Valero-

Garces (1996) also adopted a narrower schema with categories that serve only the purpose of textual organization. Their categories include connectors, reviews, previews, and action markers.

Subsequently, Bunton (1999) developed his own metadiscourse model in his study of Ph.D theses, which draws on Mauranten's (1993) model, borrowing categories of reviews, previews, from Crismore and Farnsworth (1990) action markers, and from Vande Kopple's (1985) illocution markers. He claims that the level of metatextual reference can be determined by their scope (i.e. the amount of text they refer to) and by the distance over which they operate. Levels of distance in his model include immediate, local, section, and chapter. On the other hand, the five levels of scope consist of sentence, paragraph, section, and chapter. Bunton's model consists of six categories: text references (previews, overviews, and reviews), non-linear text reference, inter-text reference, text act markers, text connectors and text gloss.

Most of the described taxonomy of metadiscourse were drawn on Halliday's (1985) tripartite functions of language which includes the ideational, textual, and interpersonal functions. One that deviates from this framework is Adel's (2006) model of metadiscourse which has its framework built on Roman Jakobson's (1998 as cited by Adel, 2006) functional model consisting of metalinguistic (text/code), expressive (writer), and directive (reader). Adel's model takes up only Jakobson's metalinguistic, expressive, and directive functions. Adel recognizes the dominant function of the linguistic elements in

the discourse, but unlike Mauranen, she also recognizes the two other components of the writing process; the text and the reader. Her model gives emphasis to reflexivity as a key feature.

Drawing on Adel's (2006) and Mauranen's (1993) analytical model with some modifications, Toumi (2009) proposed a model for examining reflexive metadiscourse in research articles. One common notion adopted in her model is the notion of reflexivity of the current text, writer and reader, such that in her model, validity and attitude markers do not qualify as reflexive because according to Toumi, they refer to the "internal state of mind of the writer as experiences in the real world" (p. 66). Also narrators do not qualify because they refer to writers of other texts. The absence of distinction of reflexivity of the current text, writer and reader and the failure to set criteria for identifying metadiscourse are some of the limitations of the previous models which led Toumi to develop a new model focusing only on three of Jakobson's linguistic functions: metalinguistic, expressive, and directive. The model consists of two main categories: metatext and writer-reader oriented metadiscourse. Metatext serves the textual organization while writer-reader metadiscourse indicates interaction between writer and reader.

2.1.1.4. Metadiscourse and Rhetoric

The term rhetoric has evolved various meanings from Aristotle's classical rhetoric to the contemporary rhetoric. Originally, it is associated with speaking

eloquently to persuade and influence people. Thousands of years ago, people refer to rhetoric as skillful but often deceptive eloquence intended to give some people some advantage over the others by appealing to their emotions. (Lindemann, 1982, p. 35). Basically, rhetoric is *the art of persuasion* (Campbell, 1996; Cooper, 1932; Lindemaan, 1982) “ that concerns arguments on matters about which there can be no formal proof ” (Hyland, 2005 p.63). Campbell (1996) claims that people use language “to alter perception, to explain, to change, reinforce and channel beliefs, and to initiate and maintain actions”. (p.19)

Aristotle defines rhetoric as the act of discovering available means of persuasion. Rhetoric involves demonstrating how something can be shown to be true. He argues that there are three kinds of instruments of persuasion which consist of the character or **ethos** of the speaker, the appeal to the emotions or the **pathos** and the appeal to reason or the **logos**. The *ethos* concerns the character and the image of the speaker. Speaker’s credibility is influenced by reputation, expertise, competence, authority and so on. The *ethos* of the speaker can trigger persuasion if the speaker delivers his/her speech so eloquently so as to make him worthy of belief. Secondly, the *pathos* concerns affective appeals. Accordingly, persuasion is reinforced in the audience when they are led into a state of emotion for people are influenced by emotions of pain, joy, hatred, and liking. Thirdly, the *logos* concerns the speech, its organization and types of evidence and argument (Hyland, 2005).

According to Lindemaan (1982) Rhetoric implies choices. He added that

when we practice rhetoric we design the message first by making decisions about our subject, audience, point of views, and purpose. Then we select the best ideas and select the best order in which to present the best ideas and choose the best language resources to express them. In other words, we develop strategies for creating effect in our audience. (p.37)

These three means of persuasion, the *ethos*, *pathos* and *logos* relate to metadiscourse as a persuasive device to help writers or authors achieve their rhetorical objective. Hyland (2005) argues that metadiscourse promotes rational appeals when it explicitly links ideas and arguments, reinforces credibility appeals through the ethos of the writers, and addresses affective appeals when it demonstrates deference and respect for the readers as it evaluates his/her propositions and makes comments on the propositional information in the text. Metadiscourse helps writers assess their readers, anticipate their possible reactions, signal relationships to guide them in understanding the text, and engage and negotiate with the audience to create solidarity with them.

2.1.1.5. Metadiscourse and Academic Writing

Hyland (2005) maintains that academic discourse is a form of argumentative-persuasive writing as it is anchored on the presentation of “absolute truth, empirical evidence and flawless logic” (p. 66) in the achievement of its communicative purpose. In other words, in order to secure the rhetorical objective of an academic discourse, consideration of and orientation to the readers is a necessary requirement.

The academic writer has to present an objective and accurate presentation of what the world is really like and how the world is perceived by the readers. However, Hyland argues that to present absolute truth in a writer's text is not accurately presenting what the world is really like. It is actually to engage in a particular form of persuasive endeavor involving the interaction between the writer and the reader. Academic writers are not only concerned with the representation of reality and with the presentation of absolute truth in its proposition but are concerned with how linguistic resources are used to establish social relations and negotiate arguments with the audience. Furthermore, academic writers achieve persuasive intention by displaying interaction to establish solidarity with the audience, by promoting credibility of themselves, evaluating their proposition and expressing respect to accommodate alternative views. Persuasion in academic text through successful argumentation is seen as partly achieved by the employment of metadiscourse resources. The act of convincing in academic discourse is a decision-making act in the choice of linguistic preferences.

2.1.1.6. Metadiscourse and Genre

Swales (1990) defines genre as “a communicative event characterized by its communicative purpose recognized and mutually understood by the members of a discourse community” (see also Bhatia, 1993). Accordingly, the concept of genre recognizes the essentiality not of the substance or content but of its

communicative intention. Hence, a news editorial is a distinct genre from news article in that an editorial has the purpose of presenting arguments while a news article has the objective of informing the readers. It is the communicative purpose, then, that primarily characterizes the genre and constrains the choice of rhetorical features (Connor, 1996; Swales, 1990). One such linguistic rhetorical feature writers of different genres use to reflect their communicative intentions is metadiscourse. Interestingly, different genres display various preferences for metadiscourse use.

The genre of corporate rhetoric, advertising slogans, news editorials including *The Origin of Species* have been shown by various scholars (Hyland, 1998; Peterlin, 2005; Dayag, 2009; Crismore and Farnsworth, 1989) to have employed interactional metadiscourse to increase persuasiveness of the text and acceptance from the readers. On the other hand, the genre of textbook is shown to have preferences for interactive metadiscourse as dictated by the writer's purpose; that is to assist readers' comprehension of the propositional information in the text.

Academic writing as a distinct genre reflects the use of metadiscourse to present arguments as it demonstrates truth and evidence. Hyland (2005) points out the incidence of metadiscourse as a key feature in genre analysis. The deployment of metadiscourse in academic writing assists writers in presenting successful arguments by organizing the text in a way easily understood by the readers and by explicitly signaling the relationship of the propositions primarily

through the use of transitions and other interactive resources. Metadiscourse markers in academic writing facilitate the engagement and negotiation between writers and readers, thus increasing the text persuasiveness and acceptability.

2.2. Research Literature

2.2.1. Metadiscourse

Most of the studies in metadiscourse used the model influenced by Hallidayan functional model. Such studies were done on research articles (Mauranen, 1993, Valero-Garces, 1996; Moreno, 1997; Hyland 1998; 2001) on different language backgrounds, English- German (Clyne, 1987); English-Finnish (Mauranen 1993); English-Spanish (Valero-Garces, 1996; Moreno, 1997); English-Bulgarian (Vassileva, 2001); English-French and Norwegian (Dahl, 2004); English-Slovene (Peterlin, 2005); English and Persian (Abdi, 2009; Zarei and Mansoori, 2007) and on various disciplines (Abdi, 2009; Dahl, 2004; Hyland, 1998, 2001). Other studies focused on the effects and relationship of metadiscourse markers on the quality of student writing (Cheng and Steffensen, 1996; Caroché, 2003; and Simin and Tavangar, 2009). Still some studies focused on longer academic text such as theses and dissertations (Bunton, 1999; Hyland, 2004; Hyland and Tse. 2004; Swales, 1990), introductory course books (Hyland, 1998), Origin of the Species (Crismore and Farnsworth, 1989), corporate rhetoric (Hyland 1998), newspaper editorials (Dayag, 2009) and advertising slogans and headlines (Fuertes-Olivera et.al, 2001).

In recent years, there has also been a growing interest in the contrastive study of the use of metadiscourse in academic writing of students and writers of different cultural backgrounds. One of the early studies on metatext was done by Mauranen (1993) on economic journals written by native speakers of English and Finnish writers. Mauranen explored how the academic writers of different cultural backgrounds use metadiscourse in the research articles. Her study looked into the explicitness of their writing, the authorial presence, and the notion of politeness. Results of the study revealed that Finnish second language speakers use much less metatext than the Anglo-American writers and favor a more impersonal style of writing, thus reflecting an implicit textual rhetoric that demands a considerable interpretative effort from the reader in reading the text. In contrast, Anglo-American writers were found to have used more metatext in their writing, reflecting a more reader-oriented attitude, a more positive notion of politeness and a more explicit textual rhetoric.

Their writings indicate authorial presence as human subjects are given more prominence. The preference for rhetorical strategies between the two groups also reflects different notions of politeness and assumptions of shared knowledge. Mauranen explained that the Finnish implicit rhetoric could account for Finnish treatment of readers as intelligent beings to whom less needs to be explained. She further explained that Finnish implicit writing can be traced to homogenous context where writers assume a great deal of shared knowledge

between him/her and the readers, thus deliberately leaving the readers to orient themselves in the discourse.

A similar study was conducted by Valero-Garces (1996) exploring the cultural differences in the use of metatext in Economic journals by English native speakers and Spanish second language speakers. The study aimed to describe the differences in discourse patterns between the writings of the two cultures. Similarly, Valero-Garces also found that English native speakers' text used more metatext than Spanish text, used higher percentage of connectors and used reviews more frequently than previews. The English L₁ texts showed prominence to subjects, as suggested by their thematic position, and tended to be more personalized compared to the written texts by the Spanish writers. Valero-Garces claimed that Spanish writers focus on providing readers with knowledge and theory rather than orienting the readers, thus making the readers struggle more to understand the discourse. She concluded that the different use of rhetorical strategies is due mostly to cultural difference rather than linguistic variation.

Similar results are obtained in the study of Peterlin (2005) on the deployment of metadiscourse in English and in research articles on two disciplinary fields, namely: Archeology and Mathematics. The examination focused on previews and reviews, two text-organizing metatext. Textual analysis revealed that previews are predominantly employed than reviews in English research articles and in Mathematical research articles in both languages. This

means that Slovene writers tend to use fewer metatext in their writing compared to English writers. With these results obtained, Peterlin claimed that unlike English writers, Slovene writers place less importance on writer-responsibility making readers exert more effort in understanding the text, since metatext are text-organizing rhetorical device. These findings corroborate with Hinds' notion of reader-writer responsibility where the English writer is primarily responsible for effective communication. Similarly, Slovene writers are like the Japanese writers who tend to shift to the readers the burden of understanding what the writers had intended to say.

Another study which confirmed the influence of national culture on the conventions of writing and rhetorical preferences of second language speakers was reported by Abdi (2009) in her article entitled "Projecting Cultural Identity through Metadiscourse by Persian Writers." Abdi's study on the use of Metadiscourse by Persian writers sought to find out whether the Persian writers follow the norms of academic discourse community or opt to preserve their native norms which represent their cultural identity.

Analysis of the employment of metadiscourse (from both English and Persian writers group) suggests that there is a significant difference in the use of interactional metadiscourse. However, both writers employed interactive metadiscourse more frequently than interactional metadiscourse indicating the writers' awareness that explicit organizing of information and signposting of arguments are important in the process of persuasion. There is also the striking

difference in the employment of interpersonal metadiscourse with the English writers more frequent use of this type than the Persian writers. Abdi explained that, the fact that Persian writers were aware that their work was confined to a limited group (Persian speakers) of disciplinary community, they did not attempt to fine tune the rhetorical structure of their text and opted to preserve their national identity.

Persian writers preferred to be impersonal and tended not to inject their affective evaluation in their text, in contrast to the English writers frequent use of attitude markers to build solidarity with the readers. She further hypothesized that perhaps to develop such solidarity with the reader is not necessary to the Persian culture. The use of hedges and boosters marks a more deeply cultural act of evidence evaluation. Thus, she concluded that the employment of interactional metadiscourse is influenced by national culture rather than generic and discursive norms of academic community.

The study of Zarei and Mansoori (2007, 2011) and Farrokhi and Ashrafi (2009) also examined, compared and contrasted the occurrence of metadiscourse in English and Persian writings across disciplines. Zarei and Mansoori examined the Abstract, Introduction, Methodology, Discussion and Conclusion sections of the research articles in Applied Linguistics and Computer Engineering. Using the taxonomy of metadiscourse proposed by Hyland and Tse (2004), the investigation showed that both cultures employed more interactive metadiscourse resources than interactional metadiscourse markers which

Indicates that both cultures put premium on textuality over reader solidarity. However, Persian writers tended to use more interactive and less interactional metadiscourse which is the opposite of the English writers. Native writers were more aware of reader involvement in their text while Persian writers were more aware of providing guidance for text comprehension.

Farrokhi and Ashrafi's (2009) study focused only on textual metadiscourse in these disciplines; Applied Linguistics, Mechanical Engineering and Medicine. Among these three disciplinary fields, textual metadiscourse occurred most frequently in medicine among non- native speakers on Persian writers and this was found mostly in the Introduction of the research article. However, the opposite result was obtained in Applied Linguistics among native English writers. It was found that there was a significant difference in the use of textual metadiscourse between native and non-native speakers. Textual metadiscourse is revealed to be central to the organization of the text to achieve coherence. The most common of this are transitions, code glosses, and evidentials, while topicalizers are the least commonly used both by native and non-native writers.

In a similar study, Dahl (2004) found that metadiscourse pattern is influenced both by national language and disciplinary culture in his contrastive study of textual metadiscourse in research articles in three languages; English, French, and Norwegian and in the three disciplines: economics, linguistics and medicine. The study showed that French used less metatext than did both

English and Norwegian and economics displayed higher frequency than linguistics with medicine using far less metatext than the two other disciplines.

According to Dahl the use of far less metatext in medicine is accounted for by the formal organization of content and a highly structured IMRD format where no extra processing effort is needed by the reader to orient himself/herself in the text. In contrast, economics and linguistics have a more heterogeneous organization and have no standardized text format to rely on, thus influence how information was presented, how it could be tracked into the text (through locational metatext), and how discourse set was signaled (through rhetorical metatext).

Employing much less metatext than did the English and Norwegians, French is a representative of a reader-responsible culture while English and Norwegian are both representatives of the writer-responsible culture. He explained that English emphasis on writing effectively and communication with the reader in their educational system, and Norwegian's increased attention to academic writing at the university level resulted in writer-responsible text. He concluded that in medicine metatext is a marker of academic discipline; whereas in linguistics and economics, language and national writing exert more influence on metatext.

These findings of Dahl (2004) on the influence of language variation in the use of metatext in economics text run contradictory to Moreno's (1997) findings. Focusing on the employment of causal metatext by English and Spanish writers

in the field of business and economics, Moreno aimed to find out variation in the rhetorical preferences of both culture. In contrast to Mauranen (1993) in the study of English-and Finnish academic text in economics and to Valeno-Garces (1996) in her analysis of English-Spanish economics texts, the study of Moreno indicates that both English and Spanish academic writers similarly used explicit expressions of CEISRs (cause-effect intersentential relations) in developing their arguments. She further concluded that it is the writing conventions of the genre and not the peculiarities of the Spanish and English writing cultures that influenced rhetorical preferences and strategies of the academic writers.

The persuasive effect of metadiscourse as reinforced by the concept of ethos was observed in the analysis of metadiscursive practices of Darwin in the two chapters of the *Origin of the Species*. Crismore and Farnsworth (1989) argued that the metadiscourse employed by Darwin created the ethos which helped project the author's integrity and credibility. Interestingly, Darwin's use of hedges, emphatics and commentary helps create an image of a modest and cautious scientist, and a tactful and trustworthy expert. According to Crismore and Farnsworth, Darwin's hedges created an image of scientist carefully presenting his facts and asking readers to consider evidence. Accordingly, his tentative elements gained credibility by means of his doubt.

The persuasive effect of interpersonal metadiscourse elements was also affirmed in the study of Hyland (1998) on 137 CEO's letters compared with

director's reports which were taken from the same annual reports of international and Asian companies. Since the CEO's letter is a type of promotional genre designed to convey a corporate image, the creation of the writers' ethos to project a positive perception of themselves and the company they represent is important.

The finding shows that the use of Metadiscourse accomplished the persuasive objectives of the CEO letter by contributing to the rational, credible and affective appeals of the text. The rational appeal of the text was created through the CEO letters' textual metadiscourse particularly the code glosses and logical connectives to guide readers in the organization of the text. The credibility appeal was achieved through the ethos-creating metadiscourse mainly in the form of hedges, emphatics and first-person pronouns. The use of these microlinguistic features promoted the image of a confident, trustworthy, decisive and cautious steward of the company. On the other hand, the affective appeal was achieved through the use of relational markers, attitude markers, hedges, and first person pronouns. These metadiscourse markers contributed to the establishment of interactive writer-reader relationships.

The microstructural analysis of the textual metadiscourse demonstrated the distinct nature of the two genres; the CEO letter and directors reports. Though both genre employed more textual metadiscourse than interpersonal metadiscourse, the differences in their frequency demonstrated the distinct nature of the two genres; the CEO letter and the director's reports. The director's

reports are characterized as simple records of company particulars while the CEO letters embody company decisions that require efforts to influence the readers; thus, this explains the need to employ more metadiscourse in the latter. Hyland suggests that rhetorical awareness of metadiscourse helps students of business communication acquire effective rhetorical and verbal repertoire in business discourse and helps consumers understand corporate messages.

The role of metadiscourse devices as rhetorical strategies to achieve persuasion in advertising slogans and headlines was also investigated by Fuertes-Olivera et.al (2001). Advertising, whose identifiable goal is selling a product or service, is also a form of persuasive communication. Being also a covert communication, metadiscourse helps copywriters convey a persuasive message under the informative mask. Examining 125 ads from corporation (October 1994), Fuertes –Olivera et al. showed the powerful persuasive effect of metadiscourse resources. Based on the findings, the employment of interpersonal metadiscourse in the form of hedges, emphatics and person markers alerts the addressee and contributes to the artificial writer-reader relationship, thus, allows them to adopt a kind of balance between informing and persuading which prevents the addressee from distrusting them.

The rhetorical appeal of metadiscourse resources is also explored by Hyland (1999) in 21 introductory course books on applied linguistics, marketing and microbiology and compared this with the similar corpus of research articles. Just like the CEO letters, the textbooks used far more textual than interpersonal

forms with logical connectives the highest in textbooks and code glosses more prevalently used by the writers in all each disciplinary field. The predominance of these devices indicates the writer's desire to assist the reader's comprehension of the propositional information presented in the text. These were found to be less frequent in research articles but recorded a striking difference in the interpersonal metadiscourse such as hedges, emphatics, evidentials and person markers. These are the discourse features promoting persuasion in the text. Results revealed that rhetorical divergence was more pronounced between genres than between disciplines, and that greater disciplinary diversity is exhibited in university textbooks. These differences in the occurrence of these rhetorical features suggest limited rhetorical guidance by writers of textbooks to tertiary students acquiring specialized disciplinary literacy.

Due to increased awareness of the role of metadiscourse in effective academic writing, studies in composition writing of tertiary students became the focus of some studies. The findings of the following studies confirmed the positive effect of the integration of metadiscourse markers on the quality of students writing.

Cheng and Steffensen (1996) conducted a quasi-experimental study on university level students who were divided into two groups: the control group, who were taught composition writing only through a process method and the experimental group, who were taught metadiscourse in addition to a process method. The study sought to find out during the 16-week semester whether it

was possible to teach metadiscourse to students to enhance their own writing and whether the teaching of metadiscourse would result in better quality of writing by the students. Both the control and the experimental group did the same amount of work but had different foci. The control class had their focus on the content and textual structures while the experimental class focused on the rhetorical functions of writing such as explaining to the readers, expressing opinions and interacting with the imagined or intended readers. After a semester of training in the use of metadiscourse, students in the experimental group used metadiscourse effectively, improved the quality of their writing and received better grades. Cheng and Steffensen emphasized that the effective use of metadiscourse markers as a result of explicit instruction produced texts that were easier to read and consequently were given higher marks.

This positive effect of instruction on the use of metadiscourse markers was also seen among Iranian EFL student writers in the study of Simin and Tavangar (2009). Ninety EFL Iranian students divided into three proficiency groups based on their Oxford Placement Test (OPT): upper-intermediate, intermediate and lower intermediate participated in the study. Following Vande Kopple's (1985) model, 360 argumentative essays in a period of one-term were analyzed on the appropriate use of metadiscourse.

Analysis of these rhetorical features showed a much greater use of metadiscourse markers in the upper-intermediate group than in the intermediate group and lower-intermediate group. Similarly, in all the three proficiency groups,

the number of textual metadiscourse markers was far greater than that of the interpersonal metadiscourse. Also based on the findings, the more proficient the students were, the more they used metadiscourse markers and the higher their scores in their essay writings. This positive correlation between language proficiency and quality of essay writing had its pedagogical implication on the socio-pragmatic awareness of students on metadiscourse concepts. Simin and Tavangar concluded that instruction on the appropriate use of metadiscourse and knowledge on rhetorical strategies resulted in improved quality of writing by the students. They suggest that grammatical and syntactic accuracy alone which is the common focus of teaching among EFL teachers is not the sole key to improved writing but this involves a much greater understanding on the appropriate use of metadiscourse as a rhetorical strategy in academic writing.

The above findings were also corroborated by a local study conducted by Caroché (2003) on the effect of metadiscourse approach on the quality of compositions by high school students. This experimental study had the students divided into experimental group which was taught metadiscourse approach and the control class which received the conventional approach. Caroché hypothesized that students taught metadiscourse would tend to produce reader-oriented compositions than those that were not. Secondly, that reader-based compositions would indicate better composition quality in terms of coherence and cohesion, informativity, intentionality and acceptability. After one school year

period, analysis of the students written compositions in English in the experimental group was remarkably better in terms of text quality as shown by the scores and ratings of the raters.

Since author credibility is crucial in the acceptance of the writer's arguments, authorial presence in academic writing is also worth investigating. Hyland (2001) investigated the use of first person pronouns and expressions of self-mention, types of interpersonal metadiscourse in promoting credible authorial identity across eight disciplines in sciences and humanities. The findings of the study revealed that forms of self-citation were dominantly used in Biology, Sociology, and Marketing and less commonly used in the soft fields such as Applied Linguistics, Public Administration and Business. The uses of first person pronouns were salient in the humanities and social sciences than in engineering and hard sciences. Hyland explained that authors of scientific research chose to adopt a less intrusive or personal style and subordinate their own voice to reinforce the objectivity of their interpretations. He pointed out that, on the other hand, the decision to employ first person pronouns in the humanities is associated with the desire to identify oneself with a particular argument to gain credit and acceptance.

Authorial visibility was also explored by Villegas (2009) in 30 journal articles written in Japanese, Singaporean, Korean and Philippine English varieties. The study focused on ways writers express authority, reader solidarity and interactive negotiations with their readers. She devised a set of types of

voice to identify the type of voice dominant in each variety. These include assertive, authoritative, objective, reflective, commutative, and tentative or attached voice. Her findings revealed that journal articles adopt an authoritative voice type in the presentation of their findings and that different English varieties use culturally-available language resources to reveal authorial voice. Based on her findings, she proposed a model for pedagogical purposes.

Some studies focused only on the interactional or interpersonal metadiscourse. The study of Vassileva (2001) reported that English writers are much more cautious and tentative in announcing their claims than Bulgarian writers as revealed in the degree of detachment in their more frequent use of hedges and boosters in the Introduction, Discussion and Conclusion sections. The Bulgarian English recorded the highest degree on commitment, followed by Bulgarian and hence a lower degree of deference towards the discourse community. Vassileva explained that this phenomenon can be accounted for their lack of awareness of the hedges as rhetorical strategies to express commitment and attachment, their desire to preserve their cultural identity, and their educational system where writing is perceived as reproductive and content- focused.

The study of metadiscourse use also expanded its scope on newspaper editorials. A local study by Dayag (2009) pioneered in the Philippines the examination of textual and interpersonal metadiscourse in newspaper editorials in Asian Englishes. Using Vande Kopple's (1985) model on metadiscourse,

Halliday and Hasan (1976) on cohesion, de Baugrande and Dressler (1981) on standards of textuality, and van Dijk (1976) and Tirkkonen Condit (1985) on global structure (see Dayag, 2009), Dayag examined the macro and microstructure of newspaper editorials in Philippine, Singaporean, Indian, Japanese, Korean and Chinese English varieties.

In terms of textual metadiscourse strategies, consisting of connectors and code glosses, significant differences were noted across the six varieties of English. According to Dayag, **'but'** was the most preferred linker among adversative connectors, followed by **'however'** and **'yet'**. As regards to the use of causal connectors, **'because'** is the most frequently used, followed by **since**, **thus**, and **therefore**. Among code glosses, parenthetical definitions recorded the highest frequency. This is found to be the least preferred by Philippine English editorials but the most preferred among Singaporean English newspaper editorials. In terms of interpersonal metadiscourse strategies, which include validity markers, narrators, and attitude markers, significant differences were also found among the six varieties of Asian Englishes. However, there was no significant difference in the use of emphatics. Significant differences were also indicated in the examination of the global structure in the newspaper editorials across Asian Englishes. The Outer Circle Asian Englishes tended to follow a predictable pattern; i.e. claim-counter claim pattern; however, the Expanding Circle Asian Englishes displayed no clear organizational pattern.

The study of Dayag (2009) is relevant to the present study because newspaper editorial is also a form of argumentative discourse. However, the examination of the macrostructure was not dealt with.

Attempts to explore the use of metadiscourse by advanced learners were conducted by Bunton (1999), Hyland and Tse (2004), Hyland (2004), Adel (2006), and Swales (1990). Using 13 PhD dissertations, Bunton (1999) investigated how research students, all non-native speakers of English, used metadiscourse to orient and guide their readers. His study focused on cohesion and coherence of the long text. He justified that it is the very length of the text that makes it all the more important for the writers to guide the readers as to how subject relates to other parts of the text and text as a whole in order to maintain coherence and cohesion.

Using Mauranen's (1993) model Bunton developed a model of his own focusing on those categories most relevant to the cohesion and coherence of long texts. Categories of his model include text reference, non-linear text reference, inter text reference, text act markers, text connectors and text glosses. His study found that there is considerable variation in the use of metatext at the chapter or text level and in between writers. He recommended that research is still needed on how the use of higher level metatext affects the perceived quality of long-texts.

Hyland and Tse (2004) also explored the use of metadiscourse resources in masteral thesis and doctoral dissertations. With their own developed model

whose framework was based on Halliday's functional uses of language, Hyland and Tse found that advanced writers employed more interactive metadiscourse resources than interactional metadiscourse markers. Results also indicated that of the metadiscourse, Hedges and Transitions are predominantly employed followed by the Engagement markers and Evidentials. They argued that PhD dissertations contained far more metadiscourse than master's theses considering their length as they structure more discursively their arguments, and their attempts to engage with their readers as they establish their competence and credibility. They further claimed that their far more frequent use of interactional metadiscourse is indicated by the higher use of engagement markers and self-mentions.

Variations in the use of metadiscourse across discipline were also noted in the employment of more Metadiscourse overall and more interactional features among soft knowledge in humanities and social science disciplines. Hyland and Tse (2004) and Hyland (2004) argued that the presence of interactional resources such as hedges indicates that soft fields which deal with human subjects are more uncertain, thus allows more variable outcomes, and has less reliable criteria for establishing proof. The findings also show a more balanced distribution of the interactive metadiscourse between hard and soft fields but greater proportion in science dissertation and also a greater variation across disciplines. Hard disciplines are found to employ relatively higher amount of endophoric markers reflecting frequent reference to figures,

tables, etc. on which to anchor arguments, while transition markers are remarkably notable in the soft disciplines indicating their more discursive nature.

The study of Hyland revealed that other disciplinary fields especially among second language writers need to be explored in terms of metadiscourse use and that more studies on dissertation writing among other writers across disciplines be conducted.

2.2.2 Contrastive Rhetoric (CR) and Argumentative Writing

A large amount of research in Contrastive Rhetoric (CR) has been done on expository prose and essay compositions of ESL and EFL students of different L1. Among these include the study of Clyne (1987) describing the discourse patterns of German and English writers, Connor and Mc Cagg (1987) on recall sequencing information in expository of English native and Japanese non-native speakers, Eggington (1987) on information recall and academic discourse patterns as affected by English rhetorical style. These also include the studies of Fagan and Cheng (1987) and Mohan and Lo (1985) on rhetorical style and structure of Chinese and English writing, and of Ostler (1987) on comparing discourse structures of English and Arabic prose. Differences in rhetoric were found to be the result of developmental factors (Mohan and Lo, 1985), language proficiency and writing fluency (Connor and McCagg , 1987), influence of first language (Eggington, 1987; Ostler, 1987; Hinds, 1987).

In the 1990s and onwards, a growing interest in CR on academic writing emerged. For example, CR studies on research articles (Mauranen, 1993, Valero-Garces, 1996), dissertation writing (Bunton, 1999; Hyland, 1998, 2000, 2005; Hyland and Tse, 2004; Swales, 1990) academic textbooks (Hyland 1999); academic book reviews (Suarez and Moreno, 2008); research grant proposals (Feng, 2008) and other genres such as corporate rhetoric (Hyland, 1998), news stories (Scollon, 2000); e-mail requests (Chang and Hsu, 1998) were conducted.

Local CR studies on expository compositions (Peralta, 1993); Philippine and English newspaper leads (Gustilo, 2002); advice columns in English and Filipino (Rojo-Laurilla, 2002); sermons delivered by American, Korean, and Filipino religious pastors (Cheong, 1999); complaint letters (Madrurnio, 2003); opinion columns in American, Philippine, and Singaporean newspapers (Genuino 2002); and criminal appeal cases in American and Filipino English (Brylko, 2002) contributed to the growing repository of knowledge on CR.

Much of the previous and current research on CR explores expository prose and essay compositions of students, but seldom on argumentative prose. These two forms of discourse, expository and argumentative –persuasive are vital to academic writing. Studies on argumentative-persuasive discourse appear to have different focuses and adopt different methodologies. The following studies are relevant to the study in as much as they explored the argumentative characteristics of the text.

The study of Connor (1987) examined and described the argumentative patterns in the essays written by students from England, Finland, Germany and the United States. The texts were analyzed based on the problem-solution structure of the text; the interactive patterns in the text and the text as medium of direct appeal to audience and were later rated for over-all quality of the composition.

Results of the study revealed that the highly-rated persuasive essays employed the situation problem + solution + evaluation pattern which was followed by the English and US students but was inconsistently used in the Finnish and German student compositions. Connor also noted that the speech act sequence of asserting a claim, justifying and inducing it was dominant in the problem development portion of the highly rated composition. The level of audience awareness as reflected in the writer's argumentative essay showed direct and close relationship to the quality rating by the raters. Connor suggested that to explain writing quality, it is useful to combine linguistic, psycholinguistic, and sociolinguistic perspectives in text analysis.

Ferris (1994) also found differences in the persuasive argumentative writing of native and non-native English speakers in various variables such as quantitative, topical structure and rhetorical variables. These analytical tools were used to address the perceived areas of weakness (see Ferris, 1994): inadequate content, poor organization and stylistic inappropriateness. Her study revealed that native speakers had greater number of clauses in their sentences

and longer discourses than did non-native speakers. Also native speakers had the lowest ratio of subtopics to sentences which indicated a greater focus in writing than that in the non-native speakers' composition. Her analysis of the topical structure also revealed the native speakers' preference for sentence patterns with immediate introduction of the topical subject at the beginning of the sentence and employment of variety of ways of introducing topic.

On the contrary, non-native speakers were found to have preference for discourse markers to begin a sentence and for sentence patterns with main clause followed by subordinate clause. Rhetorical variables, counter arguments and added Toulmin scores also differed between the two groups with the native speakers providing more counterarguments and possessing better Toulmin scores that reflected more proficient reasoning. Toulmin score was the sum and composite score for claim, data, and warrants by the independent raters in analyzing informal reasoning based on Toulmin (1958 as cited by Ferris, 1994) rating scale.

Following a different approach, Kamimura and Oi (1998) examined the argumentative strategies employed by American and Japanese students in their English essays on capital punishment. Unlike Connor (1987) and Ferris (1994), Kamimura and Oi analyzed the essays in terms of organizational patterns, rhetorical appeals, diction, and cultural influences. Kamimura and Oi found a dichotomy of western and Japanese rhetoric evident in the abovementioned variables. In terms of organizational pattern, the authors reported that

Japanese writing is characterized by frequent use of Reservation, the organizational unit responsible for the characteristic of circularity. In order to achieve persuasion, Japanese writing tended to use affective appeals and emotional strategies to evoke empathy from the readers; while English writings tended to employ rational appeals and logically oriented argumentative strategies.

Examining closely the diction, the authors found that Japanese students preferred softening devices or hedges such as “ **I think**” and “ **maybe**” while American students preferred emphatic devices such as “**should**” **the + superactive** and “ **I believe**”. Ascertaining cultural influences also revealed differences in preferred cultural tokens with the Japanese students’ perception on the need to consider the victim’s family and friends in contrast to the American reference to counseling, biblical references and taxpayer’s standpoint. Kamimura and Oi (1998, p. 318) pointed out that the differences in their argumentative strategies are the results of the Japanese ‘high contact’ culture “where message is deeply embedded in shared assumptions and human relationships among members” and the American ‘ low-contact’ culture “where a message is transmitted in clear, verbal code with little influence of social ties among individuals”.

The study of Wu and Rubin (2000) investigated the cross-cultural differences in the argumentative writing of Chinese and American college students. The authors examined how language and culture influenced the

students' writing in terms of concepts associated with collectivism and individualism. Their analyses of the discourse features included the concepts of 1) indirectness, 2) personal disclosure (use of first person singular pronouns, personal anecdotes), 3) use of proverbs, 4) collective self (use of first person plural pronouns, humaneness, and collective virtues, 5) assertiveness. The Twenty Statements Test (TST) also called the Kuh and McPortland (1954) was used for assessing individualist and collectivist tendencies.

The tendency of the Taiwanese Chinese students to be collectivists and the US students to be individualists corroborates the findings of previous studies on Asian and Western culture. The authors claimed that the concept of collectivism was expressed in the Taiwanese writing in Chinese through indirectness, expressions of Confusion principles of humaneness and collective virtue, and a greater reliance on proverbs and other canonical expressions. On the other hand, American writing was characterized by increased self-disclosure through the use of personal anecdotes. Wu and Rubin also found the same characteristics in the Taiwanese writing in English in addition to high frequency of first person plural pronouns and hedges. Taiwanese writing in English compared to their writing in Chinese revealed more frequent use of first person pronouns, collective virtue passage but less frequency of proverbs and canonical expressions.

Wu and Rubin claimed that the mixed patterns and variability in the writing features indicate that the Taiwanese are becoming westernized. They concluded

that “a Chinese language writing preference and certain cultural writing conventions account for the differences in the writing features of the Taiwanese discourse in both Chinese and English.

Another genre that tends to exhibit argumentation is the newspaper editorial. The study of Pak and Acevedo (2008) looked into the use of attribution to sources as a device of argumentation. On the other hand, the study of Wang (2008) explored how the Chinese and Australian writers manifest themselves, manipulate the topic and address their readers. The editorial texts were analyzed in terms of rhetorical structure, identification, writer identity, and appraisal system in English.

Wang claimed that the rhetorical structure of the Chinese editorial followed an analytical (problem solution) exposition which is different from the thesis-argument-conclusion model of the English exposition. Wang also noted the absence of the author’s voice in the editorial text, which runs counter to the English text where authorial presence is manifested in the use of first person pronoun. He further described the Chinese text as “object-centered” rhetoric and the English text as “author-centered” rhetoric. Also engagement with the readers in the Chinese text was achieved with the employment of modality markers such as “**should**” and “**most**” which reflected an authoritative voice and an objective and impersonal attitude. English texts were found to employ more linguistic strategies and devices such as projection, concession, and modality to engage with and convince readers. Wang attributed the differences in

discursive practices to situational context and socio-cultural factors. Of relevance to the study is the manifestation of the authorial presence in the text and the writer-reader engagement.

The above-mentioned studies displayed the multiplicity and variability of approach in the investigation of argument of a text depending on the selected focus of analysis. This study focused on the use of metadiscourse in the argumentative text particularly dissertation writing of advanced Filipino writers of English.

The review of concepts and theories related to metadiscourse, argumentation, academic writing and contrastive rhetoric and the relevant studies conducted has lead this study to the realization that most CR studies on metadiscourse were done in English and Western languages such as English-Spanish, English-Bulgarian, English-Slovene, English-Finnish, and English-French but are limited in Asian languages particularly Filipino language. This also revealed a dearth of studies on metadiscourse in dissertation writing across cultures and across disciplines especially among second language writers. The review also disclosed conflicting and varying degree of influence of culture in the academic writing of non-native speakers of English and subsequently, ushered this work into various methodological approaches regarding CR studies on metadiscourse. Furthermore, the review on local dissertations in leading tertiary institutions in the country revealed that there was no study yet on Metadiscourse in Filipino dissertations.

The present study differs from the previous studies mentioned for it focused on the comparison and contrast of the dissertation writing of Filipino writers of English in terms of metadiscourse use in selected disciplinary fields. Unlike the work of Hyland which analyzed theses and dissertations written by Chinese EFL writers across disciplines, this study only used dissertations of Filipino writers from four different disciplinary fields.

Chapter III

RESEARCH METHODOLOGY

This chapter presents the research design used in the study, the data for analysis and the procedures for the collection and analysis of the corpus.

3.1. Research Design

This study used the descriptive-qualitative research method. The descriptive method is appropriate to use when the researcher is concerned with understanding the nature and characteristic of a phenomenon or a situation (Garcia, 2003) as it reports the way things are (Sevilla et.al.,1992). It describes what actually exists such as conditions or practices (Calderon and Gonzales, 1993). Since the study is concerned with the description of the nature and characteristics of Filipino writers' academic writing, specifically dissertation writing by Filipino postgraduate students as regards the use of metadiscourse in the two rhetorical sections, namely; Introduction and Results and Discussion sections, the descriptive method is best to use. However, it went beyond mere tabulation of data and involved interpretation of the significance of what is described. Both qualitative and quantitative research methods were employed. Simple statistical tools such as frequency count, arithmetic mean, percentage and ranking were used. The former was useful in the analysis and description of the metadiscourse resources employed in the dissertation writing, while the latter was used to analyze the differences in metadiscourse use.

3.2. Data for Analysis

The data for this study used forty postgraduate dissertations written in English in four selected disciplines by Filipino advanced second language writers. Dissertations were selected as data for analysis because this is one of the types of academic writing that is hardly explored due to its bulk and size (Swales, 1990). The authors were selected based on their institutional affiliation, nationality, and academic degree as indicated in the author's biography and title page section of their doctoral dissertations. English was chosen because it is the medium of common interaction and the global language for research and scholarship (Bathia, 1993). The choice of disciplinary fields, that is, Applied Linguistics, Business Administration, Biology and Engineering was based on the fact that the first two are a representative of soft science and the remaining two are a representative of hard science. Moreover, the choice of data was also constrained by the availability and accessibility of the corpus in the local setting.

In order to meet *tertium comparationis* or the corpora comparability and homogeneity, a set of criteria was established. The notion of comparability or the concept of equivalence of corpora is of vital importance in rhetorical studies (see Kachru, 1999; Markkanen, Steffensen, Crismore, 1993; Moreno, 2008). The choice of the corpora then was based on a number of criteria. The first criterion was that, it must be a doctoral dissertation in the four selected disciplinary fields in order to obtain homogeneous data because this might have an effect on the analysis of the text. The second criterion was that, it must be the Introduction

and Results and Discussion section or Presentation and Data Analysis section. The third criterion was that, it must have been written in English by Filipino dissertation writers. Finally, it must have been approved and submitted from school year 2005 to 2012 as this study assumes that time influences the style of writing. The school year covering the dissertations also depended on the availability of the data. Also, to observe comparable data, number of pages was considered; hence only data with pages numbering 200 and below in any section were considered. Due to time constraints and to the difficulty of securing copies of doctoral dissertations in the Philippine tertiary institutions, only ten dissertations in each set of writers in the four selected disciplines were used.

The corpora were taken from the two rhetorical sections of the dissertation, namely: the Introduction and the Results and Discussion sections or the Presentation, Analysis and Interpretation sections of the dissertations as it is assumed that these are the sections where metadiscourse markers are predominantly employed by dissertation writers as they announce, assert, and justify their claims, and persuade readers of the veracity of their proposition, the validity of their claims, the novelty of their research undertakings and the significance of their contributions to the already existing repository of knowledge. Furthermore, the persuasive- argumentative nature of these two sections permit the use of metadiscourse resources as rhetorical linguistic strategies to achieve writers' communicative goals.

The data written by Filipino advanced academic writers were obtained from two leading private tertiary institutions and two premier state universities in the Philippines.

The corpora of the study are summarized in the following table.

Table 1
Summary of the Corpora from the Four Groups of Writers

Disciplinary Field	SOURCE		No. of Dissertations
	Public universities	Private universities	
Applied Linguistics	5	5	10
Business Administration	5	5	10
Biology	8	2	10
Engineering	8	2	10
TOTAL	26	14	40

Since there were enough data for Dissertations in Applied Linguistics, five representative data were taken from state universities and another five from private tertiary institutions which were randomly selected. On the other hand,

since there were limited data in Biology, Engineering and Business Administration, purposive sampling was employed.

3.3. Data Collection and Data Analysis Procedures

Figure 2 below shows a flow chart of the procedures followed in the data collection and analysis of the corpus.

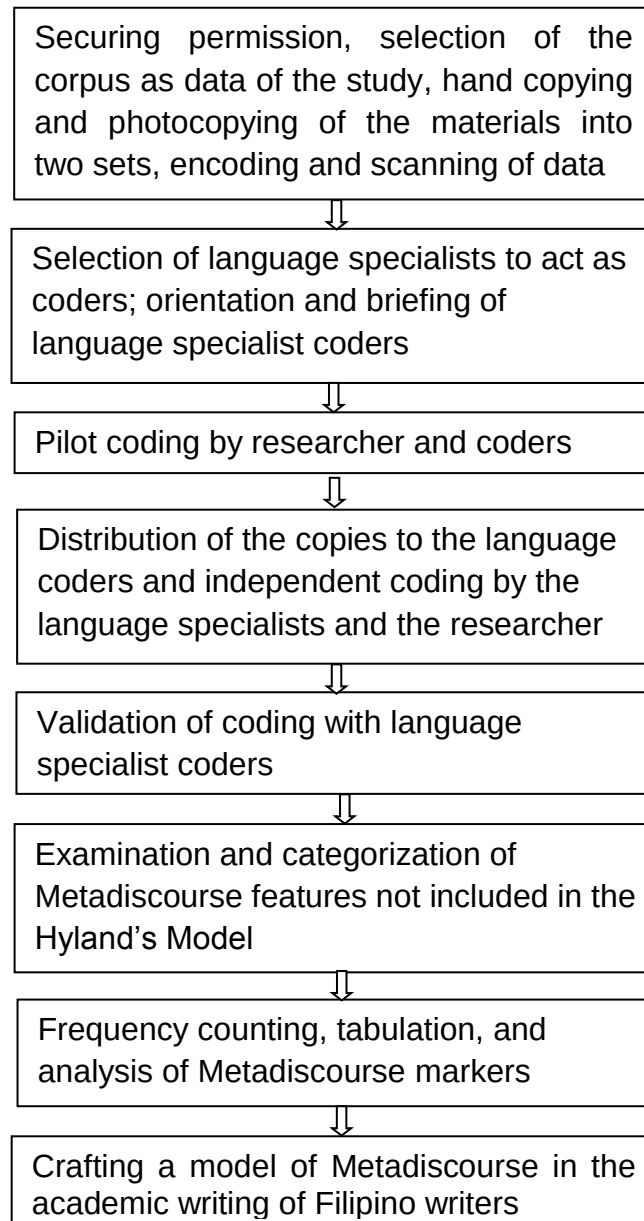


Figure 2. Flow of procedures for data collection and analysis of corpus

1) Permission to obtain the needed data was secured. Upon approval of the authority concerned, the corpora were selected through purposive and random sampling. Due to limited number of dissertations, purposive sampling was conducted on data in Engineering, Biology and Business Administration while random sampling was done on data in Applied Linguistics. Selection was based on a set of criteria.

- It must be a doctoral dissertation in the field of Applied Linguistics or Language Education, Business Administration, Biology and Engineering.
- It must be written in English by Filipino dissertation writers
- It must have been written from school year 2005 to 2012
- It must be the rhetorical section of an Introduction and Results and Discussion or Presentation and Data Analysis section

The data were collected from the various libraries in the four selected institutions in the country by hand copying and photocopying portions of the dissertations by the researcher herself and through the aid of student assistants. Since the examination of the linguistic features does not intend to disclose the total amount of Metadiscourse resources in the text, but simply to compare the patterns of occurrences of metadiscourse in data of varying length, only 50% of each of the two sections of the dissertations was analyzed to ensure that the corpora were indeed comparable. This is also in keeping with Kachru's (1999) suggestion on comparability of texts in rhetorical analysis. (see Moreno, 2008

and Markkanen, Steffensen, and Crismore, 1993; also cited by Genuino, 2002; Mercado, 2006).

Data collected were then encoded and scanned to convert them into electronic data. The corpora taken were the Introduction section and the Results and Discussion section because these are the rhetorical sections assumed to contain large amount of metadiscourse due to its persuasive and argumentative nature. Only metadiscourse features found in the body of the text were chosen for analysis and no metadiscourse markers coming from headings, captions, tables, and figures were included. The number of words were counted using Microsoft word to obtain a global idea of the amount of metadiscourse in the text. The number of words from the tables, figures, captions and examples not part of the text were excluded, thus they are not part in the counting of words.

The data selected were photocopied in two sets, one copy was distributed to the selected language specialist coder and one was left for the researcher to use during the identification, categorization and coding of the metadiscourse markers used in each of the corpus from the four groups of writers.

2) Four language specialist coders, one for each set of corpus, were selected and were briefed on the nature of metadiscourse, its categorization and coding system. A system of coding devised by the researcher was used for ease of coding the metadiscourse features in the text. (See p. 92 for the symbols used in the coding system). A copy of Hyland's Taxonomy on Metadiscourse in Academic Writing and sample lists of Metadiscourse resources were provided to

language coders to familiarize them with the items of analysis and their categorization. Pilot coding was done separately for each language coders. Language coders and validators were instructors and professors who have no less than nine years of teaching experience. (See Profile of Language Specialists in Appendix A).

For the purpose of the study, the data were analyzed using the Taxonomy of Metadiscourse model proposed by Hyland (2005) since the model is designed specifically to uncover the underlying principles of academic writings. Hyland's framework also offers a comprehensive and a more principled means of identifying actual instances. Since one of the aims of this study is to discover how advanced academic writers manifest awareness of their audience and their text in disciplines, this model is best appropriate to use. The analysis of metadiscourse was confined to the interactive metadiscourse which consists of *Transitions, Frame markers, Endophoric markers, Evidentials, and Code glosses*; and the Interactional markers which include *Hedges, Boosters, Attitude markers, Engagement markers, and Self mentions*.

Table 2 below shows Hylands' (2005 p. 49) and Hyland and Tse's (2004 pp. 169) categories of Metadiscourse in academic writing.

Table 2

Hyland's Model of Metadiscourse in Academic Writing

Category	Function	Example
Interactive Resources	Help to guide reader through the text	
Transitions	Express semantic relation between main clauses	addition, but, thus, and
Frame markers	Refer to discourse acts, sequences or text stages	Finally, to conclude, my purpose here is to
Endophoric markers	Refer to information in other parts of the texts	Noted above, see figure, in section 2
Evidentials	Refer to source of information from other texts	According to X, (Y, 1990), Z states
Code glosses	Help readers grasp functions of ideational material	Namely, e.g., such as, in other words
Others		
Interactional Resources	Involve the reader in the argument	
Hedges	Withhold writer's full commitment to proposition	Might, perhaps, possible, about,
Boosters	Emphasize force or writer's certainty in proposition	In fact, definitely, it is clear that
Attitude markers	Express writer's attitude to proposition	Unfortunately, I agree, surprisingly
Engagement markers	Explicitly refer to or build relationship with reader	Consider, note that, you can see that
Self-mentions	Explicit reference to authors	I, we, my, our
Others		

Following Hyland's model, the items of analysis were identified, examined and classified independently into the various categories and subcategories of Metadiscourse by the researcher and the four language specialist coders. The Interactive metadiscourse were classified into *Transitions*, *Frame markers*, *Endophoric markers*, *Evidentials* and *Code Glosses*. The Interactional metadiscourse were also classified into *Hedges*, *Boosters*, *Attitude Markers*, *Self-mentions* and *Engagement Markers*. However, the subcategories remain open to accommodate Metadiscourse markers which may be culture specific but are not accommodated in Hyland's Taxonomy of Metadiscourse for academic writing.

The Interactive markers are the language resources employed by the writers to guide the readers in navigating and understanding the text such as the use of *Transitions* to show semantic relationships of clauses which are represented by conjunctions and adverbial expressions. These also include *Frame markers* which indicate text boundaries, label text stages, announce discourse goals and topic shifts; *Code glosses* which aid comprehension with the use of definitions, illustrations, and explanations of concepts assumed to deter reader comprehension. Reader guidance is also achieved with the use of *Endophoric markers* to refer to or locate information to other parts of the text and the *Evidentials* to refer to other sources of information outside the text to validate information and support arguments.

Meanwhile, the Interactional metadiscourse markers are the language features that engage the reader in an interaction. These include the *Hedges* which express the writer's uncertainty and tentativeness to the proposition to show deference to other readers, *Boosters* to indicate the writer's commitment to the proposition, and *Attitude markers* to show the writer's attitude and assessment of the information in the text. *Engagement markers* which involve the readers to engage and negotiate with the text and the *Self mentions* which show the writer's presence in the text also belong to this category.

The difficulty in examination and analysis of metadiscourse lies in the absence of linguistic criteria for identifying the metadiscourse since metadiscourse can be realized in a variety of linguistic forms ranging from punctuation such as colon, affixes, exclamations, simple words and phrases to whole clauses and even sequences of several sentences. Metadiscourse can also function in different ways according to the meaning conveyed and the type of relations in the discourse. Since metadiscourse is multifunctional, context-dependent (Hyland, 2005; Adel, 2006) and realizable in many forms, the metadiscourse markers were identified from the propositions functionally and manually throughout the corpus; that is, all the potential metadiscourse devices were examined qualitatively based on the actual context in which they occurred and the identified item were counted manually. In the event the metadiscourse item had more than one function, it was classified based on its closest intention in the context. For example:

The next section will verify the results both derived from the ODE simulation and the PA-10 implementation. (Engineering)

In the example above, the Metadiscourse functions both as *Endophoric marker* by reference to other part of the text and as *Frame marker* by announcing the goal of the next section. When this happens, there is the difficulty of categorizing the Metadiscourse. In this case, the functions and the context were considered and the researcher and the language coder have to agree on the category. In the next example,

And finally, the closure of these structures during repair and maintenance works gives immeasurable impacts on the local economy in terms of losses in revenue on the part of the government. (Engineering)

the metadiscourse, *And finally*, functions as *Transition*. However, since *finally* indicates the presentation of the last argument, *finally* is classified as *Frame marker* while *And* is classified as *Transition*.

Finally, the identified metadiscourse were classified into ten sub-categories and were coded, as follows:

for Interactive: Metadiscourse:

Tr	–	Transitions
Fm	–	Frame Markers
End	-	Endophoric markers
Ev	-	Evidentials
Cg	-	Code Glosses

and for interactional Metadiscourse:

He	-	Hedges
Bo	-	Boosters
Am	-	Attitude markers
Eng	-	Engagement markers
Sm	-	Self-mentions

3) Prior to the coding proper, pilot coding was conducted to test the viability of the model to use, and three data in Applied Linguistics, Biology and Business Administration not included in the study were utilized for coding and categorization purposes. Language specialists who have teaching experience of not less than nine years were selected as language coders and validators. They were chosen instead of practitioners in the field because it is assumed that language specialists are more academically prepared in terms of language devices which are the focus of the study. Selected language coders were acquainted on the nature and classification of Metadiscourse and were briefed on the coding process.

A coding system devised by the researcher was used for ease of coding and Hyland's Taxonomy of Metadiscourse for Academic Writing was adopted to categorize the metadiscourse resources. The coding system consists of symbols representing each category in Hyland's taxonomy (See p. 92 for coding symbols). Also a list of samples of metadiscourse taken from Hyland and how

these were used in sentences was also given to the language coders to familiarize them with metadiscourse features. Identified metadiscourse features were underlined, categorized and coded above such as Tr for *Transitional*, Ev for *Evidential*, Fr for *Frame marker* and the like. To illustrate:

- 1) Strain RG-33 had unique phenotypic and genotypic characters, ^{Cg}i.e., it ^{He}can tolerate NaCl ^{Cg}(up to 4% NaCl) concentrations and high ^{Tr}temperature (4⁰C) and it was the only strain that exhibited restriction pattern C in the restriction enzyme analyses ^{End}(Figure 6). ^{Tr}Because of these characteristics, strain RG- 33 was selected for partial nucleotide sequence analysis.

In the example above, the discourse marker “*i.e.*” which stands for that is, was considered a *Code Gloss*, since it explains what phenotypic and genotypic characters are; thus, it was labeled as **Cg**. It explains that phenotypic and genotypic characters refer to the ability to tolerate NaCl concentrations of up to 4% and high temperature. Similarly, *(up to 4% NaCl)* was categorized as *Code gloss* since this adds to the understanding of the reader of up to what level of concentration can Strain RG-33 tolerate NaCl. On the other hand “*and*” and “*because of these*” were labeled **Tr**, which corresponds to *Transitions*, since they indicate semantic relationships in the sentence. The discourse feature “*can*” in “*can tolerate*” indicates possibility or ability to do something as assessed by the writer; hence it was categorized as *Hedge* or **He**. Lastly, *(Figure 6)* was categorized *Endophoric marker*; hence, it was labeled **End** since it directs the

reader to another part of the text for better understanding. Linguistic items which were identified with potential metadiscourse function either by the researcher or the language coder but were not accommodated in Hyland's Model of Metadiscourse were noted.

The researcher and language coder coded independently the data. Since language coders come from different campuses, pilot coding was done separately among the four language coders for two to two and a half hours to familiarize them with the nature of metadiscourse, the codes, and the process.

4) After pilot coding, coding proper was begun so the data were distributed to each language specialist coder. Each coder received a set of ten data in one identified discipline and the corpora were coded separately by the researcher and the four independent coders using the codes devised by the researcher for the purpose of the study.

The four coders are instructors and professors who specialize in English language teaching and have taught English for nine to 26 years. They are faculty members of a state university in Central Luzon assigned in separate campuses. The researcher met separately with the language coders for the validation every week depending on the availability of the coders or on scheduled dates agreed upon.

5) After the corpora had been coded and categorized in terms of the metadiscourse, the researcher, together with the language specialist coder, compared these with their own coding and categorization of the metadiscourse

markers in order to validate the results. A potential metadiscursive feature identified and coded similarly by both the researcher and the language specialist coder was considered agreement. On the other hand, a potential metadiscourse marker identified but coded differently by the researcher and the language specialist coder was considered a disagreement. All agreements were marked with a check while all disagreements were marked with an asterisk and were noted below at the bottom of each page. In the event there were discrepancies in the categorization of the metadiscourse resources, the researcher conferred with the language specialists to discuss the points of disagreement in order to arrive at a consensus on the proper categorization of the metadiscourse resources. Both the researcher and the coder looked into the context of use and the reference in order to arrive at a more accurate categorization.

Intercoder reliability was computed using the formula below. To get the percentage of agreement:

$$\text{Percentage Agreement (\%)} = \frac{\text{Agreement}}{\text{No. of Metadiscourse}} \times 100$$

6) Following the validation of metadiscourse, re-examination of the texts was done by the researcher to record other potential metadiscourse markers. Other language features with metadiscursive function identified by the language coders and the researcher during and after the examination and coding process were categorized by the researcher. Language resources found to aid readers in

understanding the text but were not accommodated in Hyland's Model were given subcategory. One subcategory was added to the Interactive metadiscourse to accommodate lexical items that lead readers to focus attention to particular words or topics or refer to immediate reference for emphasis or for the recovery of meanings such as demonstratives *this* and *these*, *particularly*, *in particular*, *in regard to*, *the former*, *the latter*, *such*, *respectively*, *here*, *one of*, *etc.* Only the pronoun *this* and *these* that explicitly refer to an item in the texts such as *in this study*, *in this case*, *in this view*, *in this instance*, *etc.* were counted as metadiscourse. These are categorized as *Focus markers*. Following are exemplifications of *Focus marker* demonstrative *this*:

a) The plant of interest in this dissertation is Annona squamosa Linn. (Biology)

b) In this view, vocabulary knowledge plays a significant role in L2 reading comprehension in the same way that L2 reading paves opportunities for L2 readers to acquire unfamiliar words. (Applied Linguistics).

The example *this dissertation* in sentence (a) explicitly refers to the evolving text itself while the expression *in this view* in sentence (b) refers to a particular view or perception which is the topic of the discourse.

On the other hand, one subcategory is also added to Interactional metadiscourse to refer to explicit references to the reader such as the second person pronouns *you* and possessive pronoun *your/s* to determine degree of explicitness and reader awareness of the writers. This is subcategorized as *Reader marker* which is subsumed in the subcategory *Engagement markers* of

Hyland's model. The following are exemplifications of the *Reader marker* category taken from data in Business Administration:

- a) Make sure you have representatives from other contributing SLAs on your SLA developing team.
- b) If a customer insists that you change something you cannot change, the negotiations are over.

The pronoun *you* and *your* in sentences (a) and (b) are linguistic resources explicitly referring to the reader.

To complement Hyland's Taxonomy of Metadiscourse in the analysis, the following schemes were used. For ease of identification of hedges, Salager-Meyer's (1997) Taxonomy of hedges was used, for analysis of conjunctions, Halliday and Hasan's (1976) concept of Cohesion was adopted, and for examination of citations or Evidentials, Samraj's (2008) classification of citations was used in the present study. Based on Salager-Meyer's Taxonomy of hedges, modal auxiliary verbs, modal lexical verbs, adjectival, adverbial and nominal phrases, approximators of degree, quantity, frequency and time, introductory phrases such as *I believe*, *to my/our knowledge*, *If* clauses and compound hedges such as *it seems probable*, *it would appear*, etc. were identified as hedges. *Transitions* were classified as contrastive/comparative (e.g. *but*, *on the other hand*, *similarly*), additive (e.g. *furthermore*, *also*), causative (*thus*, *as a result*) or temporal (e.g. *after*, *then*). As for *Evidentials*, citations were further classified into integral citation such as *Glen and Dilworth (1994) proposed that* and non-integral citation such as *(Graham et.al.,1999)* .

7) After identification and classification of the potential metadiscourse, the number of metadiscourse markers in each category was counted and the frequency and percentage of occurrence were summarized in tabular presentation.

The total number of words in the Introduction and Results and Discussion sections in each dissertation was counted using Microsoft word in order to have a global idea of how much of the text is Metadiscourse. Number of words counted excludes captions from tables and figures. Since the size of the dissertations in each group varies, the frequency of metadiscourse was calculated per 100 words. Aside from tables indicating summary of frequency, mean, and percentage of occurrence of the metadiscourse markers employed by each group of writers, bar graphs were presented to clearly illustrate the similarity and variations in its use. From the data obtained, analysis was based on the numerical frequencies and percentages of metadiscourse occurrences. At the end of the analysis, a model of metadiscourse use in the dissertation writing of the Filipino writers across the four disciplines was crafted.

Statistical Treatment

The frequency distribution, percentage distribution, simple arithmetic mean and rank were determined for comparison purposes. The total percentage was taken by getting the total number of metadiscourse and the total number of words in each corpus. Thus,

$$\text{Total percentage (\%)} = \frac{\text{Total no. of metadiscourse}}{\text{Total no. of words}} \times 100$$

To get the ratio of metadiscourse to number of words, the formula below was used:

$$\text{Ratio} = \frac{\text{Total no. of words}}{\text{Total no. of Metadiscourse}}$$

Chapter IV

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the data gathered in the investigation, their analysis and interpretation. Following the research questions posed in Chapter I, the presentation includes description of the patterns of Metadiscourse use in the dissertations of advanced Filipino writers in the four disciplines, namely: Biology, Engineering, Business Administration and Applied Linguistics. The description of the patterns of Metadiscourse is generated from the frequency counts.

It also includes a discussion on the similarities and differences in the use of Metadiscourse as rhetorical devices in the writing of dissertations in the above mentioned disciplines. The comparison of the Metadiscourse use is aimed to determine whether there are similarities or digressions in the linguistic preferences of rhetorical devices in the dissertations of Filipino writers across four disciplines.

Finally, this chapter presents the analyses on the possible factors that may account for the similarities and differences in the use of Metadiscourse resources in the different disciplinary fields and a discussion on the implications of Metadiscourse preferences of Filipino writers across four disciplines. A model of Metadiscourse use by Filipino writers is also presented at the end.

4.1. Patterns of Metadiscourse Use of Filipino writers in Dissertations

The linguistic preferences for Metadiscourse markers as rhetorical devices in dissertations reveal patterns of use. This so called “patterns of use” is what characterizes the academic writing as well as the writers themselves. As mentioned earlier, the Interactive Metadiscourse resources which help readers understand and make sense of the texts include **Transitions, Code glosses, Evidentials, Endophoric markers**, and **Frame markers**. On the other hand, Interactional Metadiscourse features that express writers’ personalities, evaluate and react to the propositional content of the text (Vande Kopple, 1985) include **Hedges, Boosters, Attitude markers, Engagement markers** and **Self mentions**.

One subcategory for Interactive Metadiscourse was added to accommodate linguistic features which may reinforce readers’ comprehension but which do not belong to any of the subcategories in Hyland’s (2005) model. The subcategory **Focus markers** was included in the taxonomy to refer to those words or expressions identified in the texts which could lead readers to focus attention to a particular word or topic or to refer to immediate reference in the text. Examples of these are *demonstratives this and these, particularly, in particular, in this view, in this instance, the former, the latter, the foregoing, such, respectively, here, one of, etc.*

Similarly, one subcategory, **Reader markers**, was added to the Interactional Metadiscourse subcategories to separate explicit reference to the reader of the text such as the use of personal pronouns *you* and possessive pronoun *your/s* or the word “reader”. This subcategory would disclose the degree of explicitness and reader awareness of the writers in their texts. In Hyland’s Model this subcategory is included in the subcategory **Engagement markers**.

4.1.1. Patterns of Metadiscourse Use in Biology

Table 3 shows the frequency distribution of the Metadiscourse resources employed and the summary of the Interactive and the Interactional Metadiscourse in the ten dissertations in Biology. The table shows that dissertation writers in Biology use Interactive Metadiscourse twice more than the Interactional Metadiscourse, revealing a frequency of 1,787 or 72.14% of the total number of Metadiscourse markers employed while Interactional Metadiscourse showed only a total of 690 or 27.86%.

The more than doubled presence of Interactive Metadiscourse may be attributed to the numerical preponderance of **Evidentials**, **Transitions**, **Endophoric markers** and **Code glosses** which are the most widely employed rhetorical devices in the texts and which also all point to the primary objective of the writer, that is, to present a coherent, informative and persuasive texts. The presence of **Evidentials** aids in building up arguments, thus they assist readers in making assessments of the writers’ propositions. **Evidentials** do not only help

Table 3 Summary of Metadiscourse in the Dissertations in Biology

Metadiscourse Category	Corpus													
	Code	1	2	3	4	5	6	7	8	9	10	Total	Mean	%
Interactive Metadiscourse														
Transitions	Tr	23	21	9	51	85	20	25	20	61	28	343	34.3	13.85
Evidentials	Ev	54	58	34	39	92	46	37	56	30	20	466	46.6	18.81
Endophoric markers	End	16	20	13	36	80	23	25	20	69	41	343	34.3	13.85
Frame markers	Fm	3	4	5	5	10	5	1	5	24	1	63	6.3	2.54
Code glosses	Cg	29	17	9	26	108	40	20	22	35	32	338	33.8	13.65
Focus markers	Fo	15	18	9	25	58	35	11	28	18	17	234	23.4	9.45
Total												1,787		72.14
Interactional Metadiscourse														
Hedges	He	45	37	39	50	104	31	40	29	105	49	529	52.9	21.36
Boosters	Bo	6	5	3	2	33	8	4	2	7	4	74	7.4	2.99
Attitude markers	Am	2	11	5	17	13	7	9	8	8	7	87	8.7	3.51
Engagement markers	Eng	0	0	0	0	0	0	0	0	0	0	0	0	0
Self mentions	Sm	0	0	0	0	0	0	0	0	0	0	0	0	0
Reader markers	Rm	0	0	0	0	0	0	0	0	0	0	0	0	0
Total												690		27.86
Over all total no. of Metadiscourse		193	191	126	251	583	215	172	190	357	199	2,477		
Total no. of words		2,710	4,263	2,358	5,183	11,131	5,343	3,420	3,601	6,303	4,643	48,955		

build arguments but also display the writer's profound readings and scholarly treatment of the discourse indicating his depth of knowledge in his field of discipline making him a person of credence and competence in the eyes of his readers. This is illustrated in the following examples:

- a) In addition, Begonia taxonomists Doorenbos et.al. (1998), Peng et.al. (2002) and Kiew (2005) claimed that ...
- b) Meanwhile, selection of acid-tolerant strains has been pursued in other countries (Graham et.al, 1994; Del Papa et.al, 1999; Ricillo et.al, 2000).
- c) These changes in the ATPase genes are species-specific and thus can be used to detect relatedness of closely allied species (Meyer, 2993, 1994a, Chow and Kishino, 1995).

It is noteworthy to mention that the use of **Evidentials** in the data helps establish the ethos or image of the writer and promotes rational appeal of the text.

Another rhetorical strategy that promotes rational appeal and text persuasiveness is the pervasive use of **Transitions**. These linguistic devices reinforce the rational appeal through the explicit links of arguments in the text; hence, readers are guided in the understanding and interpretation of the discourse. Conjunctions and adverbial phrases such as the following: *However, in contrast, on the other hand, likewise, moreover, thus, as a result* are generally used in the dissertations to signal explicit relationships of arguments which include contrastive and comparative, causative as well as temporal relationships.

Clarity of links among the arguments would definitely guide the readers as to how to read and interpret the text.

Also, due to the nature of scientific texts containing a host of technical and scientific terminologies, **Code glosses** are used to assist readers in understanding the technical and scientific concepts through definitions, explanations, illustrations or exemplifications. The **Code glosses** below taken from the texts would exemplify how writers in Biology employ metadiscourse to ease reader comprehension

- a.) In the Philippines, a recently described coral disease called *Porites ulcerative white syndrome (PUWs)* is a tropical disease affecting *Porites*, *Goniastera minuta* and *Flavia stelligera* ...
- b.) Bleaching refers to the loss of dinoflagellate symbionts that can be caused by both abiotic factors and bacterial pathogens ...
- c.) Apoptosis involves two signaling pathways namely, extrinsic and intrinsic pathways ...

Code glosses “*called*” and “*refers to*” in a) and b) signal the explanation of technical terms such as *Porites Ulcerative White syndrome*, and *bleaching*; thus, these assist the readers in understanding the concepts being discussed. Similarly, metadiscourse, “*namely*”, leads the reader to the two signaling pathways which are subsequently discussed in the text. The preponderance of **Code glosses** in the dissertations shows that scientists in the field of Biology assess and anticipate what their readers already know and what they still need to know. Furthermore, technical and scientific concepts are quite complex to understand in Biology, hence, graphs, charts, pictures, and other graphic aids

simplify the presentation of data to facilitate reader understanding. This necessitates the employment of **Endophoric markers** such as; *Figure 3 shows*, *Figure 4 and Appendix Hc summarize*, *is shown in Figure 2*, *are given in Table 5*, etc. to assist readers in text navigation.

The predominance of Interactive Metadiscourse over that of the Interactional Metadiscourse runs parallel to the findings in the study of Hyland in postgraduate writing (2005, 2004), corporate rhetoric, (1998c) and in introductory course books (1998b), of Zarei and Mansoori (2007) and Abdi (2009) in English and Persian research articles. Among Interactive Metadiscourse markers, the **Evidentials** recorded the highest frequency of occurrence with a total of 466 or 18.81%. Of the ten dissertations investigated, six of them ranked **Evidentials** first in terms of frequency of occurrence among the Interactive Metadiscourse devices. This was followed by **Transitions**, **Endophoric markers**, **Code Glosses**, and **Focus markers** which showed a frequency of 343 or 13.85%, 338 or 13.65%, and 234 or 9.45%, respectively. The least used was the **Frame markers** with 63 or 2.54% occurrences in the text.

Focus markers used in Biology texts include the following:

- a) *In this particular investigation*, differences were detected among the microbial constituents of paired epizoic samples ...
- b) *Such a result* was to be expected given the high degree of variability among microbial communities

- c) The novelty profile of the constituents of *A. squamosa*, particularly those of the CHCl partition, resulting from DPPH assay...

These metadiscourse devices assist readers in recovering the idea in the text that the writer would like to emphasize by directing them to focus on particular discourse or topic of discourse for emphasis. The **Focus markers** in *this particular investigation* directs reader's attention to the current study, *such a result* gives emphasis to a result mentioned in the preceding discussion while *particularly* points to a definite reference which is the CHCl partition.

Frame markers are rarely employed in Biology texts. Text stages are usually indicated by outlines and titles of sub-topics, while topic shifts are mostly signaled by indentions and paragraphs as well the use of **Transitions**. The minimal employment of this category could probably be attributed to the homogenous structure of academic texts in this field and the style of technical writing embraced by the discipline such as the observance of the principles of directness and brevity of expressions.

Similar to the study of Hyland (2004) in the dissertations of Cantonese students, **Evidentials** have the highest frequency and **Frame markers** the least frequency in Biology dissertations. Persuasiveness of the text is partly achieved by the numerical preponderance of **Evidentials** through the employment of citations indicating a knowledge informed text, and a credible author. The standard textual structuring of knowledge in Biology texts and the homogeneity of a specialist audience may have resulted in low frequency of **Frame markers**.

Also Biology is a field of science where there is a plethora of scientific concepts and terminologies that needs to be explained either verbally or with the employment of graphs, pictures, drawings, etc. Hence, the predominance of **Code glosses** and **Endophoric markers** is inevitable. Interestingly, the pattern of use in Interactive Metadiscourse is also similar to the present study.

In the study of research articles by Farrokhi and Ashrafi (2009) in three disciplines; Applied Linguistics, Medicine, and Mechanical Engineering, the first three mentioned subcategories were also the most visible. This affirms the concern of the academic writers to present a clear, coherent, and persuasive text. This also speaks of the nature of academic discourse that these are text-oriented and information-oriented as well as less intrusive and less personal in style.

In contrast to Interactive metadiscourse, the employment of Interactional Metadiscourse accounts for only 27.86% which is about less than one-third of the total number of Metadiscourse resources employed which is 2,477. Of this category, the most frequently used subcategory was the **Hedges**, with 21.36% or 529 occurrences which was followed by **Attitude markers** with 87 occurrences or 3.51% and **Boosters** with 74 or 2.99% occurrences. The subcategories **Self-Mentions**, **Engagement Markers** and **Reader markers** were never employed in the dissertations.

Hedging devices in Biology take the form of the following expressions:

- a) Thus, it is important to characterize additional sources of resistance against the components of the *tungro disease* complex which might result to a more durable resistance ...
- b) The higher success rate in the present study could be attributed to the more diverse types of tissues that were used ...
- c) This probably explains why *Rhizobium etli* exists in La Trinidad, Benguet.

The preponderance of tentative expressions in Biology texts may signify the writers' "communal social strategy" (Chavez, 2006) to possibly show politeness. However, despite the expressions of uncertainty and tentativeness, writers maintain their perceived social role as science specialists and technical experts in their own field of discipline.

The findings on **Attitude markers** and **Engagement markers, Self mentions and Reader markers** also showed that Biology as a science, adheres to the practice of impartial and objective reporting of information and this is made possible with the exclusion of explicit references to the author, the reader and the avoidance of personal assessments and comments. Metadiscourse expressions such as, "*It is interesting to note, It is quite remarkable, Interestingly*" to show evaluative assessments are observed in the dissertations but are very rarely employed by the Biologists. Furthermore, the writer and the audience in a scientific discourse are generally absent. What is important is the text. This explains the absence of **Self mentions** and **Reader markers** in these texts. Contrary to the results arrived at in the study of dissertations by Hyland (2004,

2005), Biology texts of second language Chinese postgraduate students employed considerable amount of ***Self mentions*** and ***Engagement markers***. A striking semblance of the present study to that of Hyland's is the high visibility of ***Evidentials*** and ***Hedges*** in both studies.

The summary of the Metadiscourse in the dissertations in Biology can be seen in the graphic presentation of the percentage distribution of the Interactive and Interactional Metadiscourse in Biology in Figures 3 and 4. From the frequency recorded, the data revealed the following patterns of Metadiscourse use in Biology. Pattern of Metadiscourse use refers to the recurrent use of Metadiscourse features in dissertations as shown in the distribution. However, the number of data is suggested to increase in order to warrant a more conclusive generalization in terms of the patterns of Metadiscourse use. The pattern for overall use of Metadiscourse based on frequency includes:

1. Hedges
2. Evidentials
3. Transitions
Endophoric markers
4. Code Glosses
5. Focus markers
6. Attitude Markers
7. Boosters
8. Frame Markers

9. Engagement Markers
10. Self-Mentions
11. Reader markers

Following is the pattern of Interactive Metadiscourse in Biology

1. Evidentials
2. Transitions
3. Endophoric markers
4. Code Glosses
5. Focus markers
6. Frame markers

Meanwhile, the pattern of Interactional Metadiscourse is as follows:

1. Hedges
2. Attitude Markers
3. Boosters
4. Engagement Markers
5. Self-Mentions
6. Reader markers

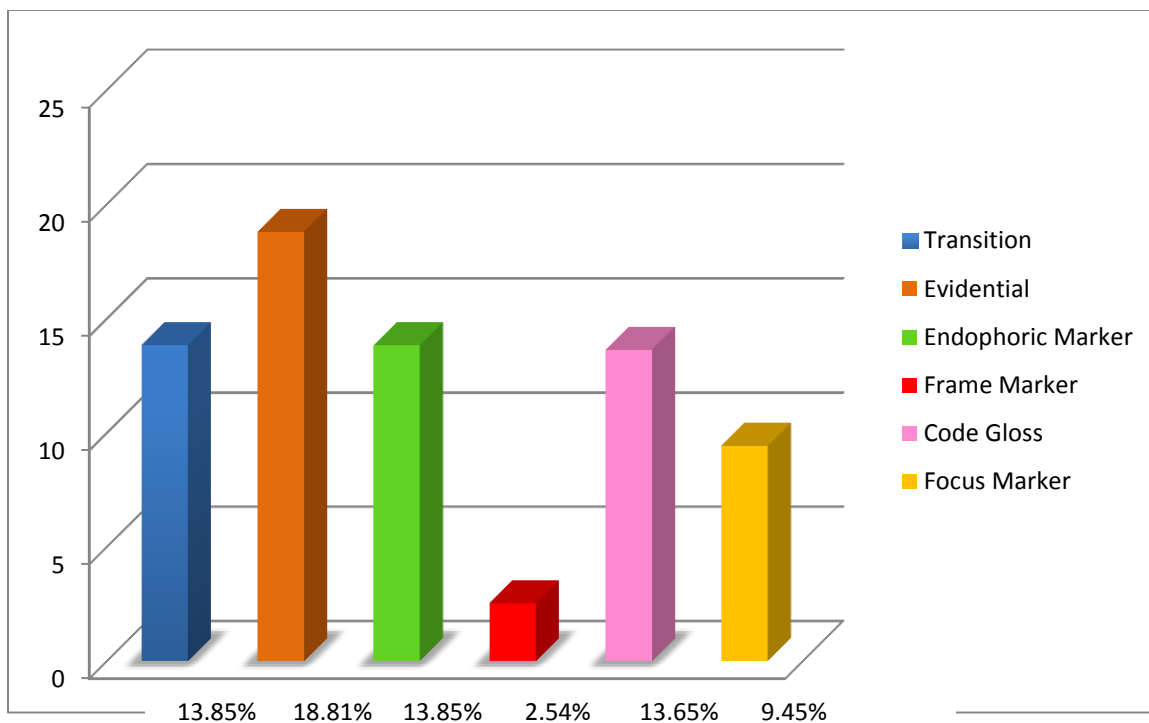


Figure3. Graphic Presentation of Interactive Metadiscourse in Biology

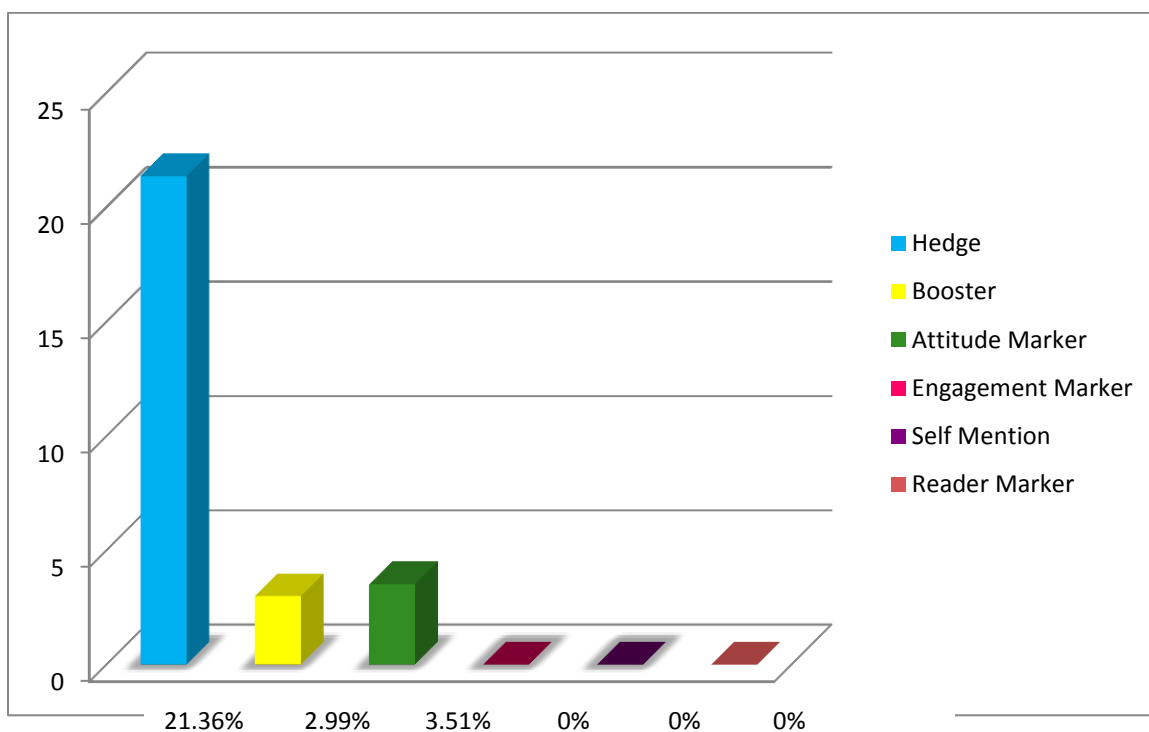


Figure 4. Graphic Presentation of Interactional Metadiscourse in Biology

4.1.2. Patterns of Metadiscourse Use in Engineering

Table 4 shows the frequency distribution and the percentage of occurrence of both the Interactive and Interactional Metadiscourse devices in Engineering.

The findings revealed that among the Interactive category, the subcategory **Transitions** ranks first in frequency with 15.72% or 226 occurrences and also ranks first among five dissertations investigated. This is in contrast to dissertations in Biology where **Transitions** ranks only second while **Evidentials** ranks first among Interactive Metadiscourse. **Transitions** is closely followed by **Endophoric markers** with 14.74% or 212 occurrences, **Evidentials** with 11.82% or 170 occurrences, **Code Glosses** with 10.85% or 156 occurrences and **Focus markers** with 7.02% or 101 frequency. The least employed of the Interactive subcategory is the **Frame markers** with 2.02% or 29 occurrences only.

Compared to the dissertations of the Chinese students (Hyland, 2004), the Filipino texts registered similar patterns in the use of **Transitions** and **Endophoric markers** in Engineering making the former and the latter the first and second in rank among interactive features. The high use of **Transitions** is also corroborated in the study of research articles in Engineering by Farrokhi and Ashrafi (2009). In the study of Abdi (2009) of research articles among second

Table 4 Summary of Metadiscourse in the Dissertations in Engineering

Metadiscourse Category	Corpus																Total	Mean	%
Interactive Metadiscourse	Code	1	2	3	4	5	6	7	8	9	10								
Transitions	Tr	26	12	20	37	23	12	20	21	35	20						226	22.6	15.72
Evidentials	Ev	2	22	7	0	5	16	21	16	66	15						170	17.0	11.82
Endophoric markers	End	19	15	36	20	26	21	6	17	36	16						212	21.2	14.74
Frame markers	Fm	2	1	3	5	8	4	2	1	2	1						29	2.9	2.02
Code glosses	Cg	9	7	13	25	13	23	11	15	25	15						156	15.6	10.85
Focus markers	Fo	11	16	6	9	9	22	8	10	6	4						101	10.1	7.02
Total																	894		62.17
Interactional Metadiscourse																			
Hedges	He	63	43	30	44	24	20	28	25	22	36						335	33.5	23.30
Boosters	Bo	6	9	2	9	7	3	4	5	12	9						66	6.6	4.59
Attitude markers	Am	3	3	2	11	6	7	14	11	11	8						76	7.6	5.29
Engagement markers	Eng	3	0	1	4	2	3	3	8	5	3						32	3.2	2.23
Self mentions	Sm	0	0	20	1	3	0	1	10	0	0						35	3.5	2.43
Reader markers	Rm	0	0	0	0	0	0	0	0	0	0						0	0	0
Total																	544		37.83
Over-all total no. of Metadiscourse		144	128	140	165	126	131	118	139	220	127						1,438		
Total no. of words		3,677	2,502	2,797	3,377	3,226	2,742	2,291	2,539	3,713	2,495						29,359		

language Persian writers in the hard sciences, the **Endophoric markers** recorded the highest distribution among the Interactive Metadiscourse resources.

The scientific discourse of Engineering involves impersonal computations, quantitative data, complex technical and scientific concepts that would necessitate constant use of graphic aids such as tables, figures, photographs and the like to supplement expository discourse. **Endophoric markers** such as *refer to Table 1, see p. 30, in the next section, refer to Figure 5, etc.* are, therefore, employed for the readers to refer to these graphic aids complementing the texts for ease of comprehension.

On the other hand, among the Interactional Metadiscourse resources, the **Hedges** recorded the highest frequency showing a total of 335 or 23.30% which accounts for about one-fourth of the total number of Metadiscourse resources employed. Aside from being the most frequently used Interactional Metadiscourse, it is also the most widely employed among all the Metadiscourse categories. Contrary to the wide perception of precision in science, the high visibility of **Hedges** in scientific discourse aligns Engineering with disciplinary imprecision that conveys tentativeness and evasiveness to the commitment of truth. (Salager-Meyer, 1997). Salager-Meyer refers to these as “linguistic cues of bias which avoid personal accountability for statements.” (p. 107). Together with the infrequency of **Boosters**, this may have been an expression of deference or of being cautious to accommodate other claims which may be contrary to the

recent findings. Expressions like *may, appears, seems probable, possibly, generally, about, etc.* may have reinforced the acceptability of the claims on account of the writers' display of respect to the discourse community. The employment of considerable hedging devices seems to appear that writers in Engineering take into consideration their readers' possible reaction to the texts. The increased visibility of **Transitions and Endophoric markers** could have reinforced the rational appeal of the dissertations while the overwhelming presence of **Hedges** may have promoted the texts affective appeal indicating the writers' degree of sensitivity to the imagined readers.

Meanwhile, the succeeding Interactional subcategories have shown low frequencies in the data investigated. The findings revealed that **Attitude markers** recorded 5.29% with 76 frequency, **Boosters** 4.59% or 66 frequency, and **Self-Mentions** 2.62% or 35 occurrences only. This result affirms the impression that scientific discourse allows small room for personal assessments and subjective evaluations. **Engagement Markers** were the least employed with 2.39% or 32 frequency and **Reader markers** was never used in the Engineering texts. Due to the nature of a scientific discourse, it is not surprising to find low frequency of linguistic features showing author intrusion and reader reference. The following **Self mentions** take the forms of author intrusion in Engineering texts.

- a) The difference is the useful heat absorbed by the collector plate which we denote as Q_u .

- b) We note that the readings shift from negative to positive when temperatures exceed the glass cover temperature.
- c) In our investigation of the solubility of b-carotene, I employed a combination of static –dynamic methods (Appendix B)
- d) In order to achieve a more conclusive interpretation and come up with more predictive behavior, the researcher made use of reduced temperature ...

Boosters such as *Indeed, clearly, It is evident, definitely, undoubtedly* and **Attitude markers** like *this is important, it is not enough, has become immensely important, highly useful* and **Engagement markers** such as *It can be seen, It can be observed, It should be noted, Note that* were identified in the texts; however, these were rarely employed by the writers in the dissertations.

The data also revealed that Interactive Metadiscourse outnumbers Interactional Metadiscourse in frequency accounting for almost 62.17% or a little less than two-thirds of the total number of Metadiscourse devices. To conclude, the top three most frequently used Metadiscourse resources in Engineering are the **Hedges, Transitions** and **Endophoric markers** and the least used are the **Self-mentions, Engagement markers** and **Frame markers**.

Figure 5 and Figure 6 show in graphic presentations the percentage distribution and the linguistic preferences for Metadiscourse resources as rhetorical devices in Engineering dissertations.

Table 4 and Figure 5 reveal the following patterns for Interactive Metadiscourse in Engineering:

1. Transitions
2. Endophoric Markers
3. Evidentials
4. Code Glosses
5. Focus markers
6. Frame makers

For the Interactional Metadiscourse, the pattern revealed by the frequency is:

1. Hedges
2. Attitude markers
3. Boosters
4. Self-Mentions
5. Engagement Markers
6. Reader markers

For the overall use of Metadiscourse devices, the pattern of employment is as follows:

1. Hedges
2. Transitions
3. Endophoric markers
4. Evidentials
5. Code glosses

6. Focus markers
7. Attitude markers
8. Boosters
9. Self-Mentions
10. Engagement markers
11. Frame markers
12. Reader markers

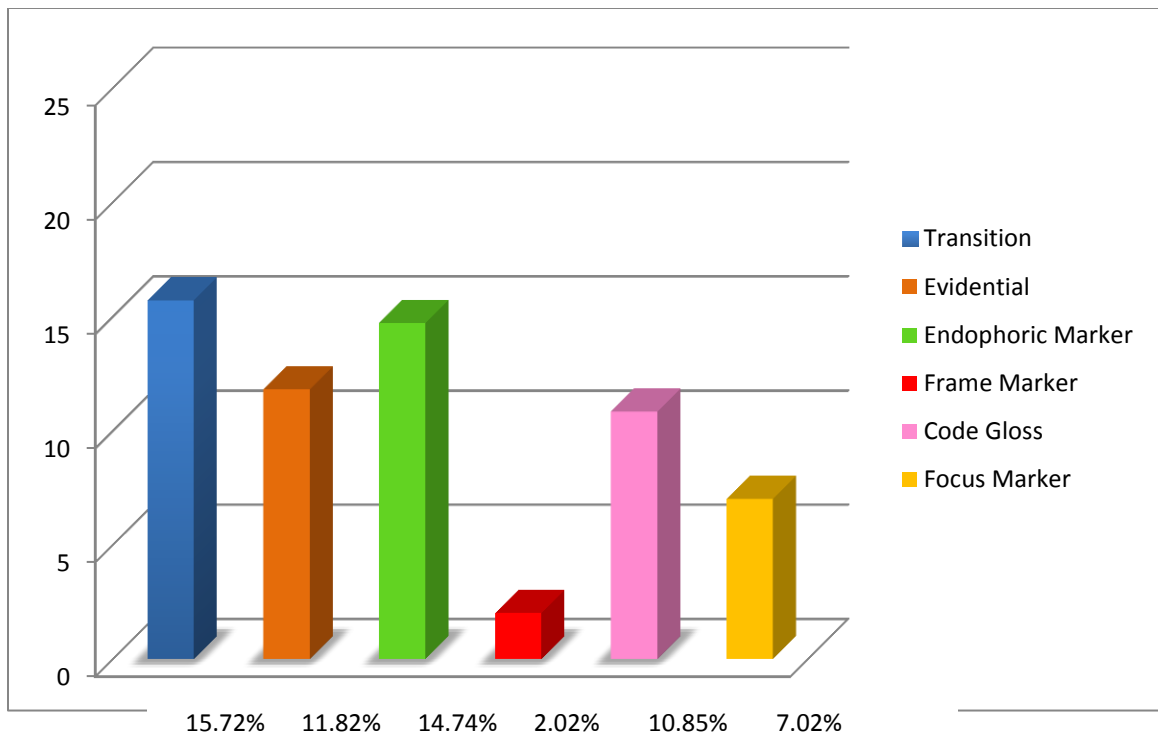


Figure 5. Graphic presentation of Interactive Metadiscourse in Engineering

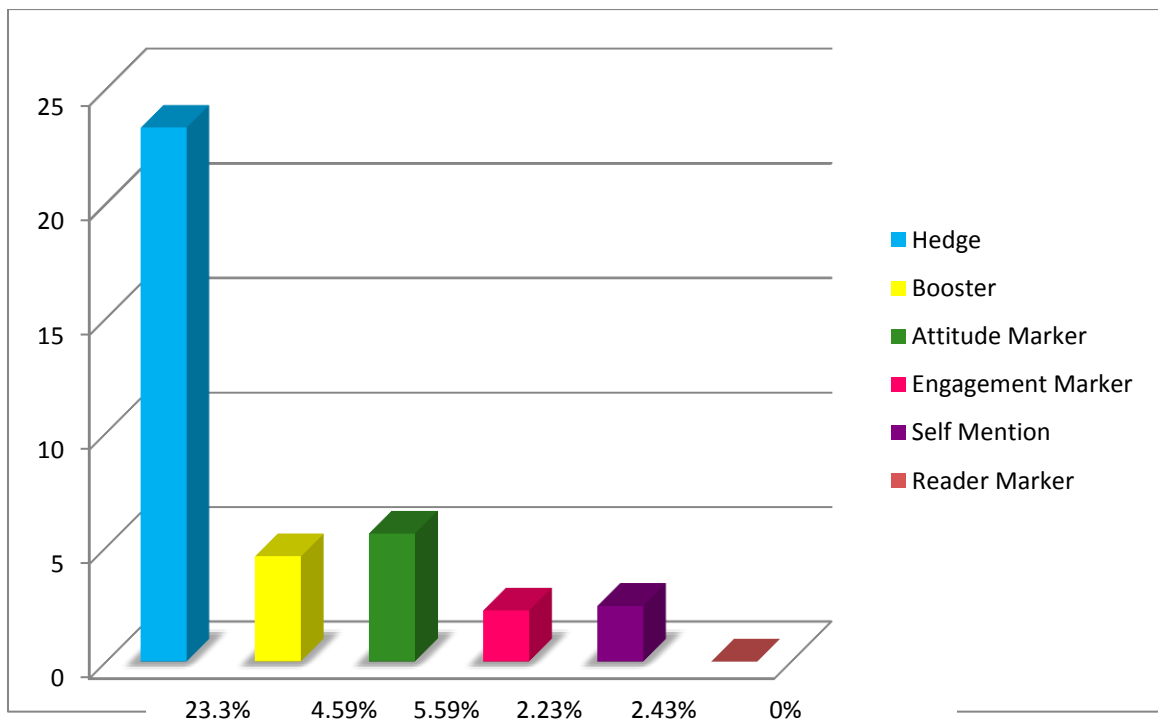


Figure 6. Graphic Presentation of Interactive Metadiscourse in Engineering

4.1.3. Patterns of Metadiscourse Use in Business Administration

Table 5 shows the frequency distribution of Metadiscourse in Business Administration. Similarly, of the two categories of Metadiscourse devices, Interactive Metadiscourse is remarkably higher in frequency than Interactional Metadiscourse resources. The former showed a frequency of 1,559 or 63.58% whereas the latter recorded a frequency of 893 or 36.42% of the total Metadiscourse resources employed.

Results revealed that of the Interactive Metadiscourse subcategory, **Transitions** recorded the highest frequency showing a total of 401 or 16.35%, followed by **Code Glosses** with 371 frequency or 15.13% and **Evidentials** with 333 frequency or 13.58%. Code glosses take the place of **Endophoric markers** in Engineering probably because of the nature of the disciplinary field. The least frequently employed Interactive Metadiscourse resources are the **Frame markers** with 167 frequency or 6.81%, **Endophoric markers** numbering only 149 or 6.08% and **Focus markers** with 138 or 5.63% frequency.

It can be noted that **Transitions** such as *but, however, in addition, and, therefore,* and the like remained to be the most frequently employed Interactive Metadiscourse in Business Administration and Engineering. It can also be inferred that similar to the previous disciplines investigated, the high visibility of these markers manifest the writers' intent to present coherent, informative and persuasive texts. Interestingly, there is a semblance of the pattern of distribution

Table 5 Summary of Metadiscourse in the Dissertations in Business Administration

Metadiscourse Category	Corpus													
	Code	1	2	3	4	5	6	7	8	9	10	Total	Mean	%
Interactive Metadiscourse														
Transition	Tr	52	31	23	42	34	34	44	56	44	41	401	40.1	16.35
Evidentials	Ev	90	19	10	30	29	24	56	48	21	6	333	33.3	13.58
Endophoric markers	End	34	15	15	5	2	10	22	15	20	11	149	14.9	6.08
Frame markers	Fm	17	5	3	50	23	12	17	28	9	3	167	16.7	6.81
Code glosses	Cg	52	7	9	77	96	24	20	55	16	15	371	37.1	15.13
Focus markers	Fo	11	17	16	14	15	7	12	20	12	14	138	13.8	5.63
Total												1,559		63.58
Interactional Metadiscourse														
Hedges	He	67	44	29	77	65	40	122	56	30	29	559	55.9	22.80
Boosters	Bo	4	4	2	3	3	6	4	12	3	2	43	4.3	1.75
Attitude markers	Am	6	21	11	13	14	23	13	10	9	4	124	12.4	5.06
Engagement markers	Eng	9	1	8	17	72	0	6	20	0	6	139	13.9	5.67
Self mentions	Sm	1	0	0	1	0	0	0	0	0	12	14	1.4	0.57
Reader markers	Rm	0	0	0	1	13	0	0	0	0	0	14	1.4	0.57
Total												893		36.42
Over all total no. of metadiscourse	343	164	126	330	366	180	316	320	164	143	2,452			
Total no. of words	3,226	2,806	2,156	8,552	8,808	3,712	4,445	6,636	2,903	2,209	45,453			

of these features in the present study with that of Hyland's (2004, 2005). Similarly, the first three abovementioned subcategories, **Transitions**, **Code glosses**, and **Evidentials** were numerically abundant in the Chinese dissertations while **Frame markers** were numerically deficient. Surprisingly, the **Frame markers** appeared to be the most frequently used in the study of Persian research articles (Abdi, 2009) in the soft disciplines. Abdi explained that the higher use of this subcategory can be accounted for by more listings in the texts. Similar to the study of Abdi, the findings in this study revealed that a considerable number of **Frame markers** are signals of listings exemplified in the following metadiscourse features noted in the texts.

- a) This section presents the following: a) profile of the sample b) financial profile of banks c) results of factor analysis ...
- b) The chapter consists of three parts, section 5.1 discusses the result of the stochastic frontier approach ... section 5.2 then proceeds to the tree hypothesis ... section 5.3 presents the data envelopment analysis computations ...
- c) The three hypothesis are: 1) liberalization increased the profit ... 2) the Asian financial crisis exposed and decreased the industry efficiency ...
- d) Another possible area of similarity or differences is how the ten company respondents ...

On the other hand, among the Interactional Metadiscourse resources, the **Hedges** recorded the highest frequency reflecting a total of 559 or 22.80% which comprise about one-fourth of the total number of Metadiscourse devices used by the writers. It is interesting to note that this is consistent in all the nine

dissertations in the study and consistently similar to the other two aforementioned disciplines, namely; Biology and Engineering. The high frequency of hedges in the texts manifest writers who consider diversity of opinions, thus express reluctance to commit to the truth of their propositions or claims to show respect and deference to members of the discourse community. All the other subcategories of Interactional Metadiscourse come in far smaller percentages with **Attitude markers** revealing 5.06% or 124 frequency, **Engagement markers**, 5.67% or 153 occurrences, and **Boosters** 1.75% or 43 occurrences. Both **Self-mentions** and **Reader markers** recorded the least frequency with 0.57% or 14 occurrences each. The infrequency of **Attitude markers** indicates the avoidance of personal judgments which is a sign of unbiased reporting of the findings. The less preference for these discourse markers appears to increase the acceptability of the writer's claims as this signifies an interpretation that is based on factual assessments. This is also strengthened by the avoidance of **Self mentions** and **Reader markers** by the writers.

It is noteworthy to mention that it is only here in Business Administration where writers made explicit mention of the readers through the employment of the personal pronoun *you* and the possessive pronoun *your* in two dissertations.

The following statements exemplify the use of this metadiscourse in the dissertations:

- a) Make sure you have representatives from other contributing SLAs on your SLA developing team.
- b) The more you try to face a vendor to accept your needs, the more protected the negotiation and the higher the final cost.
- c) Gain an understanding of the problem from the users' perspective and understand the realities of what you can and cannot do.

Reader markers in the texts imply a higher degree of reader presence and reader awareness among writers of dissertations in the Business Administration. The use of **Reader markers** appears to be the writers attempt to break formality, bridge solidarity and narrow social distance between the readers and the writers of the texts. Furthermore, a considerable number of **Reader markers** in the data were used to direct readers to a course of action or to instruct as exemplified by examples a) and c) indicating a knowledgeable, self-assured writer who is in control of his readers and whose imperatives create a greater perlocutionary effect (to use Austin's, 1962; Searle's, 1969 terminology), that is, to persuade readers. Moreover, **Engagement markers** in Business Administration take the form of directives or imperatives and impersonal statements with modals such as *should*, *must*, *It can be noted*, etc. suggesting a person with authority and competence.

Figure 7 and 8 show in graphic presentations the distribution and the linguistic preferences for Metadiscourse use as rhetorical devices in dissertations in Business Administration.

Based on Table 5, the frequency of occurrences reveals the following pattern of Interactive Metadiscourse in Business Administration.

1. Transitions
2. Code glosses
3. Evidentials
4. Frame markers
5. Endophoric markers
6. Focus markers

Meanwhile, the pattern of Interactional Metadiscourse is as follows:

1. Hedges
2. Engagement markers
3. Attitude markers
4. Boosters
5. Self- mentions and Reader markers

In the over- all categories of Metadiscourse, the pattern is as follows:

1. Hedges
2. Transitions
3. Code glosses
4. Evidentials
5. Frame markers
6. Endophoric markers
7. Engagement markers
8. Focus markers

9. Attitude markers
10. Boosters
11. Self- mentions and Reader markers

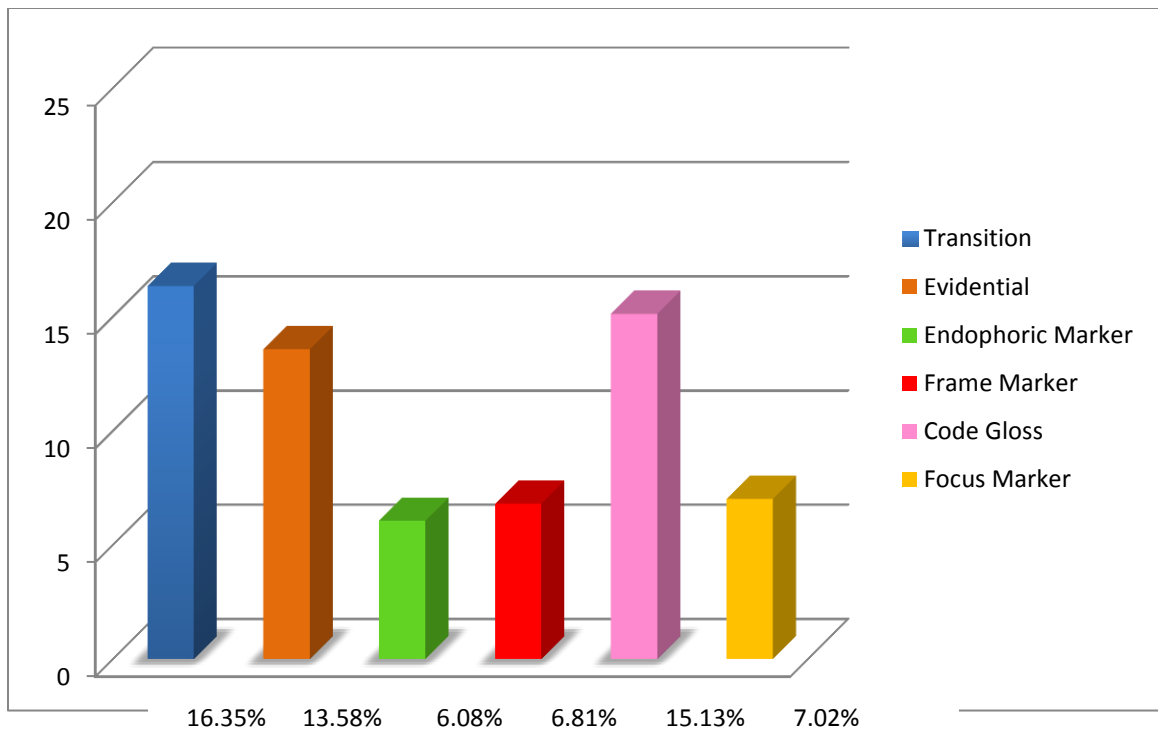


Figure 7 Graphic Presentation of Interactive Metadiscourse in Business Administration

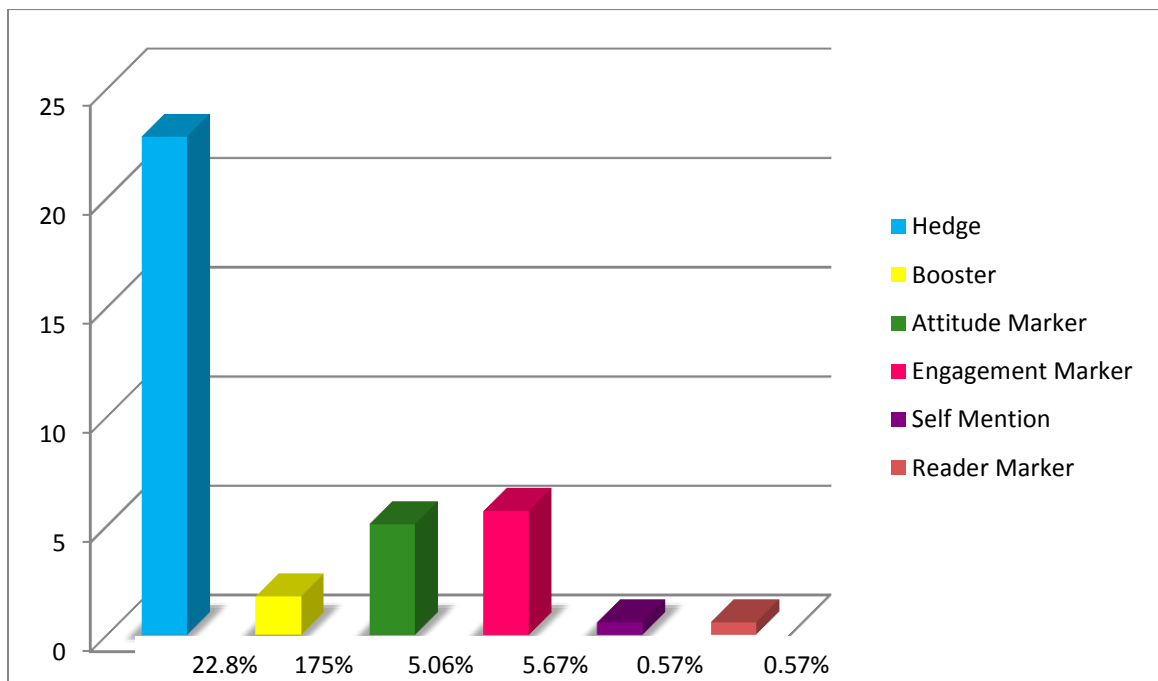


Figure 8. Graphic presentation of Interactional Metadiscourse in Business Administration

4.1.4 Patterns of Metadiscourse Use in Applied Linguistics

The frequency of Metadiscourse devices used in Applied Linguistics is shown in Table 6. The top in rank in terms of frequency of employment are **Transitions**, **Evidentials**, **Code glosses** and **Focus markers** with 18.64%, 15.11%, 13.52% and 13.42%, respectively. Tailing far behind are **Endophoric markers** and **Frame markers** which recorded 5.12% or 213 and 2.96% or 123 frequency, respectively. Similar to the data in Engineering and Business Administration, **Transitions** are employed the most, probably due to the more discursive nature of dissertations in Applied Linguistics. **Transitions** also account for 18.64% of the total Metadiscourse resources in the set of data comprising almost one-fifth of the total number of Metadiscourse resources. Except for two data (as shown in Table 6), all the dissertations contain **Transitions** with the highest frequency among the Interactive Metadiscourse.

The Interactive Markers are shown to have been used almost twice as many as the Interactional Metadiscourse resources reflecting a 68.78% or 2,859 frequency over that of 31.22% or 1,298 Interactional Metadiscourse. This indicates that writers have the primary purpose of communicating information coherently, informatively and persuasively as revealed by the frequent employment of **Transitions**, **Evidentials**, and **Code glosses**.

The pervasive use of **Transitions**, **Code glosses** and **Focus markers** as rhetorical devices reveals that Applied linguists are text-oriented writers who are

Table 6 Summary of Metadiscourse in the Dissertations in Applied Linguistics

Metadiscourse Category	Corpus													
	Code	1	2	3	4	5	6	7	8	9	10	Total	Mean	%
Interactive Metadiscourse														
Transitions	Tr	76	81	81	105	63	79	151	46	54	39	775	77.5	18.64
Evidentials	Ev	48	68	61	75	40	80	152	70	22	12	628	62.8	15.11
Endophoric markers	End	27	25	0	28	6	22	67	6	18	14	213	21.3	5.12
Frame markers	Fm	10	14	6	12	10	15	33	6	11	6	123	12.3	2.96
Code glosses	Cg	61	92	35	35	33	103	126	61	4	12	562	56.2	13.52
Focus markers	Fo	57	92	44	83	38	40	145	34	13	12	558	55.8	13.42
Total												2,859		68.78
Interactional Metadiscourse														
Hedges	He	69	107	76	186	59	67	220	91	33	45	953	95.3	22.93
Boosters	Bo	14	13	7	34	6	23	22	1	10	2	132	13.2	3.18
Attitude markers	Am	20	12	11	16	4	9	17	16	5	19	129	12.9	3.10
Engagement markers	Eng	13	1	13	9	0	5	17	6	2	0	66	6.6	1.59
Self mentions	Sm	2	1	3	1	0	0	7	0	2	2	18	1.8	0.43
Reader markers	Rm	0	0	0	0	0	0	0	0	0	0	0	0	0
Total												1,298		31.22
Over all total no of metadiscourse		397	506	331	590	259	443	957	337	174	163	4,157		
Total no. of words		8,723	13,355	9,421	10,264	6,940	12,375	23,868	5,571	4,169	3,418	98,104		

concerned with how their readers process information and assess their arguments. The following **Code glosses** exemplify how writers in Applied Linguistics facilitate readers' understanding.

- a) These findings mean that peer oral feedback result in the improvement in the compositions of the student writers in content, organization and grammar ...
- b) At the end of the first year in secondary education, they are expected to be able to perform communicative acts such as describing, narrating, classifying, defining ...
- c) This is manifested, for example, in the local meanings of lines 4-7...
- d) Fluency and coherence referred to the learner's ability to talk with normal level of continuity, rate and effort and to link ideas to from ...

The metadiscourse markers mean that and referred to in a) and d)

respectively, guide readers in the interpretation of the findings and in the meaning of terms “*fluency and coherence*”. Such as in b) and *for example* in c) also aid readers in understanding communicative acts and specified extracts from the text being analyzed. Unlike writers in hard sciences, Applied linguists seem to rely more on textual and verbal expositions to clarify statements and present arguments rather than resort to graphic representations of facts to complement textual arguments. This accounts for the lower visibility of **Endophoric markers** and higher frequency of **Code glosses** contrary to the results in the hard disciplines. This could probably have something to do with the writers' expertise in language and abstract concepts in language pedagogy that are highly verbalized.

The use of **Focus markers** also complements **Code glosses** in reinforcing readers' comprehensions. The following examples taken from data in Applied Linguistics illustrate this.

- a) Thus, this study was carried out to determine the effect of this language teaching pedagogy on the learner's language proficiency...
- b) This knowledge of language form will develop learners' grammatical competence.
- c) Other reader based factors that might influence incidental L2 vocabulary acquisition were also examined, particularly L1/L2 background knowledge ...
- d) To the former, it invokes a certain affective association like security protection and fear aggression." The latter is projected as a place unsafe for leisure travels ...

All the underlined expressions *this study*, *this knowledge*, *particularly*, *the former*, *the latter* have what is called the "pointing function" in the text which direct the reader to a particular reference the writer would probably like to emphasize. Given such language expressions, the reader is guided as to what idea to focus on in order to follow the writer's train of thoughts.

The table also reveals that **Hedges** and **Transitions** belong to the top two most commonly employed Metadiscourse markers in the dissertations of Filipino writers in Applied Linguistics. Among the Interactional Metadiscourse, the **Hedges** (22.93) ranks first in terms of frequency, followed by **Boosters** with a frequency of 132 or 3.18%, **Attitude markers** with 129 or 3.10%, **Engagement markers** with 66 frequency or 1.59% and **Self-mentions** with 18 frequency or

0.43%. **Hedges** accounted for 22.93% or a total of 953 which is about one-fourth of the total number of Metadiscourse markers or about eight times more than any of the other sub-categories of Interactional Metadiscourse. Like Biology and Engineering, Applied Linguistics texts did not employ any **Reader marker**. **Self mentions** that are employed include *the researcher*, *the author*, and *the proponent of this study* but never include the first person pronoun “*I*” to refer to the writer. This finding could account for the more formal and impersonal writing style of the writers in Applied Linguistics which are characteristics of an academic discourse. This is also evident in the minimal use of **Engagement markers** to convey assessments of the on-going discourse.

Similar to the results in the above-mentioned disciplines, a great number of **Hedges** speak for the writer’s reluctance to commit to the truth of their claims and give room for doubts. In fact, the use of tentative expressions did not diminish the writer’s projected social stature as expert in his disciplinary field but rather maintained an image of considerate and informed writer. With the employment of hedging devices, it can be said that the writer’s ethos or image is promoted and the textual appeal to pathos is increased resulting in a more persuasive-argumentative text. This complements the increased rational appeal of the text which was achieved by the numerical preponderance of **Transitions**.

Comparing the patterns of Interactive metadiscourse use of Filipino writers in the present study to that of the Chinese writers in Hyland’s (2004, 2005), there

seemed to be great similarity in their linguistic preferences. However, a striking difference can be noted in the employment of the ***Self mentions*** and ***Engagement markers***. There is a remarkably higher use of these metadiscoursal features among the Chinese texts as indicated by their 50% occurrence in relation to the ***Hedges*** as compared to less than eight times occurrence in the Filipino texts in Applied Linguistics. Texts in Applied Linguistics reflect a more well organized but a less engaging one. Metadiscourse use in this discipline suggests a text oriented and a less personal discourse.

Figure 9 and 10 show in graphic presentations the percentage distribution and the linguistic preferences for Metadiscourse use as rhetorical devices in dissertations in Applied Linguistics

Based on Table 6, the frequency of occurrences reveals the following pattern of Interactive Metadiscourse in Applied Linguistics.

1. Transitions
2. Evidentials
3. Code glosses
4. Focus markers
5. Endophoric markers
6. Frame markers

The pattern of Interactional Metadiscourse in Applied Linguistics is as follows:

1. Hedges
2. Boosters
3. Attitude markers
4. Engagement markers
5. Self- mentions
6. Reader markers

Combining the two categories of Metadiscourse, the pattern is as follows:

1. Hedges
2. Transitions
3. Evidentials
4. Code glosses
5. Focus markers
6. Endophoric markers
7. Boosters
8. Attitude markers
9. Frame markers
10. Engagement markers
11. Self- mentions
12. Reader markers

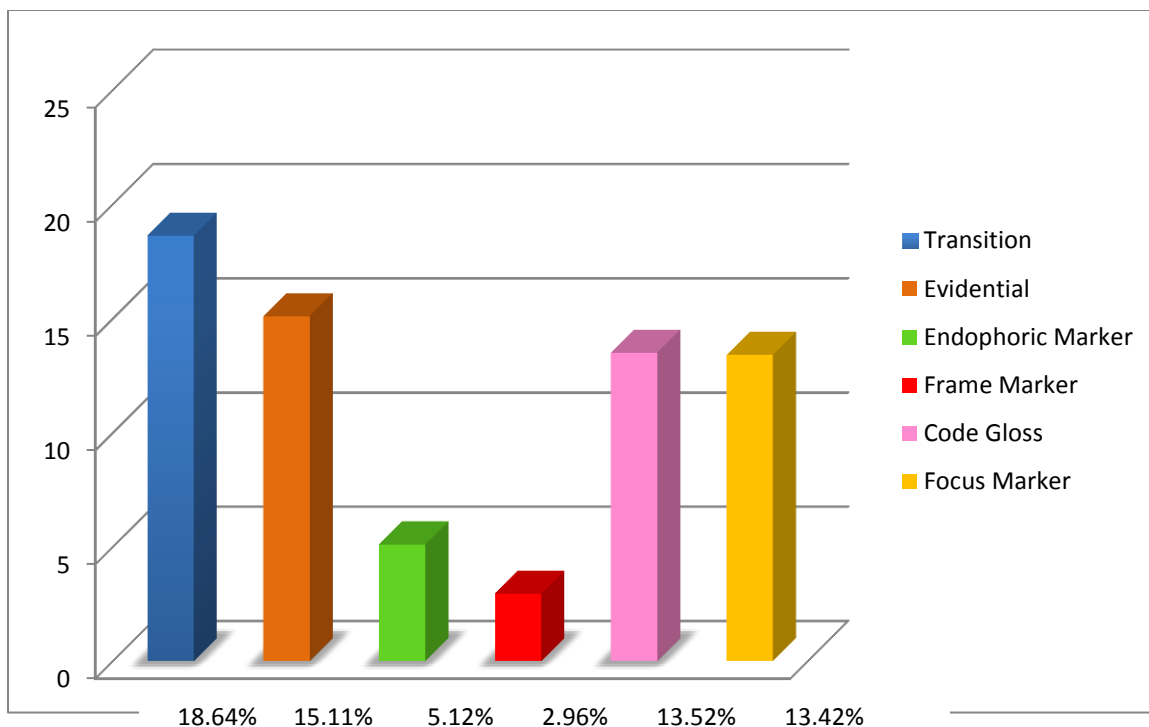


Figure 9 Graphic Presentation of Interactive Metadiscourse in Applied Linguistics

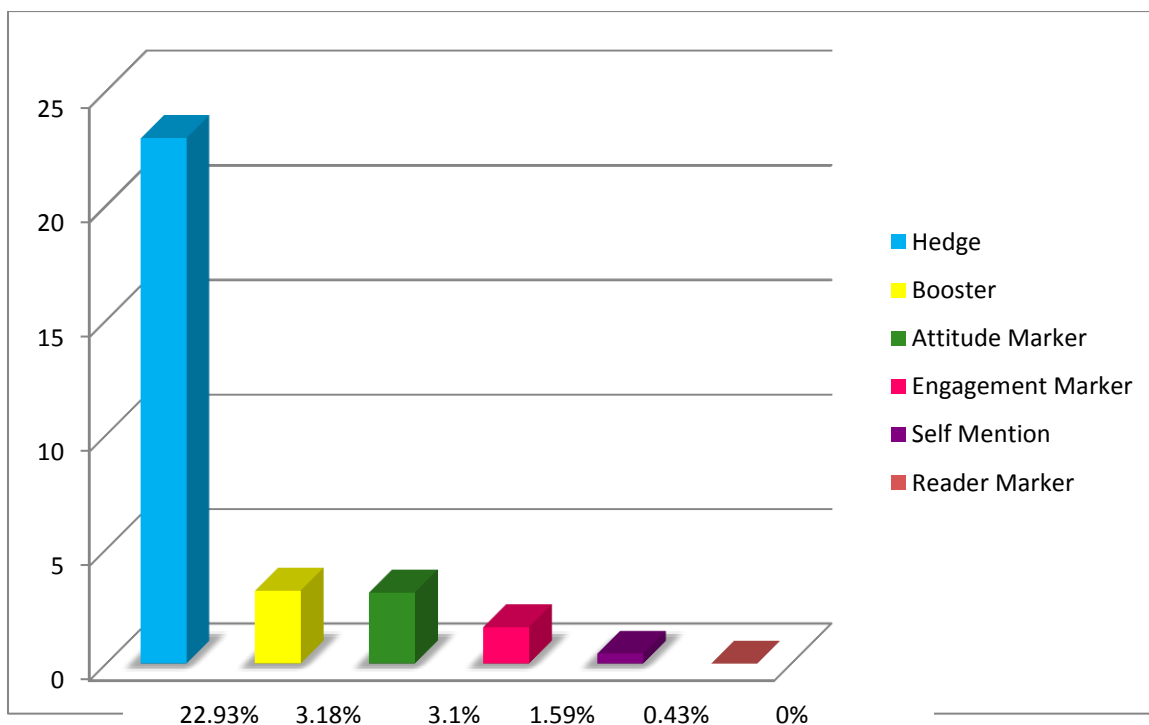


Figure 10. Graphic Presentation of Interactional Metadiscourse in Applied Linguistics

Below is a table showing the patterns of Metadiscourse in the four disciplines.

Table 7

Summary of the Patterns of Metadiscourse use in the four Disciplines.

Rank	Biology	Engineering	Business Administration	Applied Linguistics
<i>Interactive Metadiscourse</i>				
1	Evidentials	Transitions	Transitions	Transitions
2	Transitions	Endophoric markers	Code glosses	Evidentials
3	Endophoric markers	Evidentials	Evidentials	Code glosses
4	Code glosses	Code glosses	Frame markers	Focus markers
5	Focus markers	Focus markers	Endophoric markers	Endophoric markers
6	Frame markers	Frame markers	Focus markers	Frame markers
<i>Interactional Metadiscourse</i>				
1	Hedges	Hedges	Hedges	Hedges
2	Attitude markers	Attitude markers	Engagement markers	Boosters
3	Boosters	Boosters	Attitude markers	Attitude markers
4	Engagement markers	Self mentions	Boosters	Engagement markers
5	Self mentions	Engagement markers	Self mentions, Reader markers	Self mentions
6	Reader markers	Reader markers		Reader markers

From the data indicated in Table 7, it can be noted that **Transitions** and **Hedges** are generally the most commonly employed Metadiscourse in the dissertations across disciplines. The preponderance of **Hedges** and **Transitions** seems to indicate that Filipino writers are wary of diverse positions readers take and are primarily driven by the desire to present an organized and coherent

discourse for effective information dissemination. Both **Transitions** and **Hedges** are rhetorical devices writers from all disciplines employ to reinforce the rational and affective appeals of their texts resulting in an increased persuasiveness and acceptability among readers belonging to the same discourse community. The high preference for **Evidentials** among the data also promotes the writers' credibility and authority in the disciplinary culture as they project profound knowledge as displayed by the numerous citations and large amount of readings. Volumes of information explained, clarified and elaborated with the use of **Code glosses** could have also increased the image of a competent writer. **Focus markers** may have facilitated the comprehension of the text as each has the purpose of leading the readers to the focus of the discourse for emphasis and retrieval of thoughts.

The data also show that **Frame markers** were the least employed among the dissertations investigated with the exception of the data in Business Administration. Though dissertations are longer forms of discourse, it takes a few signposts to label text stages, indicate topic shifts, and announce discourse goals. Besides **Frame markers** indicating text stages and topic shifts could be substituted by mechanical means such as the use of indentions and new paragraphs. Furthermore, directness and brevity of expressions as encouraged in technical writing could have contributed to the minimal use of this metadiscourse category.

While **Hedges** recorded the highest frequency among Interactional Metadiscourse, **Reader markers** and **Self mentions** recorded the lowest frequency. Reader and author visibility appears to be the least concern of the Filipino writers, while the text content receives the highest concern among them. The absence or minimal employment of these discourse markers reveals that Filipino writers' argumentative texts such as dissertations evade writer and reader intrusion into their text in order to project an objective discourse but predominantly use language features that would enhance the coherent link of arguments, establish writer credibility and indicate certain degree of deference to the readers.

4.2. Comparison of Metadiscourse use as Rhetorical Devices across Disciplines

4.2.1. Use of Metadiscourse in Engineering and Biology

Though the use of Metadiscourse is universal in any discipline, there are variations in their use in terms of the amount of Metadiscourse and the categories and subcategories of Metadiscourse devices used. The employment of Metadiscourse resources in Engineering and Biology are compared to look into the similarities and differences of use among Filipino dissertations.

Table 8 below shows the category and subcategory of Interactive Metadiscourse and their frequency and percentage of occurrences in Engineering and Biology.

The figures in the Tables 8 and 9 indicate that both Engineering and Biology employed more Interactive Metadiscourse than Interactional Metadiscourse resources. Interactive Metadiscourse is three times higher than Interactional Metadiscourse in Engineering with 62.17% and 37.83%, respectively. Meanwhile, a bigger difference between the Interactive Metadiscourse and Interactional Metadiscourse is recorded in Biology with a frequency of 72.14% and 27.86%, respectively. A remarkable percentage of Interactive Metadiscourse is **Evidentials** in Biology which revealed that Biologists give prime importance to citations of other works to establish authorial credibility.

Table 8

Summary of the Total Occurrences and Percentage of Interactive Metadiscourse in Biology and Engineering.

Metadiscourse Category	Code	Biology		Engineering	
Interactive Metadiscourse		Total	Percentage	Total	Percentage
1. Transitions	Tr	343	13.85 %	226	15.72 %
2. Evidentials	Ev	466	18.81 %	170	11.82 %
3. Endophoric markers	End	343	13.85 %	212	14.74 %
4. Frame markers	Fm	63	2.54 %	29	2.02 %
5. Code glosses	Cg	338	13.65 %	156	10.85 %
6. Focus markers	Fo	234	9.45 %	101	7.02
Total		1,787	72.14%	894	62.17%

The figures also reveal that the Metadiscourse subcategory **Frame markers** is the least frequently employed Interactive Metadiscourse in both Engineering and Biology having recorded a frequency of 2.54% in Biology and 2.02% in Engineering. The **Focus markers** in Engineering and in Biology ranked second to the least employed Interactive Metadiscourse. The infrequent employment of **Frame markers** could be attributed to the highly structured IMRD format of scientific discourse. Besides the functions of **Frame markers** such as label text stages, indicate topic shifts, and announce discourse goals could be

achieved by other means like paragraph indentions and use of **Transitions** to indicate topic shifts or use of sub-topics to label text stages.

Table 9 below shows the category and subcategory of Interactional Metadiscourse and their frequency of occurrences and percentage of distribution in Engineering and Biology.

Table 9
Summary of the Total Occurrences and Percentage of Interactional Metadiscourse in Biology and Engineering.

Metadiscourse Category	Code	Biology		Engineering	
Interactional Metadiscourse		Total	Percentage	Total	Percentage
1. Hedges	He	529	21.36%	335	23.30%
2. Boosters	Bo	74	2.99%	66	4.59%
3. Attitude markers	Am	87	3.51%	76	5.29%
4.Engagement markers	Eng	0	0 %	32	2.23%
5. Self-mentions	Sm	0	0 %	35	2.43%
6.Reader markers	Rm	0	0 %	0	0 %
Total		690	27.86 %	544	37.83%

The table above shows the subcategory **Hedges** recorded remarkably the highest frequency among the Interactional Metadiscourse in both Engineering and Biology and among the rest of the other Metadiscourse markers showing a frequency of 529 or 21.36% in Biology and 335 or 23.30% in Engineering. The

Hedges comprise about one-fourth of all the Metadiscourse use in all the data in both disciplinary fields. Similarly, **Engagement markers**, **Self-mentions**, and **Reader markers** are the least preferred Interactional linguistic resources showing a frequency of 0% for the three subcategories in Biology and 2.23%, 2.43% and 0%, respectively in Engineering.

Not surprisingly, both Engineering and Biology, two disciplinary fields belonging to the hard sciences showed to have the same pattern of Interactional Metadiscourse use in all the data. With the exception of data 3 in Engineering, all the rest of the dissertations recorded less frequency of **Self-mentions**. On the contrary, all the data in Biology did not record a single **Self-mention** device, thus 0%. It is interesting to note that all data in both disciplines had **Hedges** the highest frequency of use.

Differences in the employment of Metadiscourse devices lie in the employment of Interactive Metadiscourse markers. Among the dissertations in Engineering, **Transitions** showed the highest occurrence and the most preferred Metadiscourse device. Meanwhile, Biology recorded **Evidentials** the highest in rank among Interactive Metadiscourse resources. Of the ten dissertations in Biology, eight, with the exception of data 9 and 10, recorded **Evidentials** to have the highest frequency. On the other hand, five of the ten dissertations in Engineering showed **Transitions** having the highest frequency of occurrence.

4.2.2 Metadiscourse use in Applied Linguistics and Business Administration.

Table 10 shows the summary of Interactive Metadiscourse and Table 11 the Interactional Metadiscourse occurrences in the ten dissertations in Business Administration and Applied Linguistics. The figures in Tables 10 and 11 indicate the writers' rhetorical preferences and higher incidence of Interactive Metadiscourse than Interactional Metadiscourse in both Applied Linguistics and Business Administration. However, just like the above results Interactive Metadiscourse is remarkably higher with 68.78% frequency than Interactional Metadiscourse with 31.22% in Applied Linguistics. Meanwhile, Business Administration recorded 63.58% Interactive and 36.42% Interactional Metadiscourse resources.

The table shows that among interactive resources, **Transitions** are the most frequently employed in both disciplines, followed by **Code glosses** and **Evidentials**. These are the three subcategories of Metadiscourse that are dominantly employed in the dissertations in both disciplines. However, the least employed is **Focus markers** in Business Administration and **Frame markers** in Applied Linguistics.

Table 10 below shows the category and subcategory of Interactive Metadiscourse and their frequency of occurrences in Business Administration and Applied Linguistics.

Table 10

Summary of the Total Occurrences and Percentage of Interactive Metadiscourse in Business Administration and Applied Linguistics.

Metadiscourse Category	Code	Business Administration		Applied Linguistics	
Interactive Metadiscourse		Total	Percentage	Total	Percentage
1. Transitions	Tr	401	16.35 %	775	18.64%
2. Evidentials	Ev	333	13.58 %	628	15.11%
3. Endophoric markers	End	149	6.08 %	213	5.12%
4. Frame markers	Fm	167	6.81 %	123	2.96%
5. Code glosses	Cg	371	15.13 %	562	13.52%
6. Focus markers	Fo	138	5.63%	558	13.42 %
Total		1,559	63.58 %%	2,859	68.78%

Though differences occurred in the amount of the linguistic resources, it is interesting to note that both exhibited similar preferences in the employment of **Hedges** and **Self-mentions**. Both disciplines showed the highest frequency of Interactional Metadiscourse in **Hedges** and the lowest frequency in **Self mentions**, with 22.80% **Hedges** and 0.57% **Self mentions** in Business Administration, and 22.93% **Hedges** and 0.43% in Applied Linguistics. However, no **Reader markers** were recorded in both disciplines. Similarly, both recorded the highest frequency of Interactive Metadiscourse in **Transitions** followed by the **Evidentials** and **Code glosses** and the lowest frequency in **Focus markers**, **Frame markers** and **Endophoric markers**. It seems to appear that both

disciplines give prime importance to the content or the information in the text as evidenced by the predominance of *Transitions*, *Evidentials*, and *Code glosses* rather than direct or lead the readers to the organization of the texts or to other parts of the texts.

Table 11 below shows the category and subcategory of Interactional Metadiscourse and their frequency of occurrences in Business Administration and Applied Linguistics

Table 11

Summary of Total Occurrences and Percentage of Interactional Metadiscourse in Business Administration and Applied Linguistics.

Metadiscourse Category	Code	Business Administration		Applied Linguistics	
Interactional Metadiscourse		Total	Percentage	Total	Percentage
1. Hedges	He	559	22.80%	953	22.93%
2. Boosters	Bo	43	1.75%	132	3.18%
3. Attitude markers	Am	124	5.06%	129	3.10%
4.Engagement markers	Eng	139	5.67%	66	1.59%
5. Self-mentions	Sm	14	0.57%	18	0.43%
6. Reader markers	Rm	14	0.57%	0	0%
Total		893	36.42%	1,298	31.22%

On the other hand, among the interactional resources, **Engagement markers** rank second in Business Administration and **Boosters** in Applied Linguistics. **Engagement markers** in Business Administration such as; *Note that in this model, consider the following issues, never allow people, it should be noted that, etc.* are generally in the form of imperatives and propositional statements with modals which suggest a more informed writer who is in command of his readers who are presumed to concur with him. The minimal use of aside and question as *Engagement markers* in the texts as shown in the following: “ *It doesn’t make sense to have two sets of wires running down the street*” and “*Can it compete with independent power producers...?*” discloses the writer’s attempt to engage with his readers presumably to establish solidarity. Unlike Business Administration, Applied Linguistics employed **Engagement markers** minimally in the texts indicating a more formal and a less engaging text. Also, to a lesser degree Applied Linguists express certainty of their findings with the use of **Boosters**.

4.2.3. Metadiscourse use as rhetorical device across disciplines

The figures in the table below show that all four disciplines, namely: Engineering, Biology, Business Administration and Applied Linguistics recorded higher occurrences of Interactive Metadiscourse than Interactional Metadiscourse with 62.17% Interactive Metadiscourse in Engineering, 72.14% in Biology, 63.58% in Business Administration and 68.78% in Applied Linguistics. Meanwhile, there were 37.83% Interactional Metadiscourse markers in Engineering, 27.86 in Biology, 36.42% in Business Administration and 31.22% in Applied Linguistics. Biology and Applied Linguistics, however, appeared to have the biggest difference in the percentage in their employment of Interactive and Interactional Metadiscourse while Engineering showed the least difference in rhetorical preferences.

It is interesting to note that though Engineering belongs to the hard science, it appears to have the most Interactional Metadiscourse employed in the dissertations. Of the ten dissertations, nine of them employed **Engagement markers** and five used **Self mentions** with two having recorded a quite remarkable frequency. This could probably be the result of the individual writer's linguistic preferences as part of his/her rhetorical strategies in the exercise of freedom sanctioned by the discourse community. Table 12 below shows the over-all percentage of distribution and summary of occurrences of Interactive and Interactional Metadiscourse use in each discipline.

Table 12

Summary of the Total Occurrences and Percentage of Interactive and Interactional Metadiscourse Across Disciplines.

Discipline	Interactive Metadiscourse		Interactional Metadiscourse	
	Total	Percentage	Total	Percentage
Engineering	894	62.17%	544	37.83%
Biology	1,787	72.14%	690	28.33%
Business Administration	1,559	63.58%	893	36.42%
Applied Linguistics	2,859	68.78%	1,298	31.22%

It can be noted that **Transitions** (see Table 13 below) recorded the highest frequency among all the Interactive Metadiscourse markers in all the disciplines with the exception of Biology where **Evidentials** are shown to have the greatest number of occurrences as evidenced by the recorded frequency in the nine dissertations showing **Transitions** to be the first in rank. The data also show that **Transitions** also have the highest visibility in Applied Linguistics with 18.64% occurrence while **Frame markers** have the least visibility among the Interactive Metadiscourse in the majority of the academic writings.

Table 13 shows the summary of the occurrences of all the subcategories of Interactive Metadiscourse across four disciplines.

Table 13

Summary of Total Occurrences and Distribution Percentage of all the Subcategories of Interactive Metadiscourse Across Disciplines.

Metadiscourse Category	Biology		Engineering		Business Administration		Applied Linguistics	
Interactive Metadiscourse	Total	%	Total	%	Total	%	Total	%
Transitions	343	13.85	226	15.72	401	16.35	775	18.64
Evidentials	466	18.81	170	11.82	333	13.58	628	15.11
Endophoric markers	343	13.85	212	14.74	149	6.08	213	5.12
Frame markers	63	2.54	29	2.02	167	6.81	123	2.96
Code glosses	338	13.65	156	10.85	371	15.13	562	13.52
Focus markers	234	9.45	101	7.02	138	5.63	558	13.42

The table above shows *that Transitions, Evidentials* and *Code glosses* appeared to be the top three highly visible Interactive Metadiscourse devices in the dissertations in soft disciplines. This is also shown among dissertations in hard sciences except that *Endophoric markers* were more employed than *Code glosses*. This finding reveals that scientists in the field of Biology and Engineering may have preferred to simplify the presentation of technical concepts in their disciplines with the use of graphic aids, hence the high visibility of *Endophoric markers*. The remarkable presence of these metadiscourse devices in the texts in Biology and Engineering may have been influenced by the

nature of the disciplinary culture. This can also be observed in the soft disciplines in their preference for **Code glosses** over that of **Endophoric markers**. Specialists in the humanities may have opted clarifying concepts in business and language pedagogy through definitions, explanations, illustrations, exemplifications and the like.

Table 14 shows the summary of the occurrences of all the subcategories of Interactional Metadiscourse across disciplines.

Table 14

Summary of Total Occurrences and Percentage of Distribution of all Subcategories of Interactional Metadiscourse Across Disciplines.

Metadiscourse Category	Biology		Engineering		Business Administration		Applied Linguistics	
Interactional Metadiscourse	Total	%	Total	%	Total	%	Total	%
Hedges	529	21.36	335	23.30	559	22.80	953	22.93
Boosters	74	2.99	66	4.59	43	1.75	132	3.18
Attitude markers	87	3.51	76	5.29	124	5.06	129	3.10
Engagement markers	0	0	32	2.23	153	5.67	66	1.59
Self mentions	0	0	35	2.43	14	0.57	18	0.43
Reader markers	0	0	0	0	14	0.57	0	0
Total	690	28.33	544	37.83	893	36.42	1298	31.22

The table above reveals that among all four disciplines, the subcategory **Hedges** is shown to have the highest frequency of occurrence not only among all the interactional Metadiscourse but also among all Metadiscourse resources employed. The subcategory **Hedges** in Biology has 21.36%, Engineering has 23.30% frequency, 22.80% in Business Administration, and 22.93% in Applied Linguistics which accounts for about one-fourth of the total amount of Metadiscourse employed in the dissertations in each discipline

It can be noted that **Transitions** and **Hedges** are evidently high if not the highest in Applied Linguistics indicating that writers in this disciplinary field appear to be one of the most cautious in presenting their claims probably in order to minimize “face-threatening” (Salager-Meyer, 1997) situation in the event contradicting findings arise. Since findings in social sciences such as Applied Linguistics are mostly heterogeneous and tentative due to the very nature of the discipline, writers opt to convey tentativeness with the use of hedging devices.

Unlike those in hard sciences, findings are more precise as supported by statistical figures from experimental results, thus, writers can be bolder and more committed to their claims. It can also be presumed that Applied Linguists use hedges as “politeness strategies” (Myers, 1989 as cited by Salager-Meyer, 1997)) to minimize oppositions and gain communal acceptance from the discourse community. Claims that are expressed with tentativeness to show respect to other members of the community with diverse views are likely to gain

approval. The pervasive use of modal verbs such as *may, might, could, appear, suggest, seem, tend to*, etc. to express doubts; approximators of quantity, and frequency in the forms of *approximately, about, relatively, generally*; adverbial phrases such as *seems probable, appears likely, probably indicate, may appear* and other expressions of hedging to convey uncertainty may have been the writers' "face-saving" rhetorical strategy, an attempt to promote reader acceptance and a means to preserve social ethos.

On the other hand, the high visibility of **Transitions** indicates that dissertation writers are most concerned with the delivery of knowledge that is clearly and coherently organized and readily understood by the assumed readers of the text. The data also show that **Engagement markers**, **Self mentions** and **Reader markers** belong to the lowest three among the Interactional Metadiscourse (as shown in Table 14) with the last two the least frequently employed. This suggests that Filipino writer's identity is less visible in his/her writing in order to foreground the topic of inquiry and to display objectivity. The low visibility of the abovementioned Interactional Metadiscourse markers reinforces the communicative purpose of the writer, that is, to highlight the importance of the message and to subjugate the role of the writer and the reader. After all, the purpose of the texts is to convey new knowledge and information as effectively as possible and this is achieved through the judicious employment of rhetorical strategies such as metadiscourse.

To sum, the most frequently employed Metadiscourse devices in the dissertations among four disciplines are **Hedges** and **Transitions**. With the Interactive category, **Transitions**, **Evidentials** and **Code glosses** remain to occupy the top three most employed in the soft disciplines and **Transitions**, **Endophoric markers** and **Evidentials** in the hard sciences while **Frame markers** remains to be the least employed. On the one hand, **Hedges** show the highest occurrences among all categories and subcategories of Metadiscourse. **Engagement markers**, **Self mentions** and **Reader markers** are revealed to be the least employed Interactional Metadiscourse.

Figures from the table (Table 15) below reveal that both Biology and Engineering have a 1: 20 ratio of Metadiscourse marker and the number of words, which means that for every 20 words there is one Metadiscourse used and for every 100 words there is the same frequency rate of five occurrences for Biology (4.98%) and for Engineering (4.90%). However, in the case of Business Administration and Applied Linguistics, the former has a lower ratio of 1:19 compared to 1:24 ratio of Metadiscourse to the number of words in Applied Linguistics. This means that for every 19 words in Business Administration and 24 words in Applied Linguistics, there is one Metadiscourse marker. Thus, there is a lower rate of frequency of Metadiscourse in Applied Linguistics (4.24%) than in Business Administration (5.39%). The less use of Metadiscourse in Applied Linguistics could probably account for the perception of the imagined readers as informed readers to whom less orientations and explanations are needed. This

could also be explained by the writer's assumption that a great deal of knowledge has been shared between him/her and the audience. The discursiveness of the text and the facility of the language exhibited by the writers in Applied Linguistics could have contributed also to the lower rate of Metadiscourse use.

The table below also shows the summary of frequency rate of metadiscourse per 100 words and the ratio of metadiscourse to the number of words and percentage of agreement. The ratio of metadiscourse to the number of words was taken in order to obtain a global idea of how much metadiscourse is employed by the writers in relation to the number of words.

T able 15

Summary of Frequency Rate and Ratio of Metadiscourse
to the Number of Words

Discipline	Frequency per 100 words	Ratio of Metadiscourse to number of words	Percentage of Agreement
Biology	4.98 or 5	20.10 or 1 : 20	96.18%
Engineering	4.90 or 5	20.42 or 1 : 20	93.79%
Business Administration	5.39 or 5	18.54 or 1 : 19	93.73%
Applied Linguistics	4.24 or 4	23.60 or 1 : 24	96.74%

The higher rate of Metadiscourse markers in Business Administration, Biology, and Engineering could probably be explained by the writers' primary desire to provide information and assist readers in the comprehension of the text, thus, the greater orientation and explanation in the text. Instructions in Research Report and Technical Writing courses in the writing and presentation of research output and the homogeneity of context may have contributed to the lesser number of words but higher rate of Metadiscourse resources used. Research Writing manuals in scientific and technical discourse encourage simplicity and brevity of expression. Furthermore, people coming from the same background with similar interests and with a great amount of shared knowledge may not need much expression for comprehension, hence, also contributed to the brevity of expression.

In the process of analysis, the data also indicate a high percentage of agreement ranging from 93% to 96%. The two to three hours training of coders in the pilot coding and the series of data validation done may have helped the language coders to familiarize themselves with the nature of metadiscourse and the coding scheme, thus a higher percentage of agreement was reached.

Metadiscourse resources were also examined and compared in texts that employ quantitative and qualitative research to determine whether differences occur. The table below shows the distribution of the data across disciplines based on research design.

Table 16

Distribution of Dissertations in terms of Research Design

Discipline	Code	Quantitative	Qualitative	Total
Biology	BIO	8	2	10
Engineering	ENG	10	0	10
Business Administration	BA	6	4	10
Applied Linguistics	AL	4	6	10
Total		28	12	40

Twenty-eight studies, 8 from Biology, 10 from Engineering, 6 from Business Administration and 4 from Applied Linguistics employed the quantitative research design. On the other hand, 12 studies, 2 from Biology, 4 from Business Administration and 6 from Applied Linguistics used the qualitative research design. Majority of the dissertations in Biology and Engineering employed the experimental design except for two data in Biology which dealt with examining the anatomical and morphological characteristics of two plants of horticultural importance. On the other hand, data in the soft sciences employed both qualitative and quantitative research design which includes experimental, correlational and descriptive design.

The Table below shows the amount of metadiscourse in Quantitative research across disciplines which are coded as follows: BIO for Biology, ENG for Engineering, BA for Business Administration and AL for Applied Linguistics.

Table 17

Summary of the Total Amount of Interactive Metadiscourse
in Texts with Quantitative Design

Metadiscourse	Discipline							
Interactive Metadiscourse	Code	BIO	ENG	BA	AL	Total	Mean	%
Transitions	Tr	197	226	225	202	850	8.50	16.9
Evidentials	Ev	341	170	170	144	825	8.25	16.4
Endophoric markers	End	194	212	105	44	555	5.55	11
Frame markers	Fm	29	31	49	33	142	1.42	2.8
Code gloss	Cg	195	157	123	110	585	5.85	11.63
Focus markers		158	102	77	97	434	4.34	8.63
Total						3,391		67.43

The figures on Table 17 show that quantitative researches employed about two- third or 67.43% of Interactive metadiscourse and about one-third or 32.57% Interactional metadiscourse. (See Table 18 below). Of the Interactive metadiscourse, **Transition markers** recorded the highest with 16.9% occurrence, followed closely by **Evidentials** with 16.4%, **Code gloss** with 11.63% and **Endophoric markers** with 11%. The least employed is **Frame markers** with 2.8% followed by **Focus markers** with 8.63%.

These findings appear to duplicate the findings with those in the hard disciplines, Engineering and Biology. This is not surprising because most of the

dissertations in the hard disciplines employed quantitative-experimental design. Also, this affirms the fact that dissertations with quantitative designs deal with factual and quantitative–empirical data which should be presented as informatively and as objectively as it should be. To achieve this necessitates the presence of more Interactive metadiscourse in the form of *Transitions*, *Evidentials*, *Endophoric markers* and *Code glosses*.

Results also reveal that of the Interactional metadiscourse, ***Hedges*** received the highest preference among writers with 22.31% frequency (See Table 18). *Hedges* outnumbered all the rest of the other categories in terms of frequency. The category ***Attitude markers, Boosters, Engagement markers*** and ***Self mentions*** recorded far less visibility with 5.17%, 2.78%, 1.27% and 1.03% occurrences, respectively. ***Reader markers*** are not used in any data with quantitative design. The low visibility of ***Attitude markers, Boosters*** and ***Engagement markers*** in Quantitative research could be explained by the fact that this design was employed by the hard sciences whose discourse is devoid of emotional and personal tone. This could also be observed in the absence of *Reader markers* in any of the data investigated.

Table 18

Summary of the Total Amount of Interactional Metadiscourse
in Texts with Quantitative Design

Metadiscourse	Discipline							
Interactional Metadiscourse	Code	BIO	ENG	BA	AL	Total	Mean	%
Hedges	He	320	335	239	228	1122	11.22	22.31
Boosters	Bo	34	66	21	19	140	14.0	2.78
Attitude markers	Am	66	76	74	44	260	26.0	5.17
Engagement markers	Eng	0	32	24	8	64	6.4	1.27
Self mentions	Sm	0	35	13	4	52	5.2	1.03
Reader markers	Rm	0	0	0	0	0	0	0
Total						1,638		32.57
Over all Total of MD		1,534	1,442	1,120	933	5029		

There is little difference in the text visibility of Interactive and Interactional metadiscourse in data with qualitative research design. Tables 19 and 20 below show that there is a 67.17% and 32.83% visibility of Interactive and Interactional Metadiscourse in qualitative research vis a vis the 67.43% and 32.57% visibility in quantitative research. Employment of Interactive metadiscourse is slightly higher in quantitative research; however, Interactional metadiscourse is also slightly higher in qualitative research.

Table 19

Summary of the Total Amount of Interactive Metadiscourse
in Texts with Qualitative Design

Metadiscourse		Discipline						
Interactive Metadiscourse	Code	BIO	ENG	BA	AL	Total	Mean	%
Transitions	Tr	146	none	176	573	895	89.5	16.43
Evidentials	Ev	122	none	163	484	769	76.9	14.12
Endophoric markers	End	149	none	44	169	362	36.2	6.65
Frame markers	Fm	34	none	98	90	222	22.2	4.07
Code gloss	Cg	143	none	248	452	843	84.3	15.47
Focus markers	Fm	76	none	61	431	568	56.8	10.43
Total							3,659	67.17

There is also similar finding in terms of the highly preferred Interactive and Interactional metadiscourse. **Transitions** and **Hedges** remain to be the most employed metadiscourse devices among the data examined. One significant difference observed, however, is the employment of **Reader markers** in qualitative research which is brought about by the dissertations in Business Administration (See Table 22 below) and the absence of this category in all the disciplines.

Table 20

Summary of the Total Amount of Interactional Metadiscourse
in Texts with Qualitative Design

Metadiscourse		Discipline						
Interactional Metadiscourse	Code	BIO	ENG	BA	AL	Total	Mean	%
Hedges	He	209	none	320	725	1254	12.54	23.02
Boosters	Bo	40	none	22	113	175	17.5	3.2
Attitude markers	Am	21	none	50	85	156	15.6	2.86
Engagement markers	Eng	0	none	116	58	174	17.4	3.19
Self mentions	Sm	0	none	1	14	15	1.5	0.27
Reader markers	Rm	0	none	14	0	14	1.4	0.26
Total							1,788	32.83
Over all Total of MD		940		1,313	3,194	5,447		

Since the field of Biology and Engineering, two disciplines which generally use quantitative research design, deal with inanimate tangible things subjected to experimentation, it is likely that writers feel detached from their work. On the contrary, Applied Linguistics and Business Administration mostly deal with the investigation of animate human beings; hence, it is likely that the writers feel attached to their work, thus explains the presence of the **Reader markers** and an increase in **Engagement markers**.

4.3 Possible factors that may account for the similarities and differences in the use of Metadiscourse resources in the dissertations across disciplines.

From the figures shown in Table 12, it appears that Filipino writers from four disciplines employed more Interactive Metadiscourse devices in their text than Interactional Metadiscourse. This is consistent with the findings of Hyland (2004) where he studied the dissertation writings of Chinese students across six academic disciplines which include Electronics Engineering, Computer Science, Biology, Business Studies, Public Administration and Applied Linguistics. Similarly, ***Hedges*** and ***Transitions*** appear to be by far the most frequently used Metadiscourse devices, followed by ***Evidentials*** and ***Engagement markers***. However, unlike Hyland's study, the result of the present study shows that ***Engagement markers*** is one of the least employed subcategory of Metadiscourse. The findings of the study of Farrokhi and Ashrafi (2009) in research articles run parallel to the study in terms of the prevalence of ***Transitions***, ***Evidentials*** and ***Code glosses***.

The predominance of Interactive Metadiscourse in the dissertations across four disciplines, namely; Biology, Engineering, Business Administration, and Applied Linguistics indicates that Filipino writers are primarily concerned with the organization of the text. Writers are concerned with the presentation of information in a manner that would best guide the imagined readers in the understanding of the text by using ***Transitions*** to indicate relationships of ideas;

Endophoric markers to situate readers to other parts of the text, and in the understanding and clarification of certain concepts and propositions by providing **Code glosses** in the forms of examples, definitions, explanations and the like. This also shows that even if the perceived audience is less diverse as readers, like panel examiners, students and researchers, most probably belong to the same discourse community of similar interests, the writers' linguistic preferences demonstrate that it is important to disambiguate concepts and signpost arguments and propositions in the process of persuasion.

The results also show that of all the Interactive Metadiscourse, it is the subcategory **Transitions** that registers the highest frequency in Engineering, Business Administration and Applied Linguistics excluding Biology which has **Evidentials** as the most visible metadiscourse markers. Some of the **Transitions** used in the data are listed below:

Metadiscourse	Exemplars	Relationship Indicated
Nevertheless	1. <u>Nevertheless</u> , these experimental values are very important in the formation of the models. (Engineering)	Contrast
However	2. It should, <u>however</u> , to be emphasized here that penetration of chloride ions into concrete was driven by.....(Engineering)	Contrast
On the other hand	3. The chloroform fraction, <u>on the other hand</u> , was prioritized owing to its higher value for DPPH inhibitory activity. (Biology)	Contrast

Despite, however	4. <u>Despite, however</u> , the plethora of compliance and ethical guidelines and rules at the regulatory, corporate operations and personal levels, the industry still faces major ethical issues as follows, according to LUTC PTEP (1996). (Business Administration)	Contrast
However	5. <u>However</u> , most of these utilities are not profitable due to high system losses and lack of industrial or big base customers. (Business Administration)	Contrast
On the other hand	6. Human resource management practices, <u>on the other hand</u> , are said to reflect and reinforce organizational culture, and by doing so, may have some influence on the culture-performance relationship. (Business Administration)	Contrast
On the contrary	7. <u>On the contrary</u> , comparison and/ or contrast of Journalism registered the highest rating in organization with a mean of 3.58. (Applied Linguistics)	Contrast
Although	8. Concessive adverbial clause was also used in the genre under study, <u>although</u> it was not as frequent as the other types of the adverbial clause were. (Applied Linguistics)	Contrast
Hence	9. <u>Hence</u> , it was necessary to obtain the appropriate influent concentration before feeding. (Engineering)	Causative
Thus	10. <u>Thus</u> , it is believed that this method enhances language learners' proficiency. (Applied Linguistics)	Causative
In addition	11. <u>In addition</u> , low soil ph is often associated with nutrient deficiencies or calcium or manganese toxicities that reduce the rates of nitrogen fixation. (Biology)	Additive

Furthermore	12. <u>Furthermore</u> , comprehensive analysis of coral associated communities can also offer the advantage of additional insights that may include potentially probiotic constituents of the community (Reshef et.al.,2006; Ritchie,2006). (Biology)	Additive
After	13. <u>After</u> pathogen infection, many signal molecules can be produced by plants including JA, SA and ethylene. (Biology)	Temporal

The **Transitions** *nevertheless, however, although, on the other hand, despite*, and *on the contrary*, indicate that what follows are contrary to the preceding idea. In sentences 9 and 10, the **Transitions** *hence* and *thus* indicate that preceding sentence/s is/are justification/s for obtaining an influent concentration before feeding and for believing that the language learner's proficiency is enhanced by a certain method. Meanwhile, *in addition* and *furthermore* in examples 11 and 12 usher in new additional arguments to reinforce the previously mentioned ones. Lastly, *after* in sentence 13 presents the circumstance that may occur after a particular process which is pathogen infection.

The **Transitions** used are adverbial phrases, and conjunctions, which are classified into contrastive/comparative, additive, causal, and temporal (Halliday and Hasan, 1976). Mohammed and Omer (2000) classified contrastive, causal and temporal as non-additive conjunctions. Contrastive relations indicate contrary to expectations. Additive relations usually relate coordinate elements of,

causal relations suggest the result, effect or reason/s for the existence of certain conditions while temporal refers to sequence in time. (Halliday and Hasan, 1976)

The present study reveals that the Contrastive/Comparative conjunctions were used most often in the dissertations across four disciplines. This was followed by Causal, Additive, and Temporal conjunctions. It can be said that on the basis of the result, the Filipino writers are basically non-additive. Because of the nature of the arguments, that is to provide comparison between the findings of the current work and that of the previous works, the comparative/contrastive conjunctive relations appear to dominate the text. Similarly, analysis of outcomes, interpretation of results as well as tracing the cause or possible reasons for the existence of certain conditions are part of the argumentation. Hence, this explains the high occurrence of causal conjunctions. Signposts such as the contrastive, causative, additive or temporal conjunctions help the readers see the connections of ideas, thus, facilitating easy understanding of the text. The table below shows the summary of total occurrences of the types of conjunctions employed in the dissertations.

Table 21
Summary of Total Occurrences of the Different Types of Conjunctions
Used Across Four Disciplines.

Disciplines	Contrastive/ Comparative	Additive	Causative	Temporal
Engineering	94	38	71	3
Biology	172	59	112	3
Business Administration	170	65	125	18
Applied Linguistics	372	169	235	12

The occurrence of **Endophoric markers** is highly visible in the dissertations in Engineering but less visible in Biology, Business Administration and Applied Linguistics. In fact, this subcategory ranks fourth in Biology and Applied Linguistics and fifth in Business Administration. The high visibility of **Endophoric markers** in Engineering is an off shoot of the frequent reference to tables and figures showing drawings, pictures or maps, graphs, diagrams, and examples to support arguments in the text. Such use of Metadiscourse devices aids perceived readers to quickly grasp information, understand explanations, and acquire an instant overview of results. The infrequent occurrence of this subcategory points out to the writers' less reliance on graphic aids to present arguments, as arguments, unlike in Engineering, can be best clearly and coherently presented with the employment of **Transitions** and **Code glosses**.

Since the field of Engineering contains concepts often technical in nature, writers presumably believe that successful communication can partially be achieved by a visual concretization of facts which may be guaranteed by the employment of graphs, tables, maps, drawings, pictures and the like. Examples of **Endophoric markers** in Engineering are given below:

Metadiscourse	Exemplars
Table 7 shows	1. <u>Table 7 shows</u> the experimental runs operated by Design-Expert and the responses (% Pb extraction).
(Figures 5.2 – 5.6	2. The first five plots (<u>Figures 5.2 – 5.6</u>) show the boiling point of the mixtures at different salt concentration while the last three shown in Figures 5.7 – 5.9 are graphs of the boiling points of the different types of salts.
Are listed in Table 1.2	3. The factors affecting chloride ingress in marine concrete <u>are listed in Table 1.2.</u>
As shown in Figure 4.4	4. On the third week of performance, the lowest and the highest pH values within the ABFR were 6.1 and 6.8 respectively, <u>as shown in Figure 4.4.</u>
Figure 4.14	5. <u>Figure 4.14 shows</u> color removal of about 80% can be attained after 25 cycles using a carbonate content of 4,500 mg/L and influent COD of 2,000 mg/L.
Is presented in Appendix C	6. The detailed calculation for the computation and regression of the constants <u>is presented in Appendix C.</u>

Examples above such as numbers 4,5 and 6 generally refer to figures or numbers that support arguments, explanations which are better understood with the help of the graphic aid. Example number 2 presents graphs to show the boiling points of mixtures while example number 3 provides a listing of the

factors affecting chloride ingress. These graphic aids present a holistic understanding of the information.

The preponderance of ***Transitions*** and ***Endophoric markers*** in the dissertation writing in Engineering suggests the writers' awareness of the readers and the emphasis given to the presentation of the arguments and propositions that are logical, explicit and persuasive. The writers presumably believe that the examiners and the readers, though, are specialists or experts in the same field where they assert to belong, need to be properly guided as to the organization of the text and to the reference to graphic aids supporting assertions, thus, increasing the understanding and the persuasiveness of the text. Consequently, this also adds to the acceptability of the dissertation.

Since the technical and scientific writing contains numerous graphic aids such as tables, graphs, flow charts, drawing, pictures, maps, etc., ***Endophoric markers*** are constantly employed to help readers navigate the text and to clarify and simplify results and findings. The use of graphic aids also helps the readers to take a closer look at the details and take a wider view or perspective of the data being presented.

Another important Interactive Metadiscourse marker is the ***Evidentials***. This linguistic device appears to be the most frequently employed in the dissertations in Biology, the second most frequently used in Business Administration and Applied Linguistics, and the third in Engineering. ***Evidentials***

demonstrate the intertextuality of texts and is exemplified by the numerous citations in the dissertations in Biology.

Hard discipline, such as Biology, tends to use more extensively this Metadiscourse device to show relatedness of the research with other works in the field; thereby, foregrounding the novelty of the current research and its significant contributions to the already existing repository of knowledge. It is assumed that Filipino Biologists may have realized the need to cite other works in order to build and support arguments and to display a profound knowledge on the current work in order to establish integrity and credibility among a host of scientists or specialists pursuing the same interests. It cannot be ignored that the presence of numerous citations demonstrates the writer's amount of readings done in the disciplinary field which adds to the persuasiveness of the text. For example, the following **Evidentials** in Biology will exemplify this:

Metadiscourse	Exemplars	Type of Citation
(Graham et.al., 1994; Glenn et.al., 1999)	1. The physiological and genetic basis for acid tolerance in Rhizobia is not fully understood (<u>Graham et.al.,1994; Glenn et.al., 1999</u>).	Non-integral citation
(Kang et.al., 2005)	2. Most common viral mechanisms appear to target virus replication or movement (<u>Kang et.al., 2005</u>).	Non- integral citation
(Adams, 1991; Marra et.al, 1998; Rudd, 2003; Scheetz et.al., 2004)	3. ESTs are valuable resources for gene-based physical map, construction, genome,	Non-integral integral

	annotation, and corporative genomics (Adams, 1991; Marra et.al., 1998; Rudd, 2003; Scheetz et.al., 2004)	
Markham (1982) suggested that	4. <u>Markham (1982) suggested that</u> reagents are usually added to the sample solution and observed for resultant shifts in the absorption peaks.	Integral citation
Cubo and co-authors (1988) investigated	5. <u>Cubo and co-authors (1988) investigated</u> melanin production in other <i>Rhizobium</i> species and found out that melanin was present among the strains of <i>Rhizobium leguminosarum biovars</i> ...	Integral citation
Glen and Dilworth (1994) proposed that	6. <u>Glen and Dilworth (1994) proposed that</u> root nodule bacteria as well as other bacteria may have some form of sensing mechanism which enables cell to respond to acidic environment.	Integral citation

Numbers 1, 2 and 3 are examples of non-integral citations while numbers 4, 5 and 6 are examples of integral citations. In integral citation, authors are placed in subject position, thus gain thematic prominence while in non-integral citation, authors of previous studies are not foregrounded and are not given textual prominence. The results show that even if dissertations in Biology have

high frequency of references to previous work, the references do not give textual prominence to the authors. This is also true to Engineering, Business Administration, and Applied Linguistics. Table 22 shows the frequency of the two types of citations and their percentage of occurrence.

Table 22
Summary of Occurrences of the Two Types of Citations and their
Percentage of Distribution

	Biology		Engineering		Business Administration		Applied Linguistics	
	Total	%	Total	%	Total	%	Total	%
Non-integral citation	360	77.08	122	78.70	258	76.10	311	51.15
Integral citation	107	22.91	33	21.29	81	23.89	297	48.85
Over-Total	467		155		339		608	

The analysis of **Evidentials** interestingly shows that Engineering, the discipline which employs the least number of citations (155), has the most number of non-integral citations (122 or 78.70%) while Applied Linguistics has the highest integral citation (297 or 48.85%) and the least non-integral citation (311 or 51.15%). It can be noted that Engineering downplays the prominence of the source of information but foregrounds the object of inquiry through the use of non-integral citations. This indicates that the writers in Engineering take the source of information as subservient to the information itself. It was the

dissertation writers in Applied Linguistics who gave more prominence to the authors of other works by using integral citations.

The next most commonly used Interactive Metadiscourse is **Code glosses**. **Code glosses** serve to clarify concepts, define terminologies, provide explanations or give illustrations or exemplifications. **Code glosses** are quite visible in Biology, Applied Linguistics and Business Administration but poorly visible in Engineering. It is interesting to note that although Engineering is a discipline where technical and scientific concepts abound, there is very little employment of this subcategory. Clarity of arguments probably appears to be compensated by the use of **Endophoric markers**. **Code glosses** are important in Biology, Business Administration and Applied Linguistics because these are commonly employed to satisfy the readers' need for understanding certain concepts. For example in Business Administration, the following Code glosses are used:

Metadiscourse	Exemplars	Purpose
Pertains to, Such as	1. The sub-classification <u>pertains</u> to the policies covering risks to which property may be exposed (Campos, 1983) <u>such as</u> ship-sinking, fire, typhoon, and theft.	Delimits the meaning of sub-classification to clarify the concept Presents examples of risks
Which meant	2. However, declines were noted in policy count as of 1995, <u>which meant</u> , although fewer policies were being sold, they were of higher premiums, since the premium base was	Presents an interpretation of circumstances to facilitate comprehension

	increasing.	
Such as	3. Companies invest in variety of real assets. This includes tangible assets <u>such as</u> plant and machinery and intangible assets <u>such as</u> management contracts and patents (Brealy and Myers, 2003).	Presents examples of tangible and intangible assets to clarify meaning
Means, Refers to	4. Distribution <u>means</u> the wires within a franchise that delivered power to a consumer. Supply <u>refers to</u> the relationship between power supplier and power consumer.	Provides a definition of <i>distribution</i> and <i>supply</i> to clarify meaning
For instance	5. <u>For instance</u> , 45% of total respondent firms with outlets of 100 and below have at least 10% of their outlets franchised.	Illustrates an example to facilitate understanding
That is,	6. In other (Supangco, 2001), the effect on organizational performance is felt more keenly when HR activities are fully strategic, <u>that is</u> , HR is involved in both strategy formulation and implementation	Clarifies the expression <i>fully strategic</i> to refer to HR activities

In the above examples, expressions such as *for instance*, *which meant*, *means*, *such as*, *pertains to*, *that is* and *refers to* are followed up by explanations, examples, definitions and clarifications of propositions. **Code glosses** such as *pertains to*, *means*, and *refers to* in sentences 1 and 4 provide definitions of sub-classification, distribution, and supply. Sentence 2 provides an interpretation of policy count decline. Meanwhile, *such as* in sentences 1 and 3, *for instance* in

sentence 5, and *that is* in sentence 6 aim to narrow down the reader's understanding and clarify concepts by citing specific examples. This is also evident in the dissertations in Biology such as:

Metadiscourse	Exemplars	Purpose
Called a tropical disease affecting <u><i>Porites Goniastera minuta</i></u> and <u><i>Favia stelligera species</i></u> of corals	1. In the Philippines, a recently described coral disease <u>called <i>Porites Ulcerative White Syndrome (PUWS)</i>, is a tropical disease affecting <i>Porites Goniastera minuta</i> and <i>Favia stelligera species</i> of corals</u> (Raymundo et.al, 2003).	Provides a definition or description for understanding a technical concept
e.g. (for example)	2. Complete synthesis may also require cooperation of another plant tissue where chemical modification takes place, <u>e.g.</u> demethylation for tobacco plants normicotine	Presents an example of chemical modification to clarify meaning
Such as	3. As one of the threats affecting coral reefs, coral disease may interact with other factors <u>such as</u> bleaching, destructive fishing practices, coastal developments, mariculture, sedimentation and eutrophication (Loya, 2004).	Presents examples of other factors to reinforce understanding
i.e. (that is)	4. Strain RG-33 had unique phenotypic and genotypic characters, <u>i.e.</u> , it can tolerate high NaCl (up to 4% % NaCl) concentrations and high temperature (42 ° C) and it was the only strain that exhibited restriction pattern C in the restriction enzyme	Provides an explanation of what phenotypic and genotypic characters are

	analyses (Figure 6).	
Are a large group of ubiquitous polyphenols (with 3-ring basic skeleton) (e.g. tea, wine, species, vegetables, pulses, grains, fruits)	5. Flavonoids <u>are large group of ubiquitous plant polyphenols (with 3-ring basic skeleton)</u> responsible for the flavor and color in plant food and beverage (<u>e.g. tea, wine, species, vegetables, pulses, grains, fruits</u>).	Provides a definition of flavonoids Specifies plant polyphenols Presents examples of beverage
Are a group of compounds with the heterocyclic ring structure of benzo (c) pyridine.	6. <u>Isoquinolines are a group of compounds with the heterocyclic ring structure of benzo (c) pyridine.</u>	Provides a definition of isoquinolines

Sentences 1, 5 and 6 provide definitions of scientific terms *Porites Ulcerative Syndrome* (PUWS), flavonoids, and isoquinolines for the reader to understand what may be considered by the writer as unfamiliar terminologies. In these examples, it can be inferred that the writers make assessment of what the readers already know and what they may not know. Sentences 2 and 5 present examples of chemical modification and beverages, while sentence 3 enumerates other factors, and sentence 4 clarifies the phenotypic and genotypic characters of RG-33. Similar to the above-mentioned examples, the **Code glosses** such as, *which meant, means, refers to* and *for instance* help readers recover meanings intended by the writer by providing definitions, explanations, and examples.

The third widely used Interactive Metadiscourse in Biology is the **Code Gloss**. Due to the inevitable usage of scientific and technical terminologies or concepts in this field, the writers feel the need to elaborate or explain, amplify, and exemplify or illustrate some of the concepts mentioned in the dissertations even if the perceived readers are mostly in the academe pursuing the same field of interest. This indicates the writers' sensitivity to the audience's or readers' need to be clarified of some technical or scientific concepts or terminologies.

Sensitivity to the readers' processing of information can also be gleaned from the employment of the **Focus markers** which direct the attention of the readers to particular topics or concepts which the writer probably assumes to be of importance or to be of help in the recovery of meanings. These discourse markers give emphasis and explicitness to certain ideas in the text. The examples below taken from the texts would exemplify this.

Metadiscourse	Exemplars	Function
here	1. It should, however, be emphasized <u>here</u> that penetration of chloride ions into concrete was driven by an electrical potential which is totally different from field conditions. (Engineering)	Focus reader's attention to the discourse
here	2. The time of startup considered <u>here</u> was the time required for the reactor to achieve steady COD removal with only hydrolyzed starch as feed. (Engineering)	Directs focus on the discourse

in particular	3. To date, there has not been developed an effective technology to treat textile dye effluent, <u>in particular</u> , a technological solution which is low in cost and simple to operate. (Engineering)	Gives focus to an effective, low cost technology to treat textile dye effluent
In this view	4. <u>In this view</u> , vocabulary knowledge plays a significant role in L2 reading comprehension in the same way that L2 reading paves opportunities for L2 readers to acquire unfamiliar words. (Applied Linguistics)	Refers reader to a particular view or perception
In this case	5. <u>In this case</u> , a wide range of values for the mentioned parameter was tested to estimate the most suitable value. (Engineering)	Focus reader's attention to a particular instance
Such a result	6. <u>Such a</u> result was to be expected given the high degree of variability among microbial communities associated with different coral species (Pantor et.al., 2003; Rohwer et.al., 2001; Rohwer et.al, 2002). (Biology)	Gives emphasis to a particular result mentioned earlier in the text
in this dissertation	7. The plant of interest <u>in this dissertation</u> is <u>Annona squamosa Linn.</u> (Biology)	Gives focus to the text itself
the latter	8. Between <u>A. muricata</u> or wild sour soup and <u>A. cherimoja</u> , <u>the latter</u> species is less tolerant to high temperature. (Biology)	Directs the reader to refer to the last item in the enumeration
in this study	9. Results <u>in this study</u> show both simulation and inhibition of MDR activity at certain drug concentrations suggesting biphasic reactors which can be called cooperative stimulation and competitive inhibition (Litman, et.al., 1997), <u>respectively</u> .	Refers to the topic of the discourse Directs reader to the items enumerated prior to respectively
respectively		

Sentences 1, 2, 7 and 9 contain metadiscursive features (such as, It should, however, be emphasized here, the time of startup considered here, the plant of interest in this dissertation and results in this study) directing the reader to focus on the discourse or the text. The linguistic feature *here* in sentences 1 and 2 is a deictic expression that presents to the reader a point of reference in the discussion in the text.

- 1) It should, however, be emphasized here that penetration of chlorine ions into concrete was driven by an electrical potential....
- 2) The time of startup considered here was the time required for the reactor to achieve COD removal...

Similarly, the demonstrative *this* in sentences 7 and 9 restricts or limits the frame of reference, that is the current text itself.

- 7) The plant of interest in this dissertation is *Annona squamosa* Linn.
- 9) Results in this study show both simulation and inhibition of MDR activity at certain drug concentrations...

Sentences 3, 4, 5, 6 and 8 contain the metadiscourse devices (e.g. in particular, a technological solution, in this view, in this case, such as result, the latter and respectively) which lead the reader to a particular reference in the text.

- 3) To date, there has not been developed an effective technology to treat textile dye effluent, in particular, a technological solution...
- 4) In this view, vocabulary knowledge plays a significant role in L2 reading comprehension...
- 5) In this case, a wide range of values for the mentioned parameter was tested to estimate...

- 6) Such a result was to be expected given the high degree of variability among microbial communities...

The **Focus marker** *in particular* in sentence 3 refers to a specific effective technology to treat textile dye effluent which is a technological solution that is inexpensive and easy to operate. This also limits the reference from a wide array of technology. *In this view* in sentence 4 directs the reader to a frame of mind currently being discussed. Similarly, *in this case* in sentence 5 refers to the circumstance or instance currently being discussed in the text. Also, *such a result* in sentence 6 directs the reader to refer to a preceding discussion which presents the result of the current discourse.

The **Focus marker** *the latter* in sentence 8 below refers to the immediate reference of the discourse which is A. cherimoja, the second species in a series of two while *respectively* in sentence 9 refers to the order of presentation in a series of two.

- 7) Between A. muricata or wild sour soup and A. cherimoja, the latter species is less tolerant...
- 8) Results in this study... suggesting biphasic reactors which can be called cooperative simulation and competitive inhibition.

Discourse markers discussed above such as the following: *here, such, in particular, in this case, in this view, the latter, in this study, in this dissertation* and *respectively* are linguistic expressions that function to direct readers to focus attention either on the discourse itself, on particular topics in the text or on enumerated items in the text. These expressions provide a more explicit

reference to the evolving text and thus facilitate better comprehension. The use of these Metadiscourse features is an indication of the writer's desire for explicitness of reference and clarity of expressions.

Lastly, the least number of Interactive Metadiscourse in the four disciplines is the **Frame markers**. According to Hyland (2005) the **Frame markers** function to signal text boundaries, label text stages, announce discourse goals, and shift arguments. In the analysis of dissertations, the most common function is to signal text boundaries. The length of the discourse necessitates the signaling of boundaries from time to time to guide the reader in his text navigation, thus explains the predominant function of **Frame markers**. In Business Administration, it is generally employed to provide listings. The familiarity of the research report format could probably account for the least use of **Frame markers** by the writers.

On the other hand, there is a high visibility of **Hedges** among all dissertations across disciplines. The high incidence of **Hedges** can be explained by the writers' awareness to present claims with deference to the beliefs of the discourse community to which they assert to belong and with appropriate caution as to how they evaluate their assertions to mitigate potential inimical reactions or negative responses.

According to Highland (1998), the use of **Hedges** "reflects the importance of distinguishing fact from opinion in academic writing and the need for writers to

evaluate their assertions in ways that are likely to be persuasive to their peers ...”

The use of hedging in the Introduction convinces the readers to believe that there is still to be done in the area of investigation (Salager-Meyer, 1997), that is, “Establishing the Niche” (to use Swales’ (1990) terminology. However, in the Discussion section, **Hedges** function to convey tentativeness and uncertainty to avoid or reduce risks of opposition and minimize embarrassing situation in the event that contradicting results arise. (Salager-Meyer, 1997). The following **Hedges** convey varying degrees of uncertainty and tentativeness (Thomas, 1994):

Metadiscourse	Exemplars	What it indicates
It is quite clear	1. <u>It is quite clear</u> that in acid tolerant rhizobial cells, as well as other tolerant bacteria, there acid shock proteins that when expressed will be responsible for their survival in acidic conditions. (Biology)	Expresses lower degree of certainty, downtones certainty
Is possibly linked to	2. The mere presence of more sulfur-metal complexes in young leaves <u>is possibly linked to</u> higher rates of photosynthesis, as reflected by higher chlorophyll content in young leaves. (Biology)	Indicates lesser degree of certainty and tentativeness
May be attributed to	3. The observed in the system pressure, while the reservoir temperature remains constant, <u>may be attributed to</u> the inefficiency of condensation. (Engineering)	Expresses the notion of possibility of an alternative reason/factor for a particular result

Was possibly related to Probably caused by	4. The inhibition <u>was possibly related</u> to the dye itself or <u>probably caused by</u> the accumulating intermediate products formed. (Engineering)	Conveys lower level of certainty Expresses a greater degree of possibility
It seems plausible	5. Therefore, <u>it seems plausible</u> to expect higher cost connected to the production of services as it requires high investments in financial and payment system technology such a software and telecommunications, and human capital and ride on the joint production of bank services. (Business Administration)	Conveys possibility and tentativeness
Indicates that, Tends to ^o	6. The survey also <u>indicates that</u> regardless of asset size, franchisors <u>tend to</u> have more than half of their outlets franchised out rather than company-owned. (Business Administration)	suggests expresses greater possibility
Might have led to	7. The disparity of task objectives <u>might have led to</u> the weak relationship between IVA and prior L2 reading proficiency. (Applied Linguistics)	Conveys least degree of certainty; indicates greater degree of tentativeness
Probably	8. Nevertheless, the significant changes in ($\Delta\Psi m$) until 48h, most <u>probably</u> explains growth inhibition and loss of cell viability which eventually led to apoptosis. (Biology)	Expresses greater degree of possibility

The high presence of **Hedges** in the dissertations across disciplines reveals the writers' exercise of caution to mitigate possible oppositions from any member of the disciplinary community.

On the other hand, the low frequency of **Attitude markers, Self-mentions, Engagement markers** suggests that Filipino writers across disciplines practice objectivity and detachment in academic writing where personal opinions and assertions with emotional tone have no place in scientific and technical writing. In the dissertations in Biology, there was no mention of **Self mentions, Reader markers** and **Engagement markers**. However, though Engineering belongs to the hard science quite a number of **Self mentions** and **Engagement markers** are recorded. Of the ten data, five of them were found to have recorded **Self-mentions**, and two of the five recorded quite a number of them. The **Self-mentions** recorded to have been frequently employed are the “**we**” (first person plural), and “**us**” and very seldom “**the researcher**”, “**I**”, “**me**”, and “**the author**”. It can be noted that there is a noticeable wide variability in the preference for **Self-mention** devices. One data with one author made considerable use of the first person pronoun plural “**we**”. Of the 20 occurrences of “**we**” 17 were used as **Self-mentions** and thrice it was used as **Engagement markers**. These are the following:

Metadiscourse	Examples	Reference
<i>We will see that</i>	<u>1. We will see that</u> this behavior is consistent with the observed temperature progressions of the bed...	Reader
<i>If we analyze</i>	<u>2. If we analyze</u> equation 5-13 for the effect of $Q'V$, ...	Reader
<i>We will see that</i>	<u>3. We will see that</u> this behavior is consistent with observed temperature progressions of the bed...	Reader

All the rest are ***Self-mentions***

Metadiscourse	Exemplars	Reference
<i>We note that</i>	<u>1. We note that</u> the system pressure rises as the bed heats up and drops as the bed cools down returning to almost its initial value.	Writer
<i>We note that</i>	<u>2. We note that</u> the readings shift from negative to positive when temperatures exceed the glass cover temperature.	Writer
<i>We get</i>	3. Multiplying the heat flux sensor readings in volts by the sensor's sensitivity, <u>we get</u> the measured heat loss flux through the glass plate in W/m^2 .	Writer
<i>We denote</i>	4. The difference in the measured useful heat absorbed by the collector plate which <u>we denote</u> as Q_u .	Writer
<i>We see that</i>	<u>5. We see that</u> there is reasonably good argument between calculated and measured Q_u .	Writer

<i>Enabling us</i>	6. The radiation component of Q_u is estimated in Appendix K, enabling <u>us</u> to apply the corrector $F_{rad} = 2.5813$ to the overall heat loss coefficient given by Klien (Equation 3-6)	Writer
<i>In our investigation</i>	7. <u>In our investigation</u> of the solubility of B-carotene,	Writer
<i>I employed</i>	8. <u>I employed</u> a combination of static-dynamic methods (Appendix B)	Writer
<i>I was able to</i>	9. <u>I was able to</u> complete the densities at different conditions of interest.	Writer
<i>I made use of</i>	10. After carefully studying the effects, <u>I made use of</u> the reduced temperature and reduced density as the operation parameters.	Writer
<i>Guided me well</i>	11. The theory of corresponding states <u>guided me</u> well to conduct the first series of experiments at the same time reduced pressures and temperatures.	Writer
<i>The researcher</i>	12. Upon plotting the results of the solubility as a function of pressure from each isotherm, <u>the researcher</u> cannot establish clear patterns...	Writer
<i>The author</i>	13. <u>The author</u> wishes to emphasize that coupling the static method with the dynamics meets the requirements of saturation (static method) and high solvent loading (dynamic method).	Writer
<i>To the best of our knowledge</i>	14. <u>To the best of our knowledge</u> , no dynamics identification method is able to identify the full dynamics model of a humanoid.	Writer

In Business Administration, **Engagement markers** recorded quite a number with 6.61% frequency and very few **Self mentions**. Some of the **Self-Mentions** used include:

Metadiscourse	Exemplars	Reference
<i>We note</i>	<u>1. We note</u> that most of the variations in the various series are in the lower scales 1 and 2 combined...	Writer
<i>We expected that</i>	<u>2. We expected that</u> sorting pre-ranking betas from lowest to highest, would have yielded the same increasing order in portfolio betas for the testing period.	Writer
<i>Our results</i>	<u>3. Our results</u> likewise cannot confirm their observation since the range of betas obtained does not consistently increase or decrease with the return interval or wavelet scale	Writer
<i>We have used</i>	4. Comparing with this, or however, is rather limited as <u>we have used</u> portfolio instead of assets.	Writer
<i>We refer to</i>	5. Thus, <u>we refer to</u> the portfolio as low- or high beta regardless of the magnitudes of the post ranking betas.	Writer

The use of the expressions such as “*the researcher, the author, the proponent of this study*” to refer to the writer suggests distance and detachment from the work. This is exemplified in the examples below.

Metadiscourse	Exemplars	Reference
<i>The author</i>	1. <u>The author</u> evaluated the entries in Table 15, specifically the ratings of the agency, training and compliance respondents. (Business Administration)	Writer
<i>The researcher</i>	2. In order to achieve a more conclusive interpretation and come up with more predictive behavior, <u>the researcher</u> made use of reduced temperature density as the paired parameters in the theory for corresponding states principle. (Engineering)	Writer
<i>The proponent of this research</i>	3. <u>The proponent of this research</u> together with two cost management specialists from the CMO conducted a research on the different accounting models that include the non-financial aspect in capital investing projects and come up with the proposal of the alternative model called the Project Prioritization Model (PPM) using as tool to the Analytic Hierarchy Process (AHP). Business Administration)	Writer
<i>The researcher</i>	4. Taking after Ford (1993), <u>the researcher</u> concluded that adverbial clauses found in then RAs in linguistics, mathematics and science prepared by Filipino writers may be classified as temporal, conditional, causal and concessive. (Applied Linguistics).	Writer

In Applied Linguistics, the expression “*the researcher*” was used 18 times while Business Administration used “ *the author*” and “ *the proponent of this*

research” once each. Most of the **Self mentions** employed in Business Administration are first person pronouns like “we” and “our”. It can be noted that even if there is a single researcher in the dissertation in Business Administration and Engineering, the use of the first person plural pronoun “we” is highly visible. This can probably be explained by the desire of the writers to engage with the readers and at the same time project objectivity, formality, and impartiality by evading the use of the first person singular pronoun “I”.

Table 14 shows that both Engineering and Business Administration recorded the highest frequency of **Engagement markers** and **Self mentions**, with **Engagement markers** (6.61%) highest in Business Administration and **Self mentions** (2.62%) in Engineering. Surprisingly though, Engineering manifests a high degree of employment for this interactional subcategory. This finding indicates that authorial presence is highly felt in these two disciplines while least writer visibility is observed in Applied Linguistics and Biology. **Engagement markers** in Business Administration take the form mostly of directives or imperative statements, and the use of modals. The statements below exemplify **Engagement markers** in Business Administration:

Metadiscourse	Exemplars	Form/function
Note that in this model	1. <u>Note that in this model</u> , the two variable services escape and social responsibility are removed.	Imperative Directs the reader to take a closer look at details in the model

Consider the following	2. <u>Consider the following issues</u> such as division of responsibility, scheduling issues and concerns regarding potential impediments, and communication styles and preferences.	Imperative Suggests to the reader to consider some issues mentioned
Do not easily fall	3. <u>Do not easily fall</u> into the trap of writing an SLA that is too vague to have meaning to users.	Imperative Cautions the reader
Never allow	4. <u>Never allow</u> people to negotiate terms who will materially benefit from the transaction.	Imperative Cautions the reader
It should be noted that	5. <u>It should be noted that</u> service delivery happens during the interaction customers and customer-contact employees, and thus employees' attitudes and behaviors towards customers determine customers' perceived service quality, satisfaction, and performance (Bowen & Schneider, 1985; Pfeffer, 1994; Voon, Seo & Yoon, 2001 as cited in Voon, Seo, & Yoon, 2004). (Business Administration	Statement with modal Directs the reader to take note of something
Must be	6. The benchmarks, targets and metrics <u>must be</u> specified in the SLA	Statement with modal Directs the reader to a course of action which the writer assumes the reader would concur
Can it compete with independent power producers who will try to get its	7. The opening up of power supply to all newcomers possesses an enormous challenge to VECO. <u>Can it</u>	Rhetorical question

customers to switch suppliers?	<u>compete with independent power producers who will try to get its customers to switch suppliers?</u>	
(it doesn't make sense to have two sets of wires running down the street).	8. RA 9136 which was approved in 2001 make generation and distribution supply areas for competition, while leaving transmission and distribution wires regulated because they are natural monopolies <u>(it doesn't make sense to have two sets of wires running down the street).</u>	Aside Gives a comment

In the above examples, the imperatives function either to direct the readers to consider certain course of actions which the writer assumes the reader would concur or to caution the reader against a course of action. The writer also asserts his presence with the use of asides and rhetorical questions.

The last subcategory of Interactional Metadiscourse, the **Reader markers**, which is subsumed under the subcategory **Engagement markers** in Hyland's model, is present only in the two data in Business Administration and is absent in all the other disciplines. In this study, this is considered a separate category to determine the employment of discourse markers that refer explicitly to the readers. Along with Engagement markers, this subcategory indicates the writers' degree of awareness to the readers. Below exemplifies the **Reader markers** employed in the two data in Business Administration:

Reader markers	Exemplars
Your You	1. If <u>your</u> problems are centered on service providers <u>you</u> contract with, bring in <u>your</u> contracting and legal departments and together work with the providers for satisfactory service.
you	2. As for the points for fast negotiations, buy from companies that want to sell what <u>you</u> want to buy.
You your	Make sure <u>you</u> have representatives from other contributing SLAs on <u>your</u> SLA developing team
You your	3. The more <u>you</u> try to face a vendor to accept <u>your</u> needs, the more protected the negotiation and the higher the final cost.
you	4. Sell to customers who want to buy what <u>you</u> want to sell.
you	5. If a customer insists that <u>you</u> change something <u>you</u> cannot change, the negotiations are over.
you	7. Gain an understanding of the problem from the users' perspective and understand the realities of what <u>you</u> can and cannot do.
you	8. Specific areas to investigate are the important hours of operation, how quickly must routine and urgent requests move, which business units have high priority for business operation in an outage, do business partners require higher service levels than what <u>you</u> provide and what are the service policies.
you	9. When one studies power corporation's history, <u>you</u> cannot see that the nation and the firm are one; the fate of one is inextricably linked to the other (Rodrigo, 2003).

The use of the second person pronouns *you* and *your* in this disciplinary field enhances the writers' authority as he provides tips and directs or instructs the reader what to do. The writer exudes a persona who is more knowledgeable

than the reader, thus suggesting authority and credibility. At the same time, the employment of the personal pronoun “you” and “your” diminishes formality and assumes a conversational tone. It seems to build solidarity in an effort to create dialogue with the reader. The writer could have chosen to make the reader anonymous and assume a general readership by adopting a statement in the passive voice or impersonal statement as in no. 1 “*Make sure there should be representatives from other contributing SLAs in one’s SLA developing team*” or “*Make sure representatives from other contributing SLAs should be present in one’s developing team.*” The fact that the writer opted for an explicit reference suggests foregrounding of the reader. Though Business Administration employs explicit reference to the readers, it cannot be taken as part of the writing convention in the disciplinary field as this is only seen in the two data. It can be assumed, however, that this can be attributed to individual writer’s rhetorical preference and degree of permissiveness in the writing practices of the academic discourse community.

The figures indicate that Metadiscourse use may have transgressed the requirement of the disciplinary culture which may be is the result of the academic writing convention policy of some colleges and universities. Writers may have been allowed certain degree of freedom in their academic writing. However, this does not hold true in the case of Biology since, though all the data were sourced from the same institutions, ***Self mentions***, ***Reader markers*** and ***Engagement***

markers were never employed in the dissertations. It seems to indicate then that Metadiscourse use may have been influenced also by the disciplinary culture.

In sum, the findings, therefore, reveal that disciplinary field does exert influence in the linguistic choices of the writers as illustrated in the non-employment of **Engagement markers**, **Reader markers** and **Self mentions** in all Biology texts. However, the employment of Metadiscourse devices in the writings may have been influenced also by the individual writer's linguistic preferences or rhetorical strategies as exemplified in the dissertations in Business Administration. Rhetorical strategy refers to the lexical choices the writer makes to communicate effectively to his/her readers. Furthermore, some disciplinary fields may have allowed certain degree of freedom in the ways academic reports are written, thus explains the divergence of Metadiscourse usage in hard science like in Engineering. On the basis of the findings, it can also be said that academic writing conventions or research writing instructions passed on through the years in tertiary institutions seem to be a factor in how research and technical reports should be written and presented. This is observed in the dissertations in Applied Linguistics. To mention also, the primary objective of the writer in academic writing influences the use of Metadiscourse devices as evidenced by the numerical predominance of Interactive resources in all data across disciplines.

4.4 What does the use of Metadiscourse markers by the advanced Filipino second language writers reveal about themselves as academic writers in terms of reader awareness?

The amount and the type of Metadiscourse devices used in the academic writing of the Filipino writers reflect what the writers give premium to, the degree of their reader awareness, and their assessment of how the readers would respond to their writing. Their propensity for certain Metadiscourse features reveals something about themselves as academic writers. The numerical preponderance of Interactional Metadiscourse particularly ***Self mentions***, ***Engagement markers*** and ***Reader markers*** in the text shows the writers' intrusion into the text and the writer's recognition of his readers' presence. Table 18 shows the comparison of the summary of Interactional Metadiscourse across disciplines.

Table 23

Comparison of the Summary of Total Occurrences and Percentage of Distribution of all Subcategories of Interactional Metadiscourse Across Disciplines.

Metadiscourse Category	Biology		Engineering		Business Administration		Applied Linguistics	
Interactional Metadiscourse	Total	%	Total	%	Total	%	Total	%
Hedges	529	21.36	335	23.30	559	22.80	953	22.93
Boosters	74	2.99	66	4.59	43	1.75	132	3.18
Attitude markers	87	3.51	76	5.29	124	5.06	129	3.10
Engagement markers	0	0	32	2.23	139	5.67	66	1.59
Self mentions	0	0	35	2.43	14	0.57	18	0.43
Reader markers	0	0	0	0	14	0.57	0	0
Total	690	28.33	544	37.83	893	36.42	1,298	31.22

Analysis of the Interactional Metadiscourse shows that Engineering has the most reader sensitive writers as revealed by the 37.83% or 544 frequency followed by Business Administration with 36.42% or 893 occurrences, respectively. It can be noted that the two abovementioned disciplines are also

the ones that recorded the highest **Engagement markers** with 2.23% and 5.67% occurrences, respectively. It is also important to mention that it was only in Business Administration that **Reader markers** are employed with 0.57% occurrences. In contrast to these two disciplinary fields, Biology did not employ any **Engagement marker and Reader marker** while Applied Linguistics did not employ any **Reader markers** and employed only minimal **Engagement markers** with 1.59% occurrences. These two are also the ones with the lowest **Attitude markers** indicating that writers in these disciplinary fields opt to disengage themselves with the text and to show objectivity by avoiding expression of emotional coloring and impression of impartiality.

The findings in Biology also indicate that Biologists are more concerned with the dissemination of information as objectively as possible without the influence of personal biases. This probably explains why texts in this disciplinary field are more text-oriented and less writer-oriented. Furthermore, Biology is a science where findings of the study may be regarded as more important than the person who did the work and the person to whom the text is addressed, thus the absence of **Reader marker, Engagement marker and Self mention**.

As shown in Table 23, the presence of **Hedges** which is about one fourth of the total Interactional markers, revealed how cautious the writers are. The writers showed their awareness of some readers who may not be completely convinced of what they claim to be and of subject specialists with similar interest

who may not agree with their arguments. Interestingly among the disciplines, Engineering with 23.30% showed to have the most cautious writers, followed by Applied Linguistics with 22.93% and Business Administration with 22.80% while Biology had the least cautious of all with 21.36%.

The greatest degree of certainty and commitment to propositional truth comes from the Biologists presumably because of the preciseness of results from experiments undertaken. However, the writers from Business Administration are the ones that showed the least certainty in their claims. A great percentage of the writers preferred to use implicit Metadiscourse markers to show awareness of their readers as shown by their ***Hedges, Boosters, Attitude markers***, and ***Engagement markers*** and a lower preference for explicit Metadiscourse markers as shown by the ***Reader markers***. This finding affirms that dissertation as an academic discourse generally adheres to an impersonal and formal discourse. It also implies that Filipino writers prefer to suppress the visibility of the readers and minimize the intrusion of the writers in their academic writing with the hope of gaining acceptance and increase persuasiveness through impartiality.

In sum, the writers from the discipline of Engineering and Business Administration are revealed to have the highest degree of reader awareness and sensitivity in terms of Metadiscourse use. In terms of the frequency of Interactional Metadiscourse markers in each discipline as shown in Table 23,

writers in Business Administration were the most reader- oriented writers as shown by the 5.67% **Engagement markers** and 0.57% **Reader markers** while writers from Engineering were the most writer- oriented as revealed by the 2.43% **Self mentions**. Furthermore, Engineering also has the highest employment of **Hedges** with 23.30%, **Boosters**, 4.59% and **Attitude markers**, 5.29%. On the other hand, the writers in Biology appeared to be the most text-oriented writers as indicated by the highest employment of Interactive metadiscourse (28.33%) and the least reader-oriented and least reader-aware writers as indicated by the non-employment of **Reader markers** and **Engagement markers**.

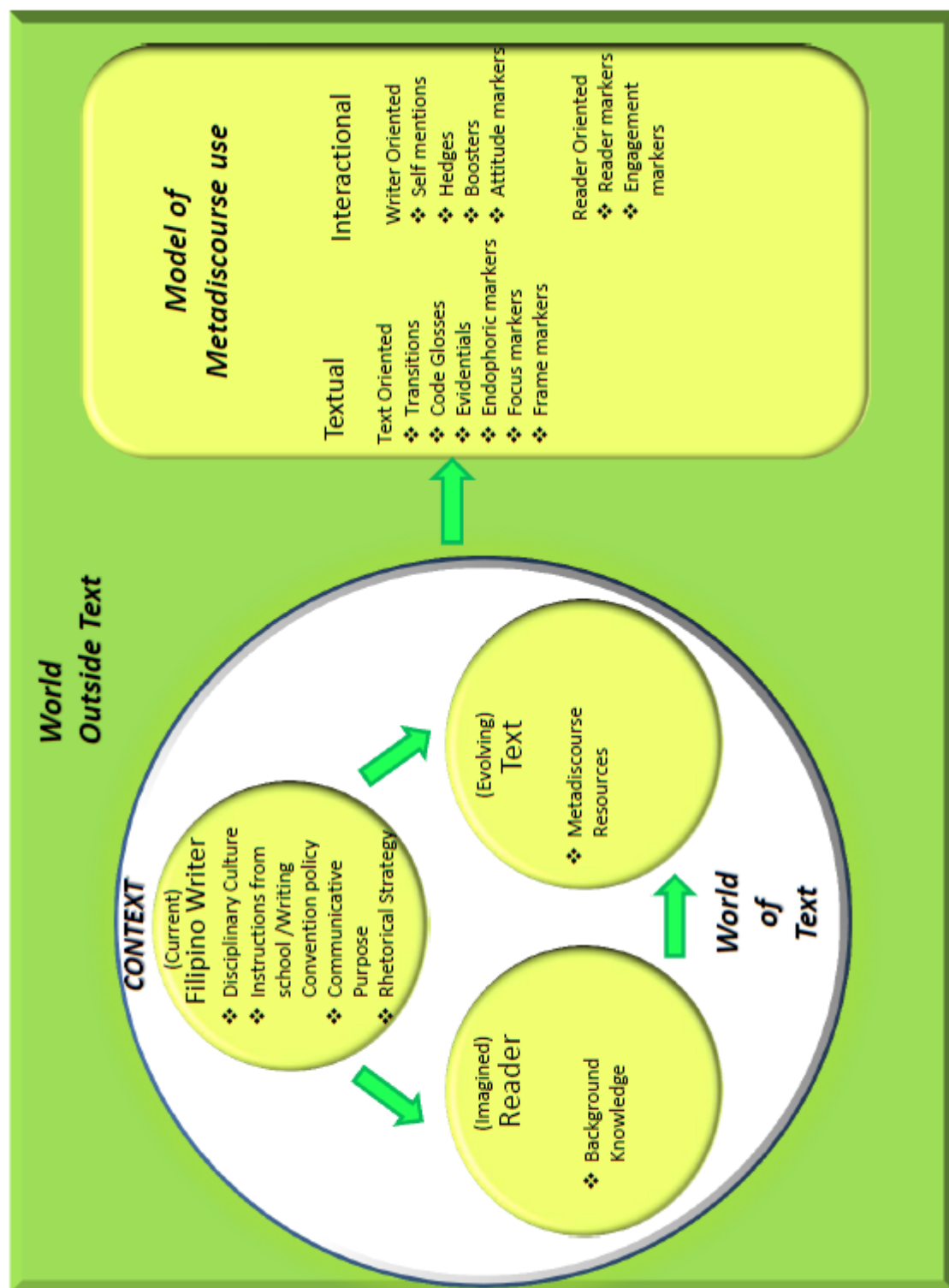


Figure 11 Schematic Diagram of Metadiscourse Model of Filipino Writers Argumentative Text

The Proposed Model of Metadiscourse Use of Filipino Writers

The model of Metadiscourse presented in this paper is dominantly influenced by Hyland's (2005) model of Metadiscourse. Hyland's Taxonomy of Metadiscourse is adopted because it better captures the characteristics of academic writing unlike Adel's model which is more adopted to analyze the more personal essays. However, there is a slight modification to accommodate other Metadiscourse features present in the texts but were not included in Hyland's model.

The model adopts the concept of explicitness and contextuality. By explicitness, it is construed as the writer's self-awareness of the on-going discourse, the writer, and the reader (Adel, 2006). It is the explicit wording to refer to a specific reference in the text. According to Hatch (1992), readers can get much meaning from the text if they only consider looking into the discourse features that have, what she calls, the "*pointing function*" in the text. By contextuality, it refers to the circumstances in which a particular linguistic feature occurs.

In the model, the three major concepts in academic writing are; the *writer*, the *reader*, and the *text* which are represented by the circles. The writer is identified as the Filipino dissertation writer, whose Metadiscourse use in academic writing can be influenced by several factors such as the disciplinary culture he is exposed to, the writing instructions or writing convention policy in

tertiary institutions, the linguistic choices as part of his rhetorical strategy and his primary communicative intention. Such factors may have been the cause of diversity of metadiscourse use among dissertation writers in terms of the amount and the type of metadiscourse resources. The *Reader* can be a researcher, an advanced student, a panel of examiners and professors or the academic discourse community the writer asserts to belong. The arrows from the *Writer* and the *Reader* point to the circle representing the *Text* which indicates that the writer generates knowledge as a product of research and creates the text as the venue of knowledge dissemination which is ultimately consumed by the intended reader.

According to Hyland (2005), the context is a necessary criterion for Metadiscourse elements and making reference to the current writer, the evolving discourse and the imagined reader facilitates the identification of metadiscursiveness. Hence, it is necessary to distinguish the *World Outside Text*, which refers to knowledge, experiences, and events outside the current text and the *World of Text* which refers to the on-going discourse, the current writer and the intended reader of the text. Anything outside the *World of Text* refers to the *Outside world* and is, therefore, not metadiscursive.

This model also adopts the concept of “*orientedness*”. By orientation, it means to whom the metadiscourse feature is oriented or focused which can be the text, the writer, and the reader. The circle representing *Text* contains

Metadiscourse features which can be described as *Text-oriented*, *Writer-oriented*, or *Reader-oriented metadiscourse* which can be further described into either implicit or explicit markers.

In this model, the major categories of metadiscourse are the *Textual metadiscourse* which are rhetorical devices that guide the reader in reading the text and *Interactional Metadiscourse* which are language devices that engage the reader in the text. Textual Metadiscourse includes ***Transitions***, ***Code glosses***, ***Endophoric markers***, ***Evidentials***, ***Frame markers***, and ***Focus markers***, the last of which is an addition to Hyland's model to accommodate other discourse features believed to guide readers in understanding the text but which have not been included in the model. The ***Focus markers*** are the discourse markers that may lead readers to focus attention to a particular word or topic, a part of the text or to refer to an immediate reference in the current text for emphasis or for ease of understanding. The ***Focus markers*** are language resources that function to create a text that can be easily understood by the intended readers because of its "pointing" and "focusing" function.

It can be noted that *Evidentials* suggest intertextuality and, therefore, has reference outside the world of discourse. However, following Hyland's (2005) model, the present model takes *Evidentials* as Metadiscourse with the notion that these may lead the readers to the assessment of the truth and validity of the claims.

The second category is the *Interactional Metadiscourse*, which includes the ***Self mentions, Attitude markers, Hedges Boosters, Engagement markers, and Reader markers***. ***Self mentions*** are the explicit references to the current writer such as first person personal pronouns like *I*, *exclusive we*, etc. and words like *the researcher, writer, author or proponent of the research*. On the other hand, *Hedges, Boosters, and Attitude markers* are implicit writer-oriented Metadiscourse which have implicit reference to the current writer since these expressions convey attitudes and indicate the writer's mental state as s/he makes assessment of the propositions.

The ***Reader markers*** and the ***Engagement markers*** are reader- oriented metadiscourse; the former include explicit reference markers to the current reader such as the second person personal pronouns *you* and *your/s* and the word *reader*. Both are explicit markers that imply a high degree of reader awareness. ***Engagement markers*** with explicit discourse reference include directives or imperatives, questions, and comments or asides made by the writers. Statements with modals are considered ***Engagement markers*** with implicit reference markers since they indirectly address the reader of the text. Together with ***Reader markers, Engagement markers*** would reveal the degree of the reader visibility and the writer's reader awareness in the text. These metadiscourse resources belong to the ***Engagement marker*** category in Hyland's model.

Since the model discussed above was adopted for academic writing, this model can also be employed to look into the persuasive strategies of various writings through the use of metadiscourse resources. These may include journal articles, research grant proposals, company letters, news editorials, opinion columns, advertisements and a host of other writings with persuasion as its primary objective. This model can also be employed in analyzing author and reader visibility in academic books which are perceived to have objective and informative presentation more than persuasive. With the creation of a separate category for ***Reader markers***, the model would also be helpful in personal and persuasive essays as well as expository composition writing of students.

Chapter V

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the salient findings of the topic inquiry, the conclusions on the basis of the findings in the study and the recommendations in relation to the results of the study.

This study was conducted to examine, compare and contrast the use of Metadiscourse devices in the dissertations of Filipino writers across four disciplines, namely; Biology, Engineering, Business Administration, and Applied Linguistics. It was confined to the comparative-descriptive analysis of the Metadiscourse features of the forty dissertations using Hyland's (2005) Taxonomy of Metadiscourse in Academic Writing.

Specifically, the study sought to answer the following questions:

1. What are the patterns of Metadiscourse use in the dissertations of Filipino writers across four disciplines; Biology, Engineering, Business Administration and Applied Linguistics?

2. Are there similarities and differences in the use of Metadiscourse as rhetorical device in the dissertation writing of Filipino writers in the four disciplinary fields in terms of:

- a. amount of Metadiscourse?
- b. type of Metadiscourse?

3. What factors may account for the similarities and differences in the use of Metadiscourse in the dissertation writing of Filipino writers in Biology, Engineering, Business Administration and Applied Linguistics.

4. What does the use of Metadiscourse markers by Filipino writers reveal about themselves as academic writers in terms of reader awareness?

Summary of Findings:

Analysis of the employment of Metadiscourse features in the dissertations revealed the Filipino writers rhetorical preferences for academic writing. Following the frequency of occurrences, patterns were observed across four selected disciplines.

The findings revealed that across all four disciplines, there was higher usage of Interactive Metadiscourse than Interactional Metadiscourse devices, as shown by the 72.14% occurrence in Biology, 62.17% in Engineering, 63.58% in Business Administration, and 68.72% in Applied Linguistics. On the contrary, Interactional Metadiscourse only accounted for 27.86% in Biology, 37.83% in Engineering, 36.42% in Business Administration and 31.22% in Applied Linguistics.

The findings also showed that the most frequently used Metadiscourse devices are the **Hedges** and **Transitions**. Among the top three most highly visible Interactive Metadiscourse markers were **Transitions**, **Evidentials** and

Code glosses for the soft disciplines and **Transitions**, **Evidentials** and **Endophoric markers** for the hard disciplines. The least visible were **Frame markers** and **Focus markers**. On the other hand, **Hedges** appeared to be the most frequently employed Interactional Metadiscourse and **Attitude markers** and **Boosters** were moderately employed while **Engagement markers**, **Reader markers** and **Self mentions** the least employed among all the data investigated.

The similarities and digressions in the employment of Metadiscourse devices may be attributed to some factors. The predominant use of Interactive Metadiscourse among all disciplines included in the study could be attributed to the primary objective of the writers to present a text that is coherently organized with arguments explicitly and clearly stated in order to guide the readers, particularly the panel of examiners, students and researchers, the academic community and ultimately to persuade them with the arguments presented. Clarity, coherence, and explicitness of the text may have been achieved with the use of **Transitions** and **Code glosses** and **Endophoric markers** while persuasiveness may have been attained by **Evidentials**. Furthermore, the minimal use of Interactional markers can be presumed to be the result of the writers' desire to present arguments that are impartial, detached and devoid of personal and emotional tone as indicated by the low incidence of **Self mentions**, **Engagement markers** and **Attitude markers**. The aim to present an impartial result was also implied in the higher employment of non-integral citations where the object of inquiry is given prominence over that of the agent of inquiry.

The higher incidence of ***Self mentions*** and ***Engagement markers*** in Engineering as compared to the other disciplines might have been the result of individual writers' rhetorical style or strategy. The writing convention policy of the disciplinary community may have sanctioned certain degree of digression from the traditional view of scientific discourse; that is, impartial and objective. This notion of objectivity may have been the result of decades of instructions in Research Report Writing among tertiary institutions as evidenced by Research and Technical writing manuals and textbooks.

The ***Hedges***, which seemed to be the most preferred Interactional Metadiscourse device in all disciplines studied, can probably be accounted for the high degree of caution adopted by the Filipino writers to show certain degree of deference to the discourse community to which the text is addressed. Tentative statements provide room for doubts and avoid the risk of inimical responses in the event the findings would be contrary to the results of the study. The low incidence of definite statements such as ***Boosters*** seems to indicate the authors' evasion for possible oppositions from the expert readers.

On the whole, the use of Metadiscourse markers as rhetorical devices in academic writing revealed that writers in Engineering and Business Administration have the highest degree of reader awareness. Business Administration has the most reader-oriented writers while Engineering has the most writer-oriented but the least text-oriented writers. On the other hand, the writers in Biology are and the least reader-oriented and writer- oriented writers

and the most text-oriented followed by the writers in Applied Linguistics. Generally, Filipino academic writers are more text- oriented rather than writer-oriented and reader- oriented individuals.

Findings also revealed that there is little difference in the use of metadiscourse devices by dissertation writers in quantitative and qualitative research. Interactive metadiscourse is slightly higher in quantitative research with 67.43% compared to 67.17% in qualitative research. However, Interactional metadiscourse is slightly higher in qualitative research with 32.83% than quantitative research with 32.57% occurrence. Similar results were found across disciplines in terms of the amount and type of metadiscourse use.

All these findings imply that knowledge of the nature and characteristics of the Filipino dissertation writings would provide insights into the rhetorical strategies writers in particular disciplines employ in order to achieve persuasiveness of the text and ultimately to gain communal acceptance among members of discourse community. The findings revealed that Filipino writers give prime importance to the dissemination of information that is objectively, coherently and persuasively presented as indicated by the predominant use of Interactive metadiscourse. Persuasiveness is achieved by the employment of **Transitions, Evidentials, Endophoric markers** and **Code glosses**. The findings also revealed the strength and the flaws of the academic writings in various disciplinary fields; hence, people in the academe can initiate reforms in the writing programs in order to help students improve their written output. More

importantly, this educates Filipino writers on the role of metadiscourse in dissertation writing and, thereby, converts writers from a reader-responsible to a more writer- responsible individuals and reader-oriented writers.

Conclusions:

Based on the above findings of the study, the following conclusions are formulated:

1. Metadiscourse markers are universal language features in academic texts but they differ in terms of the amount and the type of metadiscourse devices used by the Filipino writers in various disciplinary cultures. The preponderance of Metadiscourse features in academic writing reveals the patterns of use by various disciplines.

2. Similarities and differences in the employment of Metadiscourse markers indicate the writers' rhetorical preferences in academic discourse. More importantly, they reveal the ways Filipino writers from various disciplines employ metadiscourse features to guide their readers in understanding the text, persuade them to accept their assertions, and engage with them to establish solidarity and credibility.

3. Metadiscourse use can be constrained by the writers' purpose, the writing convention policy of the academic community, individual rhetorical strategy as sanctioned by certain degree of freedom and the

writing instructions in tertiary institutions as regards research and technical report writing.

4. Analysis of the interactional metadiscourse features reveals the writers' degree of awareness of their intended readers. Their use of explicit markers such as Self mentions, Reader markers and Engagement markers increases the presence of the reader and the author in the text.

5. The use of metadiscourse devices by writers does not differ much in dissertations with quantitative or qualitative research design in terms of the amount and type of metadiscourse.

Recommendations:

Based on the findings and foregoing conclusions, the following are the recommendations:

A. For Pedagogy:

1. The employment of ***Self mentions*** and ***Engagement markers*** may be encouraged among dissertation writers, researchers and students to increase authorial presence and visibility in their texts, thus increase also text persuasiveness.

2. Though various disciplines and institutions adopt a format for their dissertation writings, the teaching of Frame markers particularly in the sciences must be given emphasis in research, thesis, and dissertation

writing in order to guide potential readers in the context and content of the text.

3. The teaching of Research subjects in the tertiary institutions especially in the undergraduate must integrate the concept of Metadiscourse. This can be integrated in the section where language and style is discussed.

4. Course syllabi in Writing courses in the undergraduate level such as Technical and Report Writing, Research Writing, Writing in the Discipline, and the like must undergo review and revisions to accommodate the use of Metadiscourse in writing. A section in the course syllabi must be devoted to language use where metadiscourse can be discussed as a tool to make writings more coherent and persuasive.

5. Instructional material designers and Language or Writing teachers must include items on the use of Metadiscourse in the writing exercises of the students.

6. Undergraduate students must be made aware of the positive effect and importance of Metadiscourse resources as part of their rhetorical strategies to improve their writing through constant exposure to them in workbooks, writing manuals, textbooks and the like.

B. For Future Research

1. A similar study on Metadiscourse use in theses or dissertations using a larger data to analyze is recommended in order to validate the findings of the present study and to come up with a more conclusive generalization. Also, the use of computer software in analyzing a larger corpus of dissertations and of more sophisticated statistical tools is recommended.

2. A similar inquiry on other disciplinary fields is also recommended to look into the metadiscourse preferences of other writers in other disciplines, the textual organization and the lexical choices they make to present a more persuasive academic text.

3. More study on the use of Metadiscourse markers among high school and college undergraduate students in their expository writing must be done to gain insights into their rhetorical strategies and linguistic preferences in order to provide instructional intervention to improve their writing.

4. Other argumentative writing such as persuasive essays of Filipino second language writers, women writing, advertisements, spoken discourses such as political speeches, and other forms must be explored and studied by researchers to look into their use of Metadiscourse to achieve their goals.

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APPENDICES

Appendix A

Language Coder's Profile

1. Name: **Dr. Lilian Uy**
 Position: Dean, College of Education
 Educational Qualification:
 AB English
 MA Ed Language Teaching
 Ed.D Educational Management
 Number of years of teaching: 26 years

2. Name: **Dr. Santi Magtalas**
 Position: Former Program Coordinator
 Educational Qualification:
 AB English
 MA Ed. Language Teaching
 Ed.D. Educational Management
 Number of years of teaching: 9

3. Name: **Prof. Helen Magno**
 Position: Principal, Laboratory High School
 Educational Qualification:
 BSE major in English
 MA Ed. Language Teaching
 Ed.D Educational Management (student)
 Number of years of teaching: 25 years

4. Name: **Prof. Milagros Mora**
 Position: Former Director, Cultural and Literary Affairs
 Educational Qualification:
 BSED Major in English
 Diploma in Language Studies for Teachers (Reading)
 Number of years of teaching: 25 years

Appendix B

Letter Request for Data Gathering

Dear _____:

I am a graduate student of Linguistics at the Philippine Normal University, Manila, currently working on my dissertation entitled “Metadiscourse of Filipino Writers’ Argumentative Texts Across Disciplines”. As part of my research, I will be doing textual analysis using data of Chapters 1 (Introduction) and IV (Results and Discussion) of theses and dissertations from various disciplines.

This study shall attempt to find out how Filipino academic writers from various disciplinary fields use selected discourse features to organize text in order to guide their readers in understanding, interpreting, and reacting to their text, engage with them to establish credibility and present arguments to convince them.

In this connection, may I respectfully request permission from your good office to gather data from _____ library specifically Chapter I Introduction section and Chapter IV Results and Discussion section (or Presentation, Analysis and Interpretation of Data section). Considering the number of pages, may I be allowed to photocopy or print the pages contained in the two chapters of selected thesis and dissertations. Be assured that the selected materials used will be properly acknowledged in my paper and that all data contained will be utilized for the purpose of research.

I would truly appreciate if you would consider my request for the sake of academic endeavor. Your assistance will greatly help me complete my dissertation.

Thank you very much.

Respectfully yours,

Researcher

Appendix C

Data used in the Study:

Disciplinary Field: Biology

1. Arboleda, M.D. (2009). Prokaryotic Epizoic Profiles of Diseased Corals and Detection of the Causative Agent of *Porites Ulcerative White Spot* (PUWS) Coral Disease in the Lingayen Gulf, Philippines.
2. Dapat, E. G. (2011) A Phenolic from *Agaia Loheri* Blanco Leaves is a Potential Anticancer Agent.
3. De Hitta- Catalan, M. H. S. (2010). Mapping of Quantitative Trait Loci Associated with Resistance to Rice Tungro Diseases.
4. Gutierrez, R. M. (2006). Acid Tolerant Rhizobia of *Phaseolus vulgaris* L. from the Intensely Cropped Soils of La Trinidad, Benguet, Philippines.
5. Medecillo, M. P. (2010). Systematic Studies on Philippine *Alocasia* (Schott) G. Don (Araceae).
6. Punzalan-Braddy, G. A. N. (2008). Cancer Chemopreventive and Chemotherapeutic Activities of Flavonoid-Positive Fractions from *Annona squamosa* Linn. Leaf Extracts.
7. Puzon, J.J, M. (2007). Subcellular Cadmium Localization and Characterization of Cadmium- Binding Biomolecular in the *Eichornia Crassipes* (Mart.) Salme.
8. Quilang, J. P. (2008). Transcriptome Analysis and Bioinformatic Mining of Microsatellite and SNP Markers from ESTs of the Eastern Oyster *Crassostrea*.
9. Rubite, R. R. (2010). Systematic Studies on Philippine *Begonia* L. Section *Diploclinium* (Lindl.) A.D.C. (Begoniaceae)
10. Wong, H. L., Jr., (2005). Common Philippine Seahorses (Teleostei: *Syngnathidae*) and their Phylogenetic Relationship

Disciplinary Field: Engineering

1. Allera, A. S. (2008). Performance of an Anaerobic Baffled Filter Reactor (ABFR) – Aerobic Attached Film Bioreactor (AAFR) System in Semi-Batch or Continuous Mode for Treating Organic Wastewater.
2. Anacta, E. T. (2009). Modelling the Depth of Chloride Ingress and Time- To-Initiate Rebar Corrosion in Concrete Exposed to Tidal Zone.
3. Consignado, L. J. (2007). Biological Treatment of Textile- Dye Wastewater: Fate of Azo Dye and Dye Dehydration Products in Anaerobic – Aerobic System.
4. De Leon, R. L. (2006). 3 – D Treatment Heat Transfer in a Simulated Solar Heated Absorption Panel.
5. Dugos, N. P. (2008). Selective Separation of Ternary Liquid Systems by Molecular and Ionic Interaction Modification with Modelling.
6. Jamisola, R. S. Jr. (2010). Identifying Mass and Moment of Inertia Through Natural Oscillations for Full-Dynamics Control of Robot Manipulation.
7. Malli- Bellotindos, L. (2009). Sonoleaching Development of Rapid Determination of PB from Stabilized Water Using Ultrasound Assisted Leaching.
8. San Diego-Cleofas, D. (2012). Numerical Simulation of Saltwater Intrusion in Panglao, Bohol.
9. Talisic, G. C. (2007). Extraction of B- Carotene from Natural Substrates Using Supercritical Ethane and Ethylene.
10. Tapas, A. L., Jr. (2007). Decolorization of Azo Dyes in Sequencing Batch Reactor.

Disciplinary Field: Business Administration

1. Berino, D. (2009). The Effect of Multi-System Cultural Framework on the Ethical Conduct of the Agency in Select Life Insurance Companies in the Philippines.
2. Colorado, G. M. (2008). The Impact of R&D and Imported Capital Goods on the Productivity of the Philippine Manufacturing Sector.

3. De la Cruz, A. V. (2007). Estimates of Time-Varying Betas of Philippine Stocks.
4. Manalo, M. V. (2008). Project Prioritization Method Using Analytic Heirarchy Process.
5. Manalo, R. G. (2009). Estimating the Cost Performance Metrics of Service Level Agreements Between Shared Service Centers and Profit Centers of a Private Electric Distribution Utility Using the Activity-Based Costing as a Management Tool.
6. Padojinog, W. C. B. (2009). Strategic Franchising Decision and Pricing of Franchise Rights by Philippine Franchisors.
7. Palaganas, J. O. (2009) Factors Affecting Management Perception of Total Quality Services among the Semi-conductor Companies.
8. Racelis, A. D. (2009). The Influence of Organizational Culture and Human Resources Management Practices on the Performance of Philippine Banks.
9. Santos III, J. O. (2007). Efficiency of Philippine Commercial Banks.
10. Saquido, A. P. (2007). Wavelet Analysis and the Test of the CAPM in the Philippines.

Disciplinary Field; Applied Linguistics

1. Alamis, M. M. P. (2011). Discourse Organization and Linguistic Features of Homilies in Philippine English and Indian English: An Intercultural Rhetoric Approval.
2. Alcoberes, P. J. N. (2010). The Rhetoric of Travel Advisory: A Critical Discourse Analysis.
3. Dungo- Pena, K. (2010). Dimensions of Incidental Vocabulary Acquisition and Their Effects in Reading Comprehension of ESL Learners.
4. Gaerlan, M. J. M. (2009). Social Influences on Successful Learning in a L2: A Proposed Model from Consensual Qualitative Research.
5. Go, J. L. (2010). Task-based Teaching and Its Effect on Second Language Acquisition of College Freshmen Students.

6. Godinez, M. V. Z. (2009). Syntax and Word Awareness: Correlates of Problem Solving in Algebra: A Bilingual Perspective.
7. Gonong, G. O. (2007). Image Construction of a Developing Nation in Presidential Rhetoric: A Critical Discourse Analysis.
8. Mercado, F. M. (2006). The Genre of Research Articles: A Comparative Analysis of Language Use.
9. Satoquia, N. M. (2010). Peer Oral Feedback and Revision of Students Compositions.
10. Villamarzo, P. C. (2007). Language Learners' Writing Attitude and Perspective Written Output: Strategies-based Instruction.



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CERTIFICATION

This is to certify that the dissertation of LUZ N. CORPUZ entitled "*Metadiscourse in Filipino Writers' Argumentative Texts Across Disciplines*" **passed** the authenticity test performed by the office on May 3, 2014, 2014, using the Anti-Plagiarism software of the university.


ANTRIMAN V. ORLEANS, Ph.D.
Director 8

PNU OR No. 142493
UCRSS PO: 2014-0059
Student No: G2008123120

CURRICULUM VITAE

PERSONAL DATA:

Name: LUZ NATO-CORPUZ
Birthday: April 23, 1963
Birthplace: Sta. Cruz, Zambales
Religion: Roman Catholic

EDUCATIONAL BACKGROUND:

Postgraduate:

Ph.D Linguistics (with specialization in Applied Linguistics) PNU, Manila	Recipient of Faculty Development Scholarship (2014)
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Graduate:

M. A. English Studies (Language) UP, Diliman	Scholar (Faculty Development Scholarship Program) (2004)
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Baccalaureate:

Certificate in English PNU, Manila	(1990)
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18 units Education WLAC, San Marcelino, Zambales	(1988)
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BS Animal Husbandry (DVM) CLSU, Nueva Ecija	Dean's Lister (1984)
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Hgh School:

Sta. Cruz Academy Sta. Cruz, Zambales	graduated Salutatorian (1980)
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Elementary

North Central School (Annex) Sta. Cruz, Zambales	graduated Salutatorian (1976)
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:

CURRENT POSITION:

Associate Professor III

WORK EXPERIENCE/POSITIONS HELD:

Chairperson, College of Education, Arts & Sciences	- July – November, 2013
Director, Student Affairs	- 2003 – 2013
Chief, Publication	- 2001 – 2003
Adviser, School Paper	- 1997 – 1999
Adviser, CSBO	- 1990

TRAININGS, SEMIMARS, CONFERENCES ATTENDED

Classroom-based Research	August 1-3, 2013
Teaching of Literature	January 20-22, 2012
1 st Cebu International TESOL Conference	August 12-14, 2010
PAASA III 10 th Annual Convention	January 21-23, 2010
Tri-International Conference on Language Education	December 3-5, 2009
Training Course on the Organization and Administration of Student Affairs	Feb 28- Mar 1, 2009
13 th PAASA National Convention	Sept 24-27, 2008
4 th PALT International Conference	December 3-5, 2008
Graduate School's Response to Globalization: Emerging Instructional Modalities	January 20, 2007
3 rd International Conference on Language Education & 4 th PALT National Convention	December 4-6, 2007
Inaugural Conference on Educating Leaders for Contemporary Learning Organization	February 28, 2007
Training Course on Research in Student Affairs	March 8-10, 2007

PROFESSIONAL MEMBERSHIP

PALT (Philippine Association for Language Teaching)
LSP (Linguistic Society of the Philippines)
PAASA (Philippine Association for Administrators of Student Affairs)