CHAPTER 3

Corpus and Analysis

3.1 Introduction

This chapter describes the corpus and the procedures of analyses used to meet the objectives set out for this study. I first describe the corpus and then describe the methodology used: moves and linguistic analysis, which presents how rhetorical moves for the abstracts and the various parts of the RA and the selected linguistic elements and their internal structure were identified.

Previous studies on rhetorical organization have shown that disciplinary variations can have discernible influences on rhetorical structure and language use (e.g. Ngowu, (1997); Posteguillo, (1999); Swales, (1990); Samraj, (2002)**;** Thompson, (1993). Due to the lack of studies on the complete rhetorical structure of interdisciplinary RAs in the soft sciences, especially educational psychology, Economic Psychology and Environmental Psychology, I intend to, apart from providing a baseline description of the rhetorical organization of the RAs within these disciplines, to also understand how titles and new knowledge claims within them are formulated.

It is known that there are two main ways we can study social interactions in writing. We can examine the actions of individuals as they create particular texts, or we can examine the distribution of different genre features to see how they cluster in complementary distributions. Also, an ideal methodology of genre analysis should involve text analysis and writer response data as well, but the feasibility of the latter is usually low, and does not eliminate the need for interpretation (Hyland, 2000). In this study, due to the unavailability of local informants for Environmental Psychology and Economic

Psychology as these disciplines are not offered as courses for studies in local universities, I decided to do a text analysis, as within its known limits, text analysis still offers a systematically informed, useful and practical approach to the investigation and understanding of a particular genre (Ruiying and Allison, 2004).

3.2 Compilation of the Corpus

A corpus was built comprising 90 RAs, 30 each from educational psychology, economic psychology, environmental psychology published between 2005 and 2007 from the journals, Contemporary educational psychology, The Journal of Environmental Psychology and The Journal of Economic Psychology respectively. These journals are published by Elsevier publications, which is a world leading publisher of scientific, technical and health information. All the articles were downloaded from the database *ScienceDirect Online* (http://www.sciencedirect.com), the world's largest electronic collection of science, technology and medicine with full text and bibliographic information, accessed at the library of the university of Malaya , Kuala Lumpur, Malaysia. The database *ScienceDirect Online* contains over 1800 journals, including almost every top title across 24 disciplines from natural science to social science, and is considered to be one of the most authoritative and representative databases (Wang, Liang & Ge, 2008).

Contemporary Educational Psychology published since 1976 publishes articles that involve the application of psychological theory and science to the educational process. Of particular relevance are descriptions of empirical research and the presentation of theory designed to either explicate or enhance the educational process. This journal has

an impact factor of 1.057 with a 5 year impact factor of 2.209 and is issued 4 times a year (http://www.elsevier.com).

The Journal of Environmental Psychology published since 1981 is directed toward individuals in a wide range of disciplines who have an interest in the study of the transactions and interrelationships between people and their sociophysical surroundings and the relation of this field to other social and biological sciences and to the environmental professions. An important forum for the field, the content of the journal reflects the scientific development and maturation of the study of environmental psychology. Contributions on theoretical, methodological, and practical aspects of human-environment interaction are included, along with innovative and/or interdisciplinary approaches with a psychological emphasis. This journal has an impact factor of 1.650 with a 5 year impact factor of 2.658 and is issued 4 times a year (http://www.elsevier.com).

The Journal of Economic Psychology published since 1981 aims to present research that will improve understanding of behavioral, especially socio-psychological, aspects of economic phenomena and processes. The Journal seeks to be a channel for the increased interest in using behavioral science methods for the study of economic behavior, and so to contribute to better solutions of societal problems, by stimulating new approaches and new theorizing about economic affairs. This journal has an impact factor of 1.473 with a 5 year impact factor of 1.670 and is issued 6 times a year (http://www.elsevier.com).

The corpus was restricted to a period of 2 years to control for rapid changes within any of the disciplines. The journals publish a variety of items such as review essays, rebuttals, comments and research notes. Since these texts represent distinct genres with

distinct communicative purposes, they were excluded from the corpus. Specifically, only RAs related to the research interest section of the disciplines were selected. Consequently the corpus in the present study was restricted to articles the primary function of which is to present original research.

It is accepted practice in Move based studies to include only articles written by native speakers of English to increase the reliability of the analysis. In this study this criteria was not given serious consideration and attempts were not made to select only articles written by native speakers within these disciplines as Mauranen (2001) argues for intercultural understanding and fairness in treating cultural variations in texts produced by bicultural and bilingual writers. She also states that the teaching of academic genres should not be constrained by any one restricted cultural norm such as the Anglo-American (p.54). Therefore it was deemed unnecessary to pay exclusive attention to writing practices of just the native speakers writing in these disciplines.

3.3 Overview of the Analysis

I conducted a two stage analysis on the present corpus First, I Move analysed the abstracts and the various sections of the RAs in the three disciplines. I aimed here, to provide a description of the rhetorical structure of the abstracts and the various sections of the RAs to identify an overall representative structure of RAs in the particular disciplines. Second, I conducted a linguistic analysis of the titles to identify the overall structure and the constituent elements of titles within these disciplines. I then read the new knowledge claims to determine how writers in these disciplines go about proclaiming new knowledge in their RAs.

3.4 Coding Scheme

A coding scheme was developed to provide operational criteria for identifying the rhetorical moves in the texts. The list of moves and their elements was based on rhetorical moves identified by previous move based analyses of abstracts and the various sections of the RAs (e.g. Lores 2004; Slager-Meyer (1990); Bhatia (1993); Hyland (2000); Samraj (2002); Stotesbury (2003); Martin (2003); Swales, (2004); Lim, (2006); Ngowu (1997); and Ruiying & Allison, (2003) and a pilot study (in consulting with a colleague who served as a co- rater) conducted on 9 RAs (3 RAs from each of these disciplines selected at random) to get an overall view or a feel of the macro structure of the abstracts and the various sections. This coding scheme is delineated below.

Coding scheme for abstracts

Move Step	**Edp**	**EnP**	**EcP**
Introduction			
Move 1: Establishing a territory *Topic generalization of increasing specificity*			
Move 2: Establishing a niche *Step 1A : Indicating a gap*			
Move 3: Presenting the present work *Step 1: Announcing present research descriptively and/or purposively* *Step 2: Presenting RQs and hypothesis*			
Methods			
Move 1: Background information			
Move 2: Describing sample/ sampling procedure/s			
Move 3:Stating tools and data measures			
Move 4: Stating data collection procedures collection			
Move 5: Stating data analysis procedure/s			

Results			
Move 1: Preparatory Information			
Move 2: Reporting Results			
Move 3: Commenting on Results			
Conclusion			
Move 1: Background information			
Move 2: Summarizing the study			
Move 3: Evaluating the study			
Move 4 Deductions from research			

Coding Scheme for Introductions

The coding scheme used for the Introduction sections is Swales's (2004) revised CARS model.

Move Step	**Edp**	**EnP**	**EcP**
Introduction			
Move 1: Establishing a territory *Topic generalization of increasing specificity*			
Move 2: Establishing a niche (citations possible) *Step 1A Indicating a gap* or *Step 1B : Adding to what is known* *Step 2 : Presenting positive justification*			
Move 3: Presenting the present work (citations possible) *Step 1: Announcing present research descriptively and/or purposively* *Step 2: Presenting RQs and hypothesis* *Step 3: Definitional clarifications* *Step 4: Summarizing methods* *Step 5: Announcing principal outcomes* *Step 6: Stating the value of the present research* *Step 7: Outlining the structure of the paper*			

Coding Scheme for Methods

Move Step	**Edp**	**EnP**	**EcP**
Methods			
Move 1: *Step 1: Overview of section*			
Move 2: Detailing sampling procedure/s *Step 1: Describing the sample* *Step 2: Steps in sample selection* *Step 3: Justifying sample selection*			

Move 3: Delineating tools and data measures *Step 1: Specifying tools used for data collection* *Step 2: Explaining method/s of measuring variables*			
Move 4: Detailing data collection procedures collection *Step 1: Describing data collection procedures*			
Move 5: Elucidating data analysis procedure/s *Step 1: Relating (or 'recounting') data analysis procedure/s* *Step 2: Justifying the data analysis procedures* *Step 3: Stating/procedures followed for data analysis*			

Coding Scheme for Results Section

Move Step	Edp	EnP	EcP
Results			
Move 1: Preparatory Information			
Move 2: Reporting Results			
Move 3: Commenting on Results *3s1 Interpreting Results* *3s2 Comparing Results with literature* *3s3 Accounting for results* *3s4 Evaluating results*			

Coding Scheme for Discussion Section

Move Step	Edp	EnP	EcP
Discussion			
Move 1: Background information			
Move 2: Reporting on results			
Move 3: Commenting on results 3.1 *Interpreting results* 3.2 *Comparing results with lit* 3.3. *Accounting for results* 3.4. *Evaluating results*			
Move 4: Evaluating study 4.1 *Indicating limitations* *4.2 Indicating significance*			
Move 5: Deductions from the research 5.1 *Making suggestions* *5.2 Recommending further research* *5.3 Drawing pedagogic implications*			

Coding Scheme for Conclusion Section

Move Step	Edp	EnP	EcP
Conclusion			
Move 1: Background information			
Move 2: Summarizing the study *Step 1: Restating major findings* *Step 2: Interpreting major findings* *Step 3: Comparing with previous findings* *Step 4: Accounting for results*			
Move 3: Evaluating the study *Step 1: Indicating significance* *Step 2: Indicating limitation* *Step 3: Evaluating methodology*			
M4 Deductions from research *Step 1: Making suggestions* *Step 2: Recommending further research* *Step 3: Drawing pedagogic Implication*			

3.5 Co-rater

Due to the lack of explicit rules which may result in subjectivity of judgement in delineating move boundaries (Bachman & Palmer, 1996; Gamaroff, 2000 cited in Kanoksilapatham, 2003) and to increase the reliability and empirical validity of the analysis, a colleague was asked to read a subset (45 RAs, 15 RAs from each of the disciplines) of the corpus and identify the rhetorical moves and the subsequent steps in the abstracts and the various sections of the RAs. This reader was also involved in preparing the coding scheme for this analysis. The inclusion of this coder in this phase of the study was in anticipation of an increased accuracy of move identification and analysis.

This coder is a Ph.D candidate in Genre Analysis of RAs in Management at a public university in Malaysia. Her research was undertaken parallel to this study. She was familiar with the literature on genre analysis of RAs and was expected to have the

expertise and experience to analyse the RAs in this study. At the initial stages, after the preparation of the coding scheme, 2 RAs from each of the disciplines were randomly selected and the abstracts and the various sections were coded independently. After the coding the researcher and the coder went through the texts to identify and rectify the coding disagreements that arose. Differences in coding led to discussions and clarifications until an agreement was reached. Upon completion of this stage the coder and I first analysed 45 RAs, 15 each from each of the disciplines. We coded the abstracts first. The Moves and steps were then identified. Both the coder and I then went through the results of the analysis. Differences in coding led to further discussions, negotiations and clarifications until agreement was reached. We then repeated the process for each of the sections in the RAs, coding and discussing until an agreement was reached for one section before proceeding to the next section of the RAs. The whole process of move identification for the first 45 RAs took approximately six months to complete as we were doing the study on a part-time basis. I then analysed the remaining 45 RAs, taking another six months or so, and created the final list of Moves and Steps for the abstracts and the various sections of the RAs across the three disciplines.

3.6 Move Analysis of Abstracts and various sections of the RAs across the three disciplines.

The corpus of 90 RAs from these disciplines was first analysed to determine the move structure of abstracts and the constituting elements within these moves. Then, the overall structure of the RAs and the specific structure of the various sections within these RAs was analysed. As mentioned earlier, the lack of explicit rules for decisions on move boundaries calls for subjectivity of judgment. As such, decisions in this study, regarding the classification of moves were based on Swales' (2004) observation that a

"move in genre analysis is a discoursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse. Although it has sometimes been aligned with a grammatical unit such as a sentence, utterance or paragraph, it is better seen as flexible in terms of its linguistic realization. At one extreme, it can be realized by a clause; at the other by several sentences. It is a functional not a formal unit" (pp. 228-229). Such decisions therefore, were made based on the basis of linguistic evidence and comprehension of text. The abstracts and the various sections of the RAs were first copied and pasted on to separate files to provide a subcorpus containing the various sections to be analysed. The moves were identified and then labeled at the beginning of each move. Given below is a sample of an abstract and an introduction to illustrate how the move analysis was conducted.

> **1.** ***I*** *The present study was carried out* ***M(M2)*** *on a sample of residents of three Italian cities to pursue* ***(3S1)*** *two aims: (a) to explore the relationship between the images of the community of residence and sense of community, and (b) to investigate the relationship between self and neighborhood images.* **2**. ***M(M3)*** *In order to identify neighborhood and self-image, free associations of words to the statements "my neighborhood is" and "I am" underwent a cluster analysis; then a correspondence analysis between these two types of representations and the sense of community level was performed.* **3**. ***R(M2)*** *Results showed a relationship between the subjective image of the neighborhood and sense of community, but did not point out a clear relation between self and neighborhood images.* **4**. ***C*** *Theoretical and empirical implications are discussed.* EnP 2

This is an abstract with 121 words in four sentences (sentence numbers and move labels have been added). In it, sentence 1 carries the aims of the study with a methods move, (description of the location of the sample) embedded in it. Sentence 2 carries the Methods move again with a description of data measures. Sentence three carries the Results Move and reports the results obtained from the study. Sentence 4 carries the Conclusion move. This abstract therefore has the I(M)-M-R-C structure.

The introduction below contains fourteen moves and falls in the intermediate range of move cycles in the corpus of EdP introductions (sentence numbers and move labels have been added).

> ***1 (M1)*** *The construct of self-efficacy has received considerable attention from educational researchers during the past two decades, and researchers have reported that these beliefs that students hold about their abilities to perform academic tasks or succeed in academic activities powerfully influence their academic performances (R).* ***2*** *Students' self-efficacy beliefs have been linked to achievement in such critical academic areas as reading and writing (R), mathematics (R), and science (R).* ***3*** *Self-efficacy beliefs also predict students' college major and career choices (R) and are associated with key motivation constructs such as self-regulation (R), achievement goal orientation (R), causal attributions (R), and self-concept (R).*
>
> ***4*** *Students who believe they can succeed academically tend to show greater interest in academic work, set higher goals, put forth greater effort, and show more resilience when they encounter difficulties (R).* ***5*** *Students who feel confident in their academic abilities tend to engage in challenging activities that lead to greater competence.* ***6*** *In short, students' self-efficacy beliefs play an integral role in their academic motivation, learning, and achievement (R).*
>
> ***7(R)*** *hypothesized that students form their self-efficacy beliefs by interpreting information from at least four sources, the most powerful of which is the interpreted result of one's own previous attainment in a related task or area, or mastery experience.* ***8*** *After students complete an academic task, they quite naturally must interpret and evaluate the results obtained.* ***9*** *Judgments of competence are then created or revised according to those interpretations.* ***10*** *When students believe that their efforts have been successful, their confidence to successfully accomplish similar or related tasks in the future is raised; when they believe that their efforts failed to produce the effect desired, confidence to succeed in similar endeavors is diminished.* ***11*** *Experienced mastery in a domain has long-lasting effects on one's self-efficacy.*
>
> ***12*** *Self-efficacy beliefs are informed only when experienced events and the results of actions are cognitively appraised (R).* ***13*** *As regards mastery experiences, for example, researchers have shown that perceptions of such mastery are better predictors of self-efficacy than are objective results (R).* ***14*** *A routine classroom scenario illustrates this phenomenon.* ***15*** *Imagine two students who put forth great effort on a mathematics exam and both earn B's.* ***16*** *Amanda, accustomed to receiving A's, views her B with disappointment and begins to wonder whether, in light of the effort she put forth, she is as capable as she had thought.* ***17*** *In this case, receiving a B has the effect of shaking her self-efficacy in mathematics.* ***18*** *Maria, on the other hand, has struggled all semester only to earn C's throughout.* ***19*** *Unlike Amanda, Maria beams at her B and begins to believe that her*

mathematical prowess is growing. ***20*** *For Maria, the B becomes a self-efficacy building experience.* ***21*** *As (R) pointed out, "the same level of performance success may raise, leave unaffected, or lower perceived self-efficacy depending on how various personal and situational contributions are interpreted and weighted".*

22 *In addition to interpreting the results of their actions, students also build their self-efficacy beliefs through the vicarious experience of observing the actions of others.* ***23*** *It is for this reason that models can play a powerful role in the development of self-efficacy.* ***24*** *Students are most likely to alter their beliefs following a model's success or failure to the degree that they feel similar to the model in the area in question (R).* ***25*** *Watching a similarly perceived classmate succeed at a challenging academic task may convince uncertain students that they also can succeed.* ***26*** *Indeed, vicarious information is most influential when students are uncertain about their own abilities or have limited experience with the academic task at hand (R).*

27 *The third source of self-efficacy information consists of the social persuasions that individuals receive from significant others.* ***28*** *Students, especially those not yet skilled at making accurate self-appraisals, depend on others to provide evaluative feedback, judgments, and appraisals about their academic performance.* ***29*** *The encouragement students receive from parents, teachers, and peers whom they trust can boost confidence in academic capabilities.* ***30*** *Of course, social persuasions are limited in their ability to create enduring increases in self-efficacy.* ***31*** *(R) cautioned that it may actually be easier to undermine an individual's self-efficacy through social persuasions than to enhance it.* ***32*** *Nonetheless, supportive messages and encouragement can serve to bolster students' effort and self-confidence, particularly when accompanied by conditions and instruction that help bring about success.*

33 *Self-efficacy beliefs are also informed by emotional and physiological states such as arousal, anxiety, stress, and fatigue, and this is the fourth source of information.* ***34*** *Students often interpret their physiological arousal as an indicator of personal competence.* ***35*** *Feelings of anxiety toward academic tasks work to undermine students' beliefs in their academic capability.* ***36*** *Strong emotional reactions to school-related tasks can provide cues to students' expected success or failure.* ***37*** *In general, increasing individuals' physical and emotional well-being and reducing negative emotional states strengthens self-efficacy.*

38 (M2S1A) *Although a number of studies have investigated the sources of self-efficacy, findings have not been consistent.* ***39 (M1)*** *In line with (R) theorizing, most researchers who have investigated the relationship between self-efficacy and its hypothesized sources have found that each correlates with self-efficacy (R).* ***40*** *Some researchers, however, have not found such consistent relations.* ***41*** *For example, (R) found that vicarious experience and physiological state did not correlate with mathematics self-efficacy in a sample of 50 high school students.* ***42*** *And (R) found that only mastery and vicarious experience correlated with self-efficacy for learning in a sample of 50 learning disabled high school students.*

43 *Correlations between the sources themselves have ranged from .20 to .78 (R).* ***44*** *Such correlations are not surprising given that the sources informing self-efficacy are often intertwined.* ***45*** *A student who writes a masterful essay will probably earn top marks, receive praise from others, and experience positive feelings toward writing.* ***46*** *In many cases, such students have been exposed to models proficient at writing.* ***47*** *The student will surely approach writing tasks with a strong sense of efficacy gained from the combined effects of these sources.*

48 *Mastery experience is posited to be the most influential source of self-efficacy information (R), and there is empirical evidence to support this contention (R).* ***49*** *Results of regression analyses reveal that mastery experience yields β coefficients ranging from .28 to .57 (R).* ***50*** *In a sample of 138 college students, ( ) found that mastery experience contributed 36% to the prediction of mathematics self-efficacy whereas the other three sources combined predicted only 2%.* ***51*** ***(M2S1A)*** *It bears noting that, in some cases, researchers have operationalized this important source in terms of previous performance indexes such as grades obtained.* ***52*** *This is a problematic practice.* ***53*** ***(M1)*** *Recall (R) caution that experienced events such as previous performance serve to inform self-efficacy beliefs only when these events are cognitively appraised.*

54 *With the notable exception of mastery experiences proving the stronger predictor of self-efficacy, previous studies of the sources have yielded inconsistent results.* ***55*** *For example, some researchers have reported that vicarious experience makes an independent contribution to self-efficacy (R).* ***56*** *Others have reported no such influence (R).* ***57*** *And, although (R) reported that social persuasions were predictive of self-efficacy for Indo-Canadian students, no other researchers have found social persuasions to predict self-efficacy (R).* ***58*** *(R) reported that social persuasions predicted the social confidence of undergraduate men but did not predict men's or women's social self-efficacy.* ***59*** *Some researchers have reported that physiological state predicts self-efficacy (R); others have found no such relationship (R).*

60 *These inconsistent findings can perhaps be explained by the methodological choices made in the various studies.* ***61*** *Some researchers have used stepwise or hierarchical regression models in which variables are entered according to what they refer to as a theoretical description of their relative potency (R).* ***62*** *In such cases, mastery experience is always entered first, with vicarious experience, social persuasions, and physiological state following, in that order.* ***63*** *This methodological choice was made even when correlations between the sources did not match this presumed order.* ***64*** ***(M2S1A)*** *Such ordering actually has no theoretical support.* ***65*** *Although (R) contends that interpreted mastery experience is the most powerful source of efficacy-building information, he makes no claims about the relative contribution of the other three sources.* ***66*** *Such problematic methodological practices have made it difficult to sift out the independent contribution each source makes to the prediction of self-efficacy.*

67 (M1) *Researchers have also reported that the effects of the sources differ as a function of group membership, particularly gender.* ***68*** *Among high school and college students, women report stronger vicarious experiences and social persuasions than do men (R).* ***69*** *(R) discovered this phenomenon in a qualitative analysis of the personal stories of 15 women who excelled at careers in mathematics, science, and technology.* ***70*** *The women were asked to describe who and what influenced their career paths.* ***71*** *Their stories revealed that vicarious experience and social persuasions powerfully influenced women's confidence in these male-dominated fields.* ***72*** *The researchers proposed that, in addition to judging their own capabilities, women also rely on a "relational efficacy" (p. 239) based on the confidence others have in them.* ***73*** *The messages women receive from those whose opinions they hold in high regard serve as important contributors to women's personal efficacy beliefs.* ***74 (M2S1A)*** *These findings notwithstanding, researchers have not quantitatively traced the influence of the sources as a function of gender.*

75 (M1)*The sources of self-efficacy have also been shown to differ for students of varying ability level.* ***76*** *Learning disabled students report weaker mastery experience, vicarious experience, and social persuasions, as well as higher anxiety, than do regular education students (R).* ***77*** *(R), using a problematic forward regression analysis, reported that only mastery and vicarious experience predicted the academic self-efficacy beliefs of 50 high school students with learning disabilities.* ***78*** *Perhaps more problematic, the 11-item academic self-efficacy scale was actually a measure of students' beliefs in their ability to use self-regulatory strategies in academic tasks rather than beliefs in their academic competence (R).* ***79*** *Researchers have also used structural equation modeling to show that learning disability status indirectly affects self-efficacy through its influence on the four sources (R).* ***80 (M2S1A)*** *Because an aggregate score of the four sources of self-efficacy was used in this analysis, however, the specific contribution of each source was not traced.*

81 *Although the sources of self-efficacy appear to vary as a function of gender and ability level, they have scarcely been explored by race or ethnicity.* ***82 (M1)*** *There is reason to believe that different motivational patterns are at work for different racial or ethnic groups.* ***83*** *(R) reported that African American students retain optimistic beliefs despite what she refers to as "achievement failure" (p. 95).* ***84*** *It may well be that these optimistic beliefs, particularly as regards confidence in academic tasks and domains, are nourished by different sources.* ***85*** *African American students may respond more strongly to the social persuasions they receive in school as part of an encouraging atmosphere rather than to the cognitive appraisal of mastery experiences of which they have fewer.* ***86*** *(R) urged researchers interested in African American students' motivation to shift their empirical focus to one that will help uncover the antecedents of the robust self-beliefs these students hold.* ***87*** *(R) found that ethnicity played a role in how Grade 7 students interpret the sources of self-efficacy for mathematics.* ***88*** *Indo-Canadian (immigrant) students reported receiving more information from vicarious influences and social persuasions than did their Anglo-Canadian peers, suggesting that these*

students experience a more "other-oriented" than "self-oriented" formation of self-efficacy.

89 *In addition to academic and subject-specific self-efficacy beliefs, students' beliefs that they possess the self-regulatory strategies needed for academic success have been prominent in studies of academic motivation (R).* ***90*** *Students who are confident in their self-regulatory abilities believe they are capable of employing the metacognitive skills required to implement strategies and manage resources necessary to effectively perform a task (R).* ***91*** *In simpler terms, good self-regulators believe themselves capable of monitoring their own progress.* ***92*** *Given that students who demonstrate high self-regulatory efficacy tend display similar beliefs in their academic capabilities (R), the sources informing self-efficacy beliefs for self-regulation are theoretically tangential to the sources informing academic self-efficacy (R).* ***93*** *In fact, (R) recently suggested that teachers should carefully attend to these sources when helping students increase their academic and self-regulatory self-efficacy (R).*

94 (M3S6) *Exploring the predictive value of the sources of students' academic self-efficacy beliefs and determining whether this prediction varies as a function of group membership such as gender, academic ability, and race/ethnicity is a matter of import.* ***95*** *Of course, empirical findings are required to buttress (R) theoretical tenets regarding the formation of self-efficacy beliefs.* ***96*** *Moreover, if the sources predict self-efficacy differently for boys and girls, for students of varying ability level, or for students of minority race or ethnicity, then attending differently to the different sources in schooling practices and academic interventions is warranted.*

97 (M3S1) *Thus, in keeping with the theoretical tenets of social cognitive theory and prior research findings earlier reviewed, the purpose of this study was to examine the influence of the four hypothesized sources of self-efficacy on students' beliefs about their academic capabilities and self-regulatory strategies.* ***98 (M3S2)*** *In addition, we aimed to explore how the sources informing self-efficacy may differ as a function of gender, academic ability level, and race/ethnicity.* ***99 (M3S3)*** *Academic ability was operationalized as differences in reading ability level, a decision prompted by the critical place of reading in the overall academic curriculum of a middle school and by the often-reported finding that students weak in reading tend to be weak in most academic subjects (R).* ***100*** *We selected academic self-efficacy rather than subject-specific self-efficacy because the academic domain measurement of self-efficacy parallels the level of generality at which self-efficacy for self-regulation is traditionally assessed.* ***101(M3S4)*** *To correspond with these assessments, the sources were also measured at an academic domain-specific level (R).*

102 (M1) *In most school systems, Grade 6 is the year when the personalized environment of elementary school shifts to the more impersonal, institutional environment of middle school.* ***103*** *This shift leaves many early adolescents struggling to reestablish their sense of self and reevaluating their academic self-beliefs (R).* ***104 (M3S6)*** *Clearly, this*

is a critical time for researchers to examine how the sources of academic self-efficacy unique to young adolescents influence the development of their self-beliefs. EdP 9

This is an introduction with about 2289 words in 104 sentences and 19 paragraphs. In it, sentences 1 to 81 carry Moves 1 and 2 over a 10 move cycle each occurring five times. Sentences thirty eight; fifty one to fifty two, sixty four to sixty six; seventy four, and eighty to eighty one contain Move 2 Step 1A which is of the gap indication type. There is no intrusion of Move 3 elements up to this stage. Sentences 82 to 104 carry Moves 1 and 3 over a four move cycle, employing three steps in Move 3, specifically Step 6 in sentence 94; Step 1 in sentence 97, Step 2 in sentence 98; Step 3 in sentence 99 and a step 6 again in sentence 104.

A similar procedure was followed to identify the moves and steps in the abstracts and other sections of the RAs across the three disciplines**.** Following Kanoksilapatham (2003), a move was considered obligatory if it occurred in 60% or more of the RAs that were analysed. Otherwise it is considered as either an optional or an occasional element.

3.7 Linguistic Analysis of new knowledge claims and titles

The corpus for identification of the internal structure of titles was made up of the 90 titles of the selected RAs and was analysed in terms of the overall structure of the titles and the internal linguistic elements within these structures using the framework in Haggan (2004).

The corpus for the identification of how new knowledge claims are structured consisted of the Introduction sections of these RAs. The selection of the Introduction sections is due to the frequent occurrence of Move 2: Step 2 *: Presenting positive justification* and

M3 Step 6: *Stating the value of the present research* as identified in the Move analysis. These steps are intended to proclaim new knowledge and writers in these disciplines appeared to do so in the Introductions more than in the other sections. Going through the whole section manually for the Move analysis in the earlier part of this study, made the task of identifying these elements easier. The Discussion and Conclusion section of RAs where M3S6 was absent in the Introductions were also included in this analysis. The Move sequence that was identified was then analysed manually through several readings to identify the internal structure of such new knowledge claims, looking for in particular, the structure of the claim sequences, metadiscursive features within these structures and the use of hedges based on the framework in Dahl (2008).

3.8 Conclusion

In this chapter I described the corpus and method of analysis of the macro and internal structure of the abstracts and the various sections of the RAs and the linguistic elements of interest in this study across the three disciplines. The results of this analysis are presented and discussed in the next chapter.