CHAPTER 7

Conclusion

7.1 Introduction

In this final chapter I conclude the dissertation by first synthesizing the findings and proposing a model for writing each of the sections in RAs across the three disciplines followed by a summary of the findings on the the linguistic elements selected for this study. Then, I will discuss some theoretical, empirical and pedagogical implications contributed by the study before concluding with limitations of the study and directions for further research.

7.2 Proposed model for writing RAs across the three disciplines

Based on the occurrence of each move and step analysed and highlighted in Chapter 5, in the following sections, a model is proposed for writing each of the sections in RAs in EdP, EnP and EcP.

7.2.1 Writing Abstracts in educational psychology

The EdP abstracts may be written in a minimum of 114 words and a maximum of 166 words, averaging at 138 words. Written in one paragraph, the linear structure: Introduction – Method- Results - Conclusion - is the preferred structure. In cases where there are more than one study being reported the abstracts may recycle the introduction and methods moves.

The most fundamental and obligatory element of the Introduction Move is to announce the present research descriptively and/or purposively followed by resenting RQs or

hypotheses. Writers may also state the gap in available literature that prompts their study.

In writing Methods, the description of the sample is an important element followed by descriptions of tools and data measures. Data analysis procedures and data collection procedures are optional elements. The methods section may occur as a completely independent unit and may also be coalesced with the introduction and the results move.

In the results move, the results of a study are presented, normally with relevant evidence such as statistics and examples.

The concluding move signals that the implications of the study and that suggestions for future research will be discussed. Included in this move are comments on the result that is reported. This statement extends the scope of the results that is obtained by relating it to what is already known in the area of investigation. Also included is a statement on the implications of the results.

7.2.2 Writing Abstracts in environmental psychology

The EnP abstracts may be written in a minimum of 116 words and a maximum of 298 words, averaging at 182 words. Written in one paragraph the linear structure: Introduction – Method- Results- Conclusion is the preferred structure. In cases where there are more than one study being reported the abstracts may recycle the introduction and methods moves.

The most fundamental and obligatory element of the Introduction Move is to announce the present research descriptively and/or purposively followed by resenting RQs or

hypotheses. Writers may also state the gap in available literature that prompts their study

In writing Methods, the description of the sample is an important element followed by descriptions of tools and data measures. Data analysis procedures and data collection procedures are optional elements. The methods section may occur as a completely independent unit and may also be coalesced with the introduction and the results move.

In the results move, the results of a study are presented, normally with relevant evidence such as statistics and examples.

The concluding move signals that the implications of the study and that suggestions for future research will be discussed. Included in this move are comments on the result that is reported. This statement extends the scope of the results that is obtained by relating it to what is already known in the area of investigation. Also included is a statement on the implications of the results.

7.2.3. Writing Abstracts in economic psychology

The EcP abstracts may be written in a minimum of 72 words and a maximum of 224 words, averaging at 149 words. Written in one paragraph the linear structure: Introduction – Method- Results is the most preferred structure. In cases where there are more than one study is reported the abstracts may recycle the introduction and methods moves.

The most fundamental and obligatory element of the Introduction Move is to announce present research descriptively and/or purposively followed by resenting RQs or

hypotheses. Writers may also state the gap in available literature that prompts their study

In writing Methods, the description of the sample is an important element followed by descriptions of tools and data measures. Data analysis procedures and data collection procedures are optional elements. The methods section may occurs as a completely independent unit and is also coalesced with the introduction and the results move.

In the results move, the results of a study are presented, normally with relevant evidence such as statistics and examples.

The concluding move signals that the implications of the study and that suggestions for future research will be discussed. Included in this move are comments on the result that is reported. This statement extends the scope of the results that is obtained by relating it to what is already known in the area of investigation. Also included is a statement on the implications of the results.

7.2.4 Writing Introductions in educational psychology

As noted in Graesser (2009), the fundamental goal educational psychology is to develop, test, and refine theories of the psychological mechanisms relevant to education. These mechanisms span cognition, motivation, emotion, discourse, social interaction, personality, development, neuroscience, and their complex interactions. It concerns itself with advancing knowledge that test models, principles, hypotheses, and claims that are grounded theoretically. It is necessary is to identify the situations in which there is support versus lack of support for theoretically grounded principles. Researchers concern themselves with topics such as: Implicit writing beliefs and their relation to

writing quality; Understanding managerial problem-solving, knowledge use and information processing: Investigating stages from school to the workplace; Knowing and teaching fractions: A cross-cultural study of American and Chinese mathematics teachers; Students' experiences of home–school dissonance: The role of school academic culture and perceptions of classroom goal structures and Characteristics of students who benefit from high-quality mathematics instruction

These are found in leading journals related to the field. The mission of *Contemporary Educational Psychology,* for instance, is to report new data and empirical analyses that advance psychological theory, not to debate theoretical, philosophical, and practical questions about education. These elements are indeed elaborated in the introduction section.

The analyses of the introductions in the corpus clearly show that the community of writers in EdP do not employ the M1-M2-M3 move structure in writing the introductions. It is possible to use much recycling for elaboration and reader comprehension purposes. Writers in EdP usually address more than one gap in the available literature thus resulting in recycling of moves. The number of move cycles may depend on the elaborative purposes of the writer and as the results indicate it can range from a maximum of twenty nine moves to a minimum of three moves, with introductions containing fourteen moves falling in the intermediate range. The table below postulates a model for EdP introductions.

Table 7. 1: Proposed Model for Introductions in educational psychology

Move 1	**Establishing a territory (citations obligatory)** *Topic generalization of increasing specificity* **(obligatory)**
Move 2	**Establishing a niche (citations possible)** *Step 1A: Indicating a gap* **(obligatory)** *Step 2 : Presenting positive justification* **(optional)**
Move 3	**Presenting the present work (citations possible)** *Step 1 Announcing present research descriptively and/or purposively* (**obligatory)** *Step 2: Presenting RQs and hypothesis* **(obligatory)** *Step 3 Definitional clarifications* **(optional)** *Step 4: Summarizing methods* **(obligatory)** *Step 5: Announcing principal outcomes* ***(not probable)*** *Step 6 : Stating the value of the present research* ***(obligatory)*** *Step 7 : Outlining the structure of the paper* **(not probable)**

Move 1- Topic generalizations of increasing specificity.

This move is usually used as the opening move and occupies an important position in the introductions. This move may also be used to subordinate and aid in the realization of constituent steps in Move 2 and Move 3 resulting in the cyclical nature of the introductions. In employing Move 1, writers in EdP usually establish the territory by asserting the importance of the topic being discussed and/or by highlighting the intensity of research in the area concerned and as such citations are obligatory. The level of specificity increases as the discussion of the particular topic of interest proceeds. The excerpt below illustrates how these writers compare American and Asian childrens' mathematical achievement and how this is brought about by teacher expertise by reviewing past studies and relevant theories as a buildup to revealing the gap in the research world; whether Asian teachers are more knowledgeable and skilled in teaching mathematics than U.S. teachers.

For the past two decades, cross-cultural studies comparing American and Asian (i.e., Chinese, Japanese, and Korean) children's mathematical achievement have shown that …..Another possible explanation of cross-cultural differences in mathematics achievement is teacher expertise. Asian teachers may have ……..

1.1. Theories of teacher expertise

There are several theories on expertise in teaching ….(R) postulated that teacher expertise is defined by subject matter knowledge and knowledge of the organization and management of a classroom. (R) analysis of the literature yielded several propositions regarding …… (R) *identified three differences between expert and novice teachers. Expert teachers' knowledge is more extensive, accessible, and organized for use in teaching than novice teachers'. Expert teachers solve problems more efficiently within their domain of expertise and do so with little or no cognitive effort. They engage more readily in high-order metacognitive or executive processes, such as planning, monitoring, and evaluating on-going efforts at problem solving. Finally, expert teachers have more insight. They are more likely to identify information that is relevant to the solution of problems, and are able to reorganize domain knowledge to reformulate problem representations. Often the solutions they arrive at are…..* EdP 3

Move 1 with Move 2 Step 1A

Move 1 may be used before M2 Step 1A as a prelude to indicate the lack of knowledge or weaknesses in previous research in a certain area of investigation. It may also be used after Move 2 Step 1A to provide support for and or elaborate on the claim that there is indeed a gap in research in a certain area of investigation as in the example below where the writers review the relevant literature on expertise on how learners make progress and how the relevant studies to date have used a particular approach, in this case a dichotomus approach, and excluded certain subjects, which could be problematic.

Research on expertise examines how learners make progress in the .....Many studies on expertise have focused on differences between the lowest ('novices') and highest expertise levels (R). Many of these studies, however, used a dichotomous approach and consequently had difficulties extrapolating practical implications from their

results, as these studies did not include intermediate participant levels—such as students (R). EdP 1

As in the excerpt below the writers highlight the little that is known concerning the influence of motivational variables in the process of reading compelling texts and the follow on with statements regarding the importance of such knowledge.

Yet, very little is known ……. Although early attempts to understand persuasion primarily focused on the content of a message, it is now acknowledged that ……. According to some researchers, …… EdP 22

Move 1 may also be used before and after the constituent Steps in Move 3.

Move 1 with Move 3 Step 1

Move 1 may be used before M3 Step 1 to limit the scope of the study or to state the particular focus of the study in relation to previous studies, to show how the study that is being reported is an extension of previous work, to justify the selection of a particular model, theory or hypothesis in the area, to state the limitation of the present study and to justify the purpose of the study that is being reported. For instance, in the example below the writers review the literature regarding a particular problem (traversing the boundary between home and school is a difficult and dissonant experience for adoloscents) and then go on to state their intention to address the problem

Many adolescents perceive little overlap between home and school cultures and feel that they do not fit in with their peers and classmates at school (R). For these adolescents, traversing the boundary between home and school is a difficult and dissonant experience. The primary purpose of this study is to …….. EdP 4

Move 3 Step 1 with Move 1

Move 1 may be used after Move 3 Step 1 to elaborate or explain the theory that is selected for the study that is being reported and to justify the selection of particular variables that are of interest in the study. In the example below the writers state their intent (to determine the characteristics of students who take advantage of the opportunity to learn Algebra II from a highly skilled teacher) and then justify their purpose by stating how purposeful their work will be.

> *As noted, the primary purpose of the present study was to determine ….. If a teacher is both highly-qualified and conducting her class in a manner consistent with the literature on effective mathematics teaching.…..* EdP 7

Move 1 with Move 3 Step2

Move 1 may also be used with Move 3 Step 2. It is basically used to cite previous results as evidence that form the basis for the formulation of hypotheses or research questions in their study as in the example below where the writers first explain a theory to justify their selection of hypotheses

> *According to anthropomorphism and social agency theory ……. Thus, in the present study, we …..… test the following two hypotheses…* EdP 12

Move 1 with Move 3 Step 4

Move 1 may also used with Move 3 Step 4. It may be used to justify the selection of the time frame or model for the study, and/or to provide support for the selection of variables in the study as in this example below.

> *During kindergarten, especially the second semester…., and, thus, is the time period selected for this investigation.* EdP 6

Move 1 with M 3 Step 6

Move 1 may also be used with Move 3 Step 6. It is usually used to justify the urgent need for the present research (*that low-income, minority students are less likely to attain post-secondary education and more likely to experience high school dropout)* and to show the significance of the present study.

> *Considering that low-income, minority students are less likely to attain post-secondary education and more likely to experience high school dropout (R), we need more research that focuses on the factors that help low-income, minority students successfully navigate the transition to high school.* EdP 9

Move 2 Step 1A and Step 2

Move 2 Step 1A is obligatory and by employing this step, writers make their research significant by pointing out a gap, limitation, weakness, or what is lacking in previous research. There may be more than one gap statement in an article. In the example below the writers problematise the issue that is being discussed by stating what has not been addressed in research in a particular area of educational psychology.

> *To date, **these three skills have rarely been assessed** in the same study..... with kindergarten children at the earliest stages of reading. Thus, their interrelationships are not known. Another factor that **has received little attention** is the..* *EdP 6*

Writers may also explicitly provide positive reasons (Move 2 Step 2) for conducting the study, or state the value of the research that is being reported, immediately after pointing out a gap, limitation or weakness in previous research. In this example the writers provide justification for the need to address the gap in available research.

> *None of these studies explicitly sought to .... To further understand the interaction between student characteristics and instructional strategies, additional research is needed on ...* EdP 15

Move 3 Step 1

The step - announcing present research descriptively and/or purposively is an obligatory element in EdP Introductions as the writers potray their intention to report on new data related to educational psychology. This step maybe be used more than once and appear at different parts of the introduction depending on the purpose(s) of the research that is being reported as observed in the RA in the example below which has five main purposes.

> *The primary purpose of this study is to ….Further, this paper explores the psychological processes that ….*
>
> *This study examines the academic culture of the learning environment within the framework of achievement goal theory proposed .....*
>
> *The current study proposes to extend the implications of this theory.*
>
> *The plausibility of this hypothesis is examined based on ....* EdP 4

In employing Move 3 Step 2- presenting research questions or hypothesis - which is an obligatory element, writers need to explicitly state the research questions posed or the hypotheses formulated. Writers in EdP either state research questions or hypotheses or may include both these elements as in the following example.

> *In particular, we were interested in examining the following research questions:*
>
> *1. Is it possible to … ?*
> *2. Do students, in general….?*
> *3. Are there systematic….?*
> *In our study, we hypothesized that….* EdP 8

Move 3 Step 3 – definitional clarifications is an optional element. There may be one or more definitional clarifications as in the following introduction.

> *As these examples are intended to illustrate, we define a flexible solver as one who (a) has knowledge of multiple solution*

procedures, and (b) has the capacity to invent or innovate to create new procedures. With respect to (a), it is perhaps obvious that a flexible solver should have broad knowledge of procedures in a domain.

With respect to assessing the capacity for invention, two important clarifications are relevant. First, the capacity …..Second, invention, as defined here, is not intended to…..… EdP 5

Move 3 Step 4 - summarizing methods - is an obligatory element. In employing this Step, writers provide a summary of the methods that were employed which may include the subjects, the site of research, time of data collection, instruments, variables and data analysis procedures.

The second semester of kindergarten *is a time when students would be expected to exhibit significant growth in sublexical skills, and, thus, is the time period selected for this investigation.* ***Ninety-two kindergarten*** *children were studied to* ***examine the role of sublexical fluency*** *in the development of early word reading and spelling across the spring of kindergarten. In addition to receiving the fluency measures* ***every three weeks****, the children also were administered accuracy sublexical measures and literacy (word reading and spelling) measures.*

Growth curve analysis was applied *to multiple waves of data to model individual change by estimating performance level in the middle of kindergarten and determining patterns of growth across the semester. We also examined* ***growth in sublexical fluency as a function of word reading skill in kindergarten.*** EdP 11

Move 3 Step 6– stating the value of the present research- is an obligatory element in which writers state the significance of their research. This step may occur more than once and be located in various parts within the introductions. Given below is one example.

We felt that the pursuit of this additional study was necessary given the conclusions of our narrative review, and believe that our effort may help guide future validity investigations of the AMS scores.

By all accounts, further investigation of the AMS is warranted to feel confident in the scale's use as an assessment tool in motivational research.

Based on the extent to which our alternative measures reflected someone being controlled versus self-determined in their motivation (i.e., being externally versus intrinsically motivated) or reflected someone having some motivation versus no motivation (i.e., extrinsic/intrinsic versus amotivation), we were able to generate a number of clear predictions between these other motivational measures and the subscales of the AMS. EdP 27

7.2.5 Writing Methods in educational psychology

The general trend in terms of Methodology in EdP is , as Graesser (2009) notes, having both a strong empirical foundation and a compelling analytical justification for claims with three methodological approaches. Experiments with multiple comparison conditions, sophisticated measurement models and psychometrics, Learning technologies and novel learning environments. Some methods derived from the corpus include: after completing individual assignments after studying a text participants are asked to make an analysis and a diagnosis, based on the case information; Questionnaire survey - 16 items to be rated on a 5-point Likert type scale according to the degree of agreement and disagreement with each statement; Tests and interviews.

In view of the need for a strong empirical foundation and a compelling analytical justification for claims, the methods sections are written elaborately. The majority of writers in EdP insert one Methods section but an RA may contain up to three Methods sections depending on the number of studies that are reported, as there is a propensity for members of this discourse community to report more than one research in an article. For instance, researchers first study a smaller sample and then take it onto a larger one, test a particular variable before conducting the main study, study the same variables in different contextual surroundings, to replicate (Study 2 was designed to replicate the

results of Study 1), testing different constructs/ variables on a same sample with different instruments/materials, test a preliminary instrument and then test the refined instrument and finally to confirm findings from the refined instrument, longitudinal and cross-sectional components in its design including qualitative and quantitative components.

Further, the Methods section is divided into multiple subsections ranging from 2 to 7 subsections. This section is mainly concerned with providing a detailed description of the research method(s) utilized in experimental research, co-relational research, and causal-comparative studies and are most often given the subheading “Method”, “Methods”, or “Methodology”. Other subheadings used are “Experimental design”, Experimental studies”, “Empirical study", “Design and procedures of the experiment” and “Material and methods”. The 5 moves utilized in realizing this section are: Move 1 - Providing an overview of research method(s), Move 2- Providing details of the sample/population, Move 3- Delineating tools and data measures, Move 4- Detailing data collection procedures and Move 5- Elucidating data analysis procedure/s. The first is optional and the other four are obligatory. The moves identified in this section do not occur in a strictly linear order. The Methods section usually begins with details regarding sampling procedures in case an overview of the research is not given. Also, Move 4 may precede Move 3. In such cases the writers, after detailing the sampling procedures (Move 2), proceed to a description of the procedures used to collect the data (Move 4) and then only go on to describe the tools used and data measures (Move 3). The table below shows the Moves/Steps for writing the Methods section.

Table 7. 2 : Proposed Model for Writing methods in educational psychology

Move 1	**Move 1: Overview of research method(s)** **(optional)**
Move 2	**Move 2: Providing details of the sample/population** **(obligatory)** **Step 1: Describing sample/population** which includes statements on: • location of the sample **(obligatory)** • size of the sample/population **(obligatory)** • specific characteristics of the sample (gender,age etc) **(obligatory)** **Step 2: Describing sampling technique or criterion** **(obligatory)** **Step 3: Stating importance/ advantages/relevance /representativity of sample** **(obligatory)** **Step 4: Stating compensation for participants** **(optional)**
Move 3	**Delineating tools and data measures** **(obligatory)** **Step 1**: **Specifying tools used for data collection** which includes statements on: • source(s) of instruments/ materials **(obligatory)** • description of instrument(s)/ materials **(obligatory)** • examples of items in/material /instruments/databases/interviews **(obligatory)** • importance/ validity/ reliability of instrument/ material **(obligatory)** **Step 2: Elucidating method/s of measuring variables which includes statements on:** • description of methods of measuring variables **(obligatory)** • justification of methods selected/ acceptability of the method/s **(obligatory)**
Move 4	**Detailing data collection procedures** **(obligatory)** **Step 1: Describing data collection procedures** which includes statements on: • time of data collection/administration of instrument **(obligatory)** • administrators of instrument(s) materials/interviews/observations **(optional)** • instructions given or requests made to sample/participants **(optional)** • duration of data collection/experiment **(obligatory)**

	• sequence followed in administration of instrument/material /collection of data **(obligatory)** • specific location of data collection **(optional)** **Step 2: Justifying data collection procedures** **(optional)**
Move 5	**Elucidating data analysis procedure/s** ***(obligatory)*** • **Step 1: Recounting data analysis procedure/s which includes statements on:** • *number of samples instruments/materials/interviews responses collected or analysed* ***(optional)*** • *procedures followed for data analysis* ***(obligatory)*** • *analyzer of data* ***(optional)*** • **Step 2 Justifying data analysis procedure/s** **(optional)**

7.2.6 Writing Results in educational psychology

The results section may be written in a maximum of 5142 words in EdP to a minimum of 507 to a minimum of 507 words and may contain about 6 subsections with the conventional section heading Results. It may contain the moves and steps as in the following table.

Table 7.3: Proposed Model for Writing the Results section in educational psychology

Move 1	**Preparatory information** **(obligatory)**
Move 2	**Reporting results** **(obligatory)**
Move 3	**Commenting on results** **(optional)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results

Move 1 – Preparatory information (obligatory)

This is an obligatory move and its function is to: give a preview of the section or sub-sections before the results are reported, show location of results (tables and graphs) , state the procedures that were followed in arriving at the results, to state the purpose or goal of the research, to state hypothesis/research question**,** and to justify data analyses procedures **.** This move, if present, usually occurs at the beginning of the Results section or at the beginning of the following subsections.

Move 2 – Reporting results (obligatory)

It is a direct and brief statement of the results. Its function is to present the results of a study with relevant evidence such as statistics /percentages /frequencies , and observations , objectively

Move 3 – Commenting on results (optional)

Writers in EdP do not exclusively present the results of the study but also subjectively evaluate and comment on them. Therefore, Move 2 – Reporting results is often accompanied with Move 3- Commenting on results. This move functions to extend beyond the objective results presented in the previous move by indicating the meaning and significance of the results to the relevant field. This involves the interpretation of the results in relation to the purpose of the study, the contribution of the result to the relevant field by comparing the results with that which is already available in related literature, the underlying reasons for the results obtained, and/ or comments about the strengths, limitations and generalizibality of the results. In the corpus, Move 3 typically follows the preceding 'Reporting results' move. Also noted is if a subsection reports more than one result, this move is often interspersed, following the report of each result and this creates a cyclical pattern between these two moves.

Move 3 Step 1 - Interpreting results
Move 3 Step 2- Comparing results with literature
Move 3 Step 3- Evaluating results
Move 3 Step 4 - Accounting for results

A result which is presented in Move 2 may be accompanied by a particular step in Move 3 - M2-M3S1- or by more than one step M2 -3S1-3S2. The co-occurrence of these steps of Move 3 can happen in many possible orders.

Move 3 is an optional element in this section as there are instances where a Move 2 is not followed by a Move 3**.** The results section in EdP is highly cyclical following the M1-M2 cycle followed by the M1-M2-M3 cycle**.** If Move 1 is present as a preview to the sections that follow then the following subsection or cycle begins with a Move 1 then goes on to Moves 2 and 3**.** Where a preview to the Results section is absent the writer begins a subsection with a Move 1, to prepare the reader for the results that is to be announced, and ends the cycle with a Move 3**.** In cases where Move 1 is absent in a subsection then Move 2 is the initial element followed by a Move 3.

7.2.7 Writing the Discussion section in educational psychology

The Discussion section may be written in a maximum of 2718 words in EdP to a minimum of 617 words and may contain about 7 subsections with the conventional section heading *Discussion, General Discussion, and General discussion and educational implications.* It may contain the moves and steps as in the following table.

Table 7.4: Proposed Model for Writing the Discussion section in educational psychology

Move 1	**Background information** **(optional)**
Move 2	**Reporting results** **(optional)**
Move 3	**Commenting on results** **(obligatory)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results
Move 4	**Evaluating the study** Step1: limitation of the study **(obligatory)** Step 2:.significance or contribution of the study **(obligatory)**
Move 5	**Deductions from the research** (Step 1) make suggestions based on their research findings **(optional)** (Step 2) recommend further research **(obligatory)** (Step 3) draw pedagogic implications **(optional)**

Move 1 – Background information (optional)

Its function across the three disciplines includes: situating the research within the wider field; stating the goal/objective/purpose of research, stating research questions/hypothesis, stating major conclusions, stating data collection and data analysis procedures and justifying purpose of a study by indicating a gap that warrants the research.

Move 2 - Reporting on results (optional)

Its purpose is to present the results of a study with relevant evidence such as observations and statistics.

Move 3 - Commenting on results (obligatory)

This move functions to extend beyond the objective results presented in the previous move by indicating the meaning and significance of the results or situate the present research within the relevant field. It is principally a follow up move to the previous "Reporting results' move where the writers highlight their interpretation of the results in relation to the purpose of the study (Move 3 Step 1); the contribution of the result to the relevant field by confirming and / or comparing the results with what is already available in related literature (Move 3 Step 2), the underlying reasons for the results obtained (Move 3 Step 3) and/ or comments about the strengths, limitations and generalizibality of the results(Move 3 Step 4).

Move 4 - Evaluating the study

Writers also evaluate their study (Move 4) by making known their views regarding the weaknesses of the study (Move 4 Step1) and the importance, significance or contribution of the study (Move 4 Step 2).

Move 5 - Deductions from the research

Step 1- make suggestions based on their research findings is an optional element. Step 2- recommend further research is an obligatory element. Step 3- draw pedagogic implications is an optional element. Move 1, if present, is used to open the discussion. In the absence of Move 1, Move 2 or Move 3 are always present and are most likely to open the section/subsection. The cycle usually involves Moves 2 and 3 where writers first report the results and then comment on them. This cycle is repeated if more than one result is presented and discussed. Each cycle may include only one step of Move 3 or may include more than one step of Move 3. Moves 4 and 5 occur less frequently

compared to Moves 2 and 3 and are usually interspersed after a Move 2 or a Move 3 is presented if there is more than one limitation, significance, suggestion or recommendation for further research in the discussion.

7.2.8 Writing the Conclusion section in educational psychology

The conclusion section is optional. Typical headings used are *Conclusions*, *Conclusion and implications*, *Summary and implications*, *Future work and conclusion*, *Future directions and recommendations*, *Final comments and conclusions*, and *Concluding Remarks.* It may contain the moves and steps as in the following table.

Table 7.5: Proposed model for writing the Conclusion section educational psychology

Move 1	**Background information** **(obligatory)**
Move 2	**Summarizing the study** **(obligatory)** Step 1) 'Restating major findings **(obligatory)** Step 2: Interpreting major findings **(obligatory)** Step 3: Comparing with previous findings **(optional)**
Move 3	Move 3 - Evaluating the study (Step 1) 'Indicating significance **(optional)** Step 2 : Indicating limitation **(optional)**
Move 4	**Move 4 – Deductions from research** (Step 1) 'Making suggestions **(optional)** Step 2 'Recommending further research **(obligatory)** Step 3 'Drawing pedagogic Implications **(optional)**

Move 1: Background information i**s** an obligatory element and acts as a reminder where writers restate the importance of the area of investigation, the reason(s) for doing the

research, for instance, by restating gaps in previous research and restate the purpose(s) of the study. The Conclusion section focuses on summarizing the research by highlighting major findings and interpretations, evaluating the study and pointing out future research directions and suggesting implications for teaching and learning.

The results, discussion and conclusion sections may be of interest to: the growing literature in a particular area to strengthen it, instructional implications (particularly teachers) ,educational implications - policy and classroom level, teacher training programs, for use in kindergarten, middle school, high schools, higher education,at the individual level (young children, adoloscents different races (African American students) and curriculum designers.

7.2.9 Writing Introductions in environmental psychology

Canter and Craik (1981) observe that environmental psychology is that area of psychology which brings into conjunction and analyzes the transactions and interrelationships of human experiences and actions with pertinent aspects of the socio-physical surroundings. It is important to emphasize that whilst the field of environmental psychology is clearly an area within psychology, the multi-disciplinary nature of the problems studied inevitably require that the concepts, methods and personnel involved in the field will be drawn from many parent disciplines. It relates to the nature of the complex transactions between people (at the psychological level of analysis) and their built and natural environments, including parks, wilderness, resources, animals, and plants (Gifford 2009). With respect to what are the main research interests in environmental psychology, the bulk of studies examined in Giuliani and Scopelliti (2009) clearly showed the prominence of four areas of inquiry, which can be considered the leading topics in the discipline. First, the study of the residential environment, whether home, domestic surroundings or neighbourhood,

which was addressed from different points of view: people's satisfaction and preferences for their residential environment, as well as sources of stress/discomfort; affective evaluations, attachment and the connection between place experience and the definition of personal identity. Second, the study of environmental cognition, preference and affective evaluation, mainly pursued through an experimental approach in the laboratory setting, and by using simulations of the environment. Third, the study of actual behaviour in the environment (whether natural or built, indoor or outdoor), in which observation is the key method to understand how people use the environment, or react to it. Fourth, the study of nature and global environment, which were taken into consideration by emphasising ecological problems. Researchers concern themselves with topics such as: Homeward bound: Introducing a four-domain model of perceived housing in very old age; Nowhere to hide: Awareness and perceptions of environmental change, and their influence on relationships with place; Direct, indirect influences of income on road traffic noise annoyance; Parental perception of social risk and of positive potentiality of outdoor autonomy for children: The development of two instruments and Explaining pro-environmental behavior with a cognitive theory of stress

The analyses of the introductions in the corpus clearly show that the community of writers in EnP do not employ the M1-M2-M3 move structure in writing the introductions. Since a predominant pattern of move cycles was not observed, it is possible to use much recycling for elaboration and reader comprehension purposes. The number of move cycles may depend on the elaborative purposes of the writer and as the results indicate it can range from a maximum of 18 moves, a minimum of 4 moves, with introductions containing 9 moves falling in the intermediate range. The table below postulates a model for EnP introductions.

Table 7.6 : Proposed model for writing Introductions in environmental psychology

Move 1	**Establishing a territory (citations obligatory)** *Topic generalization of increasing specificity* **(obligatory)**
Move 2	**Establishing a niche (citations possible)** *Step 1A: Indicating a gap* **(obligatory)** *Step 2 : Presenting positive justification* **(optional)**
Move 3	**Presenting the present work (citations possible)** *Step 1 Announcing present research descriptively and/or purposively* (**obligatory)** *Step 2: Presenting RQs and hypothesis* **(obligatory)** *Step 3 Definitional clarifications* **(optional)** *Step 4: Summarizing methods* **(obligatory)** *Step 5: Announcing principal outcomes* ***(not probable)*** *Step 6 : Stating the value of the present research* ***(optional)*** *Step 7* : *Outlining the structure of the paper* **(not probable)**

Move 1- Establishing a Territory - Topic generalizations of increasing specificity.

This move is usually used as the opening move and occupies an important position in the introductions. This move may also be used to subordinate and aid in the realization of constituent steps in Move 2 and Move 3 resulting in the cyclical nature of the introductions.

Writers in EnP usually establish the territory by asserting the importance of the topic being discussed and/or by highlighting the intensity of research in the area concerned and as such citations are obligatory. The level of specificity increases as the discussion of the particular topic of interest proceeds. The excerpt below illustrates how writers review the relevant literature to state the importance of the concern over air pollution and the resulting annoyance among the general public and how prior studies have

addressed this problem as a prelude to indicating the gap(s) in prior research that their study intends to address.

> *Public concern about air pollution appears to have increased over the past decades (R), with annoyance as a common consequence (R). The concept of environmental annoyance is complex and can be considered a perception, an emotion, an attitude or a mixture of these (R). Annoyance is likely to be influenced by risk perception (R) and to effect symptoms of environmental pollution (R). Annoyance can be considered a community problem even when only a small proportion of the population is bothered at rather infrequent occasions.*
>
> *It is typically difficult to make direct comparisons between subjective reports from different individuals,*
>
> *Master scaling has been applied in environmental studies of odor intensity of the single gas component of formaldehyde (R) as well as of complex gas components in a kitchen from frying of cabbage, in a classroom, and in a garbage-treatment plant. Whereas calibrated psychological scales of odor intensity is of importance to answer several environmental questions, there is also need for calibrated scales of annoyance from odors. In a previous study, the prerequisites for accurate master scaling of odor annoyance were found to be met, and a master function for odor annoyance from pyridine was established (R). The study also showed that reliability of magnitude estimates for odor annoyance is about as high as for odor intensity, and that subjects, in general, generate stable psychophysical power functions for annoyance.* EnP 10

Move 1 with Move 2 Step 1A

Move 1 may be used before M2 Step 1A as a prelude to indicate the lack of knowledge or weaknesses in previous research in a certain area of investigation. It may also be used after Move 2 Step 1A to provide support for and or elaborate on the claim that there is indeed a gap in research in a certain area of investigation as in the example below where the writers state how previous studies have measured characteristics of individuals on a certain variable and the go on to state the weakness in such measures.

> ***Many previous studies measured characteristics of individuals and aggregated these data to obtain a measure which purportedly reflected an area characteristic. For example the deprivation of an***

> ***area has often been measured by using census data, or other routine sources, to calculate measures such as the Townsend score (R) or an Index of Multiple Deprivation*** *(R). Such measures are easy to calculate, but do they really measure the area rather than the people who live in it? There is a widespread belief that such a variable may not be a truly contextual variable which adequately reflects the characteristics of the area. This may account for some of the negative results from studies examining area effects, ….* EnP 27

In this example below the writers justify the lack in prior research by citing the relevant sources to provide the necessary support that there is indeed a gap in research that needs to be addressed.

> *Further clarifications are needed on the relationship and the differences between place identity and place attachment; on the contrary, significant overlapping exists.(R) for instance, suggested that ……(R) viewed attachment as the core component of identity, whereas (R), because of their cognitive perspective, did not recognize a specific role to attachment. Some authors, such as(R), considered attachment as a component of identity, others regarded it as one of its predictors (R). Eventually, attachment and identity were also considered as sub-dimensions of a larger construct, sense of place (R).* EnP 2

Move 1 may also be used before and after the constituent Steps in Move 3.

Move 1 with Move 3 Step 1

M1 may be used before M3 Step 1 to limit the scope of the study or to state the particular focus of the study in relation to previous studies, to show how the study that is being reported is an extension of previous work, to justify the selection of a particular model, theory or hypothesis in the area, to state the limitation of the present study and to justify the purpose of the study that is being reported. For instance in the example below the writers provide an account of a particular navigation system and its functions before stating their general and specific purpose.

To the extent that an RGS systems allows drivers to learn novel routes and areas, the information processing requirements of navigation are reduced, and drivers are able to navigate independent of the system in the shortest amount of time (R). The purpose of the current investigation was to examine the RGS characteristics that facilitate both wayfinding and route memory. Specifically, we wanted to determine if auditorially providing salient spatial cues could facilitate the learning of novel routes without excessively increasing the complexity of the instructional command thereby compromising driving performance during RGS usage. EnP 11

Move 3 Step 1 with Move 1

Move 1 may be used after Move 3 Step 1 to elaborate or explain the theory that is selected for the study that is being reported and to justify the selection of particular variables that are of interest in the study. In the example below the writers state their intent (to examine) and support their intent by providing a citation

This study aims to examine which factors are related to acceptability of energy policies. Stern and colleagues (e.g. Stern, 2000) proposed the value–belief–norm theory (VBN theory) of environmentalism to explain environmental behaviour, among which the acceptability of public policies. EnP 21

Move 1 may also be used with Move 3 Step 2. It is basically used to cite previous results as evidence that form the basis for the formulation of hypotheses or research questions in their study as in the example below where the writers first explain a theory to justify their selection of hypotheses

The affiliation motive can be defined as concern for social acceptance, or a desire to establish and/or maintain interpersonal relations (R). …… We hypothesize that the same association will be found in Pittsburgh students. (EnP 13)

Move1 with Move 3 Step 3

M1 is may be used with Move 3 Step 3 to provide a basis for subscribing to particular definitions or to provide a scope for the definitions employed in the study.

> ***M1*** *In particular, a high degree of residential stability in old age reflects an accumulation of home experience over time. Housing contributes to everyday life at home in terms of ……****M3S3*** *In the rest of this article, we use the term perceived housing to address the totality of subjective phenomena of experiences and symbolic representations related to living at home.* (EnP 1)

Move 1 with Move 3 Step 6

Move 1 may also be used with Move 3 Step 6. It is usually used to justify the urgent need for the present research (given the heterogeneity of these constructs, there is a clear need for an integrative approach).

> *For example, housing satisfaction has predominantly been used in the psychology and sociology of ageing in place (R), while place attachment has been used in the anthropology of ageing (R) and issues of usability in occupational therapy (R). Given the heterogeneity of these constructs,* ***there is a clear need*** *for an integrative approach which identifies the role of such concepts in comprehensively documenting the subjective perception of home in old age.* EnP 24

Move 2 Step 1A and Step 2

Move 2 step 1A is obligatory and by employing this step writers make their research significant by pointing out a gap, limitation, weakness, or what is lacking in previous research. There may be more than one gap statement in an article. In this example below the writers problematise the issue that is being discussed by stating the mulitple factors in specific areas within environmental psychology.

> *One key problem in the literature dealing with housing is that …..*
>
> *Furthermore, perceived housing is linked to the existing sociocultural background ….. However, cultural differences in this regard are often addressed in terms of developmental contexts in*

> *early life or as extremes due to …..Beyond such contrasts, cross-national housing-related research with older adults has remained quite rare.*
>
> *The construct is, however, limited with respect to the understanding of home because it provides only a global and predominantly cognitive evaluation of the relation of the ageing person to her/his home environment (R).* EnP1

Apart from a gap in the research world gap indication in EnP may also relate to a real world problem as in the following two examples (farming practices and sanitation)

> *However, despite the rapid development and improvement of these approaches in the face of economic constraints, changes in farming practices seem difficult to bring about and remain a minority* (R).
>
> *However, despite its many positive aspects, the system also faces a number of challenges. In areas where people have many other pressing needs and the sanitation awareness is low, the adoption of new excreta handling approaches, which may be at odds with the prevailing cultural understanding and practices may not be readily welcomed* (R). (EnP 5)

Writers may also explicitly provide positive reasons (Move 2 Step 2) for conducting the study, or state the value of the research that is being reported, immediately after pointing out a gap, limitation or weakness in previous research. In this example the writers provide justification for the need to address the gap *(*auditory only RGSs*)* in available research.

> *However, RGSs also have the potential to distract drivers by diverting attention away from the primary driving task. Few, if any previous investigations have examined auditory only RGSs. Developing RGSs that facilitate navigation without disrupting driving performance is critical to transportation safety*. EnP 11

Move 3 Step 1

The step - announcing present research descriptively and/or purposively is an obligatory element in EnP Introductions as the writers potray their intention to report on new data related to environmental psychology. This step maybe be used more than once and

appear at different parts of the introduction depending on the purpose(s) of the research that is being reported. This is an example with four purpose statements.

> *The study reported here focused on…..*
> *It aimed to identify ….*
> *This study chose to investigate acceptability perceptions*
> *This study sought to discover and describe….*
>
> EnP 7

Move 3 Step 2- presenting research questions or hypothesis - is an obligatory element, in which writers need to explicitly state the research questions posed or the hypotheses formulated . Writers in EnP either state research questions or hypotheses or may include both these elements as in the following example.

> *Specifically, we wanted to determine if auditorially providing salient spatial cues could facilitate the learning of novel routes without excessively increasing the complexity of the instructional command thereby compromising driving performance during RGS usage.*

> *We predicted that the Supplemental Information (landmark or cardinal heading) would facilitate ....Specifically, we predicted that when provided with auditory RGS directions including either salient landmarks or cardinal heading information, drivers would learn ... In this regard we viewed the standard format as a control condition. It was further reasoned that while landmark information might benefit a majority of drivers, cardinal directions would likely benefit a smaller, though still substantial subset of drivers.* EnP 11

Move 3 Step 3 – definitional clarifications is an optional element. There may be one or more definitional clarifications as in the following introduction.

> *The migrant personality is defined as a willingness or a desire to geographically relocate whenever it appears that opportunities might be better in another region (R).*
>
> *As mentioned earlier, we conceptualize the migrant personality as willingness or a desire to geographically relocate.*
>
> *As mentioned above, we conceptualize the person low in migrant personality as placing a high value on interpersonal relations. In addition to valuing friends, another indicator of this might be wanting to have a large family, or caring more about their families.*

Move 3 Step 4 -summarizing methods - is an obligatory element. In employing this step writers provide a summary of the methods that were employed which may include the subjects, the site of research, time of data collection, instruments, variables and data analysis procedures.

> *In the current investigation we asked **drivers** to learn **novel routes** under **3 RGS conditions:** a route learned with standard RGS (SRGS) instructions, a format that included landmark information with the standard instructions (LRGS), and a format that included cardinal heading (CRGS) in addition to the standard instructions. In each condition, drivers attempted to drive the route from memory after the trial with the RGS. The number of trials required for drivers to complete the route without error as well as the number of navigational errors and subjective ratings of workload **were assessed.*** EnP 11

Move 3 Step 6 – stating the value of the present research- is an optional element in which writers state the significance of their research. This step may occur more than once and be located in various parts within the introductions. Given below is one example.

> *We feel that research that situates the study of QoL and belongingness in the context of housing would be timely …..*
>
> *But in addition, by pitching the study of place belonging to the city, it has political implications that make it particularly relevant to the current situation in Hong Kong*. EnP 29

7.2.10 Writing Methods in environmental psychology

In view of the need for a strong empirical foundation and a compelling analytical justification for claims, the methods sections are written elaborately. Some methods derived from the corpus include: survey administered in individual face-to-face sessions, questionnaires filled in directly in the residents' homes, experiments (set of 50

slides showing progression along a walk through the given type of area) and then administration of questionnaire, in groups of 1–4 persons, 23 participants were brought in Study 1 to Site I, the participant was instructed to take a 1-s sniff and to use a consistent sniffing technique throughout the participation, subjects randomly allocated to experimental and control conditions and interviews)

The majority of writers in EnP insert one Methods section but an RA may contain up to four Methods sections depending on the number of studies that are reported, as there is a propensity for members of this discourse community to report more than one research in an article (e.g. to establish which scale is most suitable among two then use it in a second study; before accepting the hypothesis -confirm and non-confirm results in Study 1 and assumptions tested again in Study 2. In Study 3 test the assumption and Study 4 aim at validating the findings of Study 3; in Experiment 1 verify whether viewing restorative environments could improve performance on an attention task; the same procedure as in Experiment 1 but the difference is in the stimulus materials; Study 1 is an initial exploration and Study 2 examines the particular variable in question in depth). Further, the Methods section may be divided into multiple subsections ranging from 2 to 8 subsections.

This section is mainly concerned with providing a detailed description of the research method(s) utilized in experimental research, co-relational research, and causal-comparative studies and are mostt often given the subheading “Method”, “Methods”, or “Methodology”. Other subheadings used are “Experimental design”, Experimental studies”, “Empirical study", “Design and procedures of the experiment” and “Material and methods”. The 5 moves utilized in realizing this section are : Move 1 - Providing an overview of research method(s), Move 2- Providing details of the sample/population,

Move 3- Delineating tools and data measures, Move 4- Detailing data collection procedures and Move 5- Elucidating data analysis procedure/s. The first is optional and the other four are obligatory. The moves identified in this section do not occur in a strictly linear order. The Methods section usually begins with details regarding sampling procedures in case an overview of the research is not given. Also Move 4 may precede Move 3. In such cases the writers, after detailing the sampling procedures (Move 2), proceed to a description of the procedures used to collect the data (Move 4) and then only go on to describe the tools used and data measures (Move 3).

The table below shows the Moves/Steps for writing the Methods section.

Table 7.7: Proposed model for writing Methods in environmental psychology

Move 1	**Move 1: Overview of research method(s)** **(optional)**
Move 2	**Move 2: Providing details of the sample/population** **(obligatory)** **Step 1: Describing sample/population** which includes statements on: • location of the sample **(obligatory)** • size of the sample/population **(obligatory)** • specific characteristics of the sample (gender,age etc) **(obligatory)** **Step 2: Describing sampling technique or criterion** **(obligatory)** **Step 3: Stating importance/ advantages/relevance /representativity of sample** **(obligatory)** **Step 4: Stating compensation for participants** **(optional)**
Move 3	**Delineating tools and data measures** **(obligatory)** **Step 1**: **Specifying tools used for data collection** which includes statements on: • source(s) of instruments/ materials **(obligatory)** • description of instrument(s)/ materials **(obligatory)** • examples of items in/material /instruments/databases/interviews **(obligatory)** • importance/ validity/ reliability of instrument/ material **(optional)**

	Step 2: Elucidating method/s of measuring variables which includes statements on: • description of methods of measuring variables **(obligatory)** • justification of methods selected/ acceptability of the method/s **(obligatory)**
Move 4	**Detailing data collection procedures** **(obligatory)** **Step 1: Describing data collection procedures** which includes statements on: • time of data collection/administration of instrument **(obligatory)** • administrators of instrument(s) materials/interviews/observations **(optional)** • instructions given or requests made to sample/participants **(optional)** • duration of data collection/experiment **(optional)** • sequence followed in administration of instrument/material /collection of data **(optional)** • specific location of data collection **(optional)** **Step 2: Justifying data collection procedures** **(optional)**
Move 5	***Elucidating data analysis procedure/s*** ***(obligatory)*** • **Step 1: Recounting data analysis procedure/s which includes statements on:** • number of samples instruments/materials/interviews responses collected or analysed ***(optional)*** • procedures followed for data analysis ***(obligatory)*** • analyzer of data ***(optional)*** • **Step 2 Justifying data analysis procedure/s** **(optional)**

7.2.11 Writing Results in environmental psychology

The results section may be written in a maximum of 4044 words in EnP to a minimum of 167 and may contain about 7 subsections with the conventional section heading Results. It may contain the moves and steps as in the following table.

Table 7.8 : Proposed model for writing the Results section in environmental psychology

Move 1	**Preparatory information (obligatory)**
Move 2	**Reporting results (obligatory)**
Move 3	**Commenting on results (optional)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results

Move 1 – Preparatory information (obligatory)

Its function is to: give a preview of the section or sub-sections before the results are reported , show location of results (tables and graphs) , state the procedures that were followed in arriving at the results, to state the purpose or goal of the research, to state hypothesis/research question **,** and to justify data analyses procedures **.** This move, if present, usually occurs at the beginning of the Results section or at the beginning of the following subsections.

Move 2 – Reporting results (obligatory)

It is a direct and brief statement of the results. Its function is to present the results of a study with relevant evidence such as statistics /percentages /frequencies , and observations , objectively

Move 3 – Commenting on results (optional)

Writers in EnP do not exclusively present the results of the study but also subjectively evaluate and comment on them. Therefore, Move 2 – Reporting results is often accompanied with Move 3- Commenting on results. This move functions to extend beyond the objective results presented in the previous move by indicating the meaning

and significance of the results to the relevant field. This involves the interpretation of the results in relation to the purpose of the study, the contribution of the result to the relevant field by comparing the results with that which is already available in related literature, the underlying reasons for the results obtained, and/ or comments about the strengths, limitations and generalizibality of the results. In the corpus, Move 3 typically follows the preceding 'Reporting results' move. Also noted is if a subsection reports more than one result, this move is often interspersed, following the report of each result and this creates a cyclical pattern between these two moves

Move 3 Step 1 - Interpreting results

Move 3 Step 2- Comparing results with literature

Move 3 Step 3- Evaluating results

Move 3 Step 4 - Accounting for results

The Results section in EnP is highly cyclical following the M1-M2 cycle followed by the M1-M2-M3 cycle. If Move 1 is present as a preview to the sections that follow then the following subsection or cycle begins with a Move 1 then goes on to Moves 2 and 3. Where a preview to the Results section is absent the writer begins a subsection with a Move 1, to prepare the reader for the results that is to be announced, and ends the cycle with a Move 3. In cases where Move 1 is absent in a subsection then Move 2 is the initial element followed by a Move 3.

7.2.12 Writing the Discussion section in environmental psychology

The Discussion section may be written in a maximum of 2387 words in EnP to a minimum of 397 words and may contain about 5 subsections with the conventional section heading *Discussion, and General discussion* It may contain the moves and steps as in the following table.

Table 7.9: Proposed model for writing the Discussion section in environmental psychology

Move 1	**Background information (optional)**
Move 2	**Reporting on results (optional)**
Move 3	**Commenting on results (obligatory)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results
Move 4	**Evaluating the study** Step1: limitation of the study **(obligatory)** Step 2: significance or contribution of the study **(obligatory)**
Move 5	**Deductions from the research** Step 1: make suggestions based on their research findings **(optional)** (Step 2) recommend further research **(obligatory)** (Step 3) draw pedagogic implications **(optional)**

Move 1 – Background information (optional)

Its function in EnP includes: situating the research within the wider field; stating the goal/objective/purpose of research, stating research questions/hypothesis, stating major conclusions, stating data collection and data analysis procedures and justifying purpose of a study by indicating a gap that warrants the research.

Move 2 - Reporting on results (optional)

Its purpose is to present the results of a study with relevant evidence such as observations and statistics.

Move 3 - Commenting on results(obligatory)

This move functions to extend beyond the objective results presented in the previous move by indicating the meaning and significance of the results or situate the present research within the relevant field. It is principally a follow up move to the previous "Reporting results' move where the writers highlight their interpretation of the results in relation to the purpose of the study (Move 3 Step 1); the contribution of the result to the relevant field by confirming and / or comparing the results with what is already available in related literature (Move 3 Step 2), the underlying reasons for the results obtained (Move 3 Step 3) and/ or comments about the strengths, limitations and generalizibality of the results(Move 3 Step 4).

Move 4 - Evaluating the study

The writers also evaluate their study (Move 4) by making known their views regarding the weaknesses of the study (Move 4 Step1) which is obligatory and the importance, significance or contribution of the study (Move 4 Step 2) which is alos obligatory.

Move 5 - Deductions from the research

Step 1- make suggestions based on their research findings is an optional element. Step 2- recommend further research is an obligatory element. Move 1, if present, is used to open the discussion. In the absence of Move 1, Move 2 or Move 3 are always present and are most likely to open the section/subsection. The cycle usually involves Moves 2 and 3 where writers first report the results and then comment on them. This cycle is repeated if more than one result is presented and discussed. Each cycle may include only one step of Move 3 or may include more than one step of Move 3. Moves 4 and 5 occur less frequently compared to Moves 2 and 3 and are usually interspersed after a Move 2 or a Move 3 is presented if there is more than one limitation, significance,

suggestion or recommendation for further research in the discussion. Writers in EnP start the discussion section with the main finding.

7.2.13 Writing the Conclusion section in environmental psychology

The conclusion section is optional. Typical headings used are *Conclusions, Conclusion and implications, Summary and implications, Future work and conclusion, Future directions and recommendations, Final comments and conclusions,* and *Concluding Remarks.* It may contain the moves and steps as in the following table.

Table 7.10 Proposed model for writing the Conclusion section in environmental psychology

Move 1	**Background information** **(obligatory)**
Move 2	**Summarizing the study** **(obligatory)** Step 1) 'Restating major findings **(obligatory)** Step 2: Interpreting major findings **(obligatory)** Step 3: Comparing with previous findings **(optional)**
Move 3	**Move 3 - Evaluating the study** (Step 1) 'Indicating significance **(optional)** Step 2 : Indicating limitation **(optional)**
Move 4	**Move 4 – Deductions from research** (Step 1) 'Making suggestions **(optional)** Step 2 'Recommending further research **(obligatory)**

Move 1: Background information is an obligatory element and acts as a reminder where writers restate the importance of the area of investigation, the reason(s) for doing the research, for instance, by restating gaps in previous research and restate the purpose(s) of the study.

Move 2: Summarizing the study is an obligatory element

Step 1- Restating major findings is an obligatory element. Step 2: Interpreting major findings is an obligatory element.

Move 3 - Evaluating the study

Step 1 Indicating significance is an obligatory element and Step 2 : Indicating limitation is optional.

Move 4 – Deductions from research

Step 1 - Making suggestions is an optional element and Step 2 Recommending further research is obligatory. The Conclusion section focuses on summarizing the research by highlighting major findings and interpretations, evaluating the study and pointing out future research directions and suggesting implications for further action by the relevant stake holders.

The results, discussion and conclusion sections may be of interest to: as a starting point for future researches, individuals (e.g. people who pursue needed restoration, how access to natural environments can promote health among people in urbanized societies), policy makers (e.g. public forest management programme) institutional stakeholders such as the European Community, Swedish Environmental Protection Agency and The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning,. general public and NGO's (e.g. matters related to air pollution) , planners and policy-makers in the traffic environment, town planners and environmental managers.

7.2.14 Writing Introductions in economic psychology

Research areas in EcP may include the theory of economic psychology and history, individual decision making, cooperation and competition, socialization and lay theories, money and inflation, financial behaviour, consumer attitudes, behaviour and expectations, firms, marketplace behaviour and marketing, labour markets, taxation, environmental behaviour to government and policy issues. It may prove useful to inform communities of researchers in the fields of economics, social psychology, marketing and consumer behaviour (Kirchler Hölzl**,** 2006).

Although the discipline of economic psychology goes back as far as 1900, it has gained considerable momentum in the last decades. This has resulted in the establishment of the International Association for Research in economic psychology (IAREP), in annual colloquia and workshops as well as in close collaboration with the Society for the Advancement of Behavioral Economics (SABE). A major step towards the institutionalisation and recognition of the discipline in the scientific community has been the introduction of the *Journal of Economic Psychology* (*JoEP*) in 1981. The aim of the Journal is to bridge the gap between economics, business and marketing, and applied psychology and to provide a forum for researchers whose work crosses the borders of these disciplines (Kirchler & Hölzl, 2006). Researchers concern themselves with topics such as: Outcomes versus intentions: On the nature of fair behavior and its development with age; Focal points in coordinated divergence; Life cycle happiness and its sources : Intersections of psychology, economics, and demography; Cognitive and emotional factors affecting currency perception.

The analyses of the introductions in the corpus clearly show that the community of writers in EcP do not employ the M1-M2-M3 move structure in writing the introductions. Since a predominant pattern of move cycles was not observed, it is possible to use much recycling for elaboration and reader comprehension purposes. The number of move cycles may depend on the elaborative purposes of the writer and as the results indicate it can range from a maximum of a maximum of twenty six moves to a minimum of four moves, with introductions containing ten moves falling in the intermediate range. The table below postulates a model for EcP introductions.

Table 7. 11: Proposed model for writing Introductions in economic psychology

Move 1	**Establishing a territory (citations obligatory)** *Topic generalization of increasing specificity* **(obligatory)**
Move 2	**Establishing a niche (citations possible)** *Step 1A: Indicating a gap* **(obligatory)** *Step 2 : Presenting positive justification* **(optional)**
Move 3	**Presenting the present work (citations possible)** *Step 1 Announcing present research descriptively and/or purposively* (**obligatory)** *Step 2: Presenting RQs and hypothesis* **(obligatory)** *Step 3 Definitional clarifications* **(optional)** *Step 4: Summarizing methods* **(optional)** *Step 5: Announcing principal outcomes* (**not probable)** *Step 6 : Stating the value of the present research* (**optional)** *Step 7 : Outlining the structure of the paper* **(optional)**

Move 1- Establishing a territory - Topic generalizations of increasing specificity.

This move is usually used as the opening move and occupies an important position in the introductions. This move may also be used to subordinate and aid in the realization

of constituent steps in Move 2 and Move 3 resulting in the cyclical nature of the introductions.

In employing Move 1 writers in EcP usually establish the territory by asserting the importance of the topic being discussed and/or by highlighting the intensity of research in the area concerned and as such citations are obligatory. The level of specificity increases as the discussion of the particular topic of interest proceeds. The excerpt below illustrates how these writers establish the territory by first stating the importance of the area and then reviewing past research in intentions to show how it has evolved before they highlight the gap that exists in this area of research.

> *Whereas the standard economic approach would judge an action only by its outcome (or utility), recent economic research* ***has stressed the importance*** *of intentions for judging actions. In fact, the perceived intentions of an interaction partner are often considered as equally important as the actual outcome of the partner's action (R). To illustrate the significance of intentions, (R) and (R) have shown that …… (R) and (R) have examined – and confirmed – the importance of intentions in trust games. Rather than manipulating the available alternatives, (R) have manipulated the framing of the trust game by denoting the counterpart either "partner" or "opponent". (R) have manipulated the outside options of the first mover in a trust game, showing that trust and trustworthiness are higher when the first mover has positive opportunity costs of being cooperative than when opportunity costs are zero. Both (R) and (R) have previously studied the …. Younger children make larger offers than older ones in the study of (R), but (R) find the opposite result. With respect to responder behavior, both studies show that younger children accept relatively smaller offers more often.* EcP 1

Move 1 with Move 2 Step 1A

Move 1 may be used before M2 Step 1A as a prelude to indicate the lack of knowledge or weaknesses in previous research in a certain area of investigation. It may also be used after Move 2 Step 1A to provide support for and or elaborate on the claim that there is indeed a gap in research in a certain area of investigation. In the excerpt below the

writers use this move to highlight the need for marketing professionals to focus on more than the core product in their efforts to achieve success in the marketplace by reviewing past research to show what is lacking within this area of research.

> *In several seminal articles (R) and (R) have pointed out the need for marketing professionals to focus on more than the core product in their efforts to achieve success in the marketplace. His works on product differentiation (R) and customer relationships (R) has influenced..... Although (R)points out that..... It has also been hypothesized that non-core aspects are more important than (e.g.,R). (R)and others (e.g.,R) suggest a .....Although (R) propose that .....* ***M2s1*** *This implication has received little attention, with the exception of an experimental study by(R).* EcP 21

The excerpt below shows the writers indicate the gap in the first sentence before showing why it is important to fill the gap in the research by citing the relevant sources to provide the necessary support.

> *By focusing on individual self-expression, the literature has neglected the fact that individuals cannot express meanings that are not socially understood.* ***By focusing on how individuals construct identities, the previous literature has neglected the broader question of how tastes gain meaning in the first place. For example, many researchers have suggested that tastes act as part of the social communication system, communicating aspects of the self to others (R), but researchers have generally not talked about how tastes gain their ability to communicate. If individuals signal identity through tastes, others must be able to understand the meaning of their signals. The notion that cultural tastes can serve as markers to demarcate social groups is familiar to sociologists (R), but they often take these markers as given.*** EcP 4

Move 1 may also be used before and after the constituent Steps in Move 3.

Move 1 with Move 3 Step 1

Move 1 may be used before M3 Step 1 to limit the scope of the study or to state the particular focus of the study in relation to previous studies, to show how the study that is being reported is an extension of previous work, to justify the selection of a particular

model, theory or hypothesis in the area, to state the limitation of the present study and to justify the purpose of the study that is being reported. The excerpt below shows how this moves are used to show an extension of previous work.

> *These symmetrical games have been taken as examples of a broad class of social phenomena. Schelling (1960) himself depicted fashion as this kind of symmetric coordination game, suggesting that "Clothing styles and motorcar fads may reflect a game in which people do not wish to be left out of any majority that forms" (pp. 91–92).* ***We extend Schelling's original insights ……..*** EcP 4

Move 3 Step 1 with Move 1

Move 1 may be used after Move 3 Step 1 to elaborate or explain the theory that is selected for the study that is being reported and to justify the selection of particular variables that are of interest in the study as in the following example where the purpose statement is followed by support for it.

> *Our purpose in this article[1] is to understand ……Numerous past studies have documented related tendencies. We know, for example, that ……(R). We also know that ……...(R), and that they prefer to pay after acquiring a fridge, but before taking a cruise.* EcP6

Move 1 with Move 3 Step2

Move 1 may also be used with Move 3 Step 2. It is basically used to cite previous results as evidence that form the basis for the formulation of hypotheses or research questions in their study.

> *As (R) and (R) have demonstrated, counterfactual thinking is primarily triggered by negative outcomes. Thus, investors will be …… We thus propose that ……* EcP 3

Move 3 Step2 with Move 1

M1 is used after Move 3 Step 2 to provide support for the hypothesis or the research question that is posed in the study as in the following example:

> *It seems plausible to assume that the meaning that people ascribe to money will also have an influence on their willingness to invest in stocks. **M1** Private investors also make stock purchasing decisions with ethical considerations in mind (R).* EcP 24

Move 1 with Move 3 Step 3

M1 is may be used with Move 3 Step 3 to provide a basis for subscribing to particular definitions or to provide a scope for the definitions employed in the study.

> *Surprisingly, there is little agreement on how happiness varies, on average, over the life course …….. Here and subsequently the terms happiness, life satisfaction, and affect balance are used interchangeably; although the concepts are not identical, they are highly positively correlated.* EcP 7

Move 1 with Move 3 Step 6

Move 1 may also be used with Move 3 Step 6. It is usually used to justify the urgent need for the present research.

> *Several countries try to stimulate household savings by ……. **Knowing how** participation in such plans relates to income, wealth and other household characteristics is crucial for understanding the implications for the distribution of savings, wealth, and future income and consumption. Analyzing the reasons for non-take-up is helpful to design the plans in such a way that they will be used by the households they are aimed at.* EcP8

Move 2 Step 1A/B and Step 2

Move 2 Step 1A is obligatory and by employing this step writers make their research significant by pointing out a gap, limitation, weakness, or what is lacking in previous research. There may be more than one gap statement in an article. In this example below the writers problematise the issue that is being discussed by stating the mulitple factors in specific areas within EcP that have lacked research attention.

All of the generalizations just cited are based on research (cf., e.g.,R). Point-of-time studies ***are an uncertain basis*** *for generalizing about life cycle experience, because the young and old in such comparisons are persons from different birth cohorts with different life histories.*

If the life cycle pattern of happiness is to be better established, then what is needed are ….The problem here is that there are very few studies that span many years of the life cycle of a birth cohort.

Thus, even the few fairly lengthy longitudinal studies that have been done do not agree on the pattern of life cycle happiness. EcP 10

Move 2 Step 1B: Adding to what is known maybe an optional element.

……. is to continue this line of research focusing on possible moderating factors, in particular the role of income.

(EcP 20)

Writers may also explicitly provide positive reasons (Move 2 Step 2) for conducting the study, or state the value of the research that is being reported, immediately after pointing out a gap, limitation or weakness in previous research.

In this paper, ***we add*** *to the literature in the following manner. First, we analyze Second, we assess..... Lastly, we present the first analysis..... We consider specifically if acquisition utility (consumer surplus) is subordinate...* EcP 12

Move 3 Step 1

The step - announcing present research descriptively and/or purposively is an obligatory element in EcP Introductions as the writers potray their intention to report on new data related to environmental psychology. This step maybe be used more than once and appear at different parts of the introduction depending on the purpose(s) of the research that is being reported.

In this paper we analyze household data on access to and participation in ESSPs.

We focus on employees with access to ESSPs. We analyze their participation decision and the decision how much to invest

We also analyze how self-reported reasons for non-take-up relate to household characteristics. EcP 8

Move 3 Step 2- presenting research questions or hypothesis - is an obligatory element, in which writers need to explicitly state the research questions posed or the hypotheses formulated .

Similarly, the key research question we raise is, do mixed-motive games require specific mentalising abilities or will some form of rule-following suffice? Does the development of theory-of-mind promote cooperation, generosity, and fairness, or does it foster treachery and selfishness? EcP 29

Move 3 Step 3 – definitional clarifications is an optional element. There may be one or more definitional clarifications as in the following introduction.

Our performance construct of interest is customer satisfaction with the chat session. Online satisfaction, a critical effectiveness parameter in online environments (e.g.,R), has not been linked to efficacy beliefs in this context (R).

Furthermore, in our examination, we are interested in determining the role of the facilitator as a moderator between efficacy beliefs and customer satisfaction.

In this study, we focus on the role of the facilitator by his or her communication style: task-oriented and social-oriented (e.g.,R). A facilitator with a task-oriented communication style is highly goal-oriented and focuses on fulfilling responsibilities and satisfying concerns for a productive outcome. Social communication is more personal and focuses on interpersonal relationships and the process of satisfying group members' emotional needs. EcP 15

Move 3 Step 4 -summarizing methods - is an optional element. In employing this step, writers provide a summary of the methods that were employed which may include the subjects, the site of research, time of data collection, instruments, variables and data analysis procedures.

We have investigated these questions in large survey with over two hundred real investors, reflecting on their personal investment decisions. EcP 3

Move 3 Step 6 – stating the value of the present research - is an optional element in which writers state the significance of their research. This step may occur more than once and be located in various parts within the introductions.

Knowing how participation in such plans relates to income, wealth and other household characteristics is crucial for understanding the implications for the distribution of savings, wealth, and future income and consumption. Analyzing the reasons for non-take-up is helpful to design the plans in such a way that they will be used by the households they are aimed at. EcP 8

Move 3 Step 7 within this move – outlining the structure of the paper is an optional element and may take the following form.

The article proceeds as follows. We open with …..First, we find that…… We then explore a variety of factors…… We discuss the data and their implications, and conclude with some brief remarks. (EcP 6)

7.2.15 Writing Methods economic psychology

In view of the need for a strong empirical foundation and a compelling analytical justification for claims, the methods sections are written elaborately. The majority of writers in EcP insert one Methods section but an RA may contain up to three Methods sections depending on the number of studies that are reported, as there is a propensity for members of this discourse community to report more than one research in an article. Some methods derived from the corpus include: Participants in an experiment playing four different mini-ultimatum games, participants taking part in an experiment either individually or in small groups and a session is completed in about 15 minutes, experiments useing three different capital-market scenarios as environmental states to manipulate correlations among investments, upon entering the lab, subjects are seated

individually in front of a PC to play a particular simulated game, questionnaire survey (mail survey, face to face) and interviews (face to face, telephone).

Further, the Methods section is divided into multiple subsections ranging from 2 to 5 subsections. For instance, researchers initially survey a sample and another a year later test the results with different subjects, employ different variables with the same participants, first experiment then the same experiment is implemented with different subjects, based upon the success of Experiment 1, Experiment 2 seeks to confirm and extend the findings, study two expands the framework established in study one, different participants at different times (age and gender).

This section is mainly concerned with providing a detailed description of the research method(s) utilized in experimental research, co-relational research, and causal-comparative studies and are most often given the subheading “Method”, “Methods”, or “Methodology”. Other subheadings used are “Experimental design”, Experimental studies”, “Empirical study", “Design and procedures of the experiment” and “Material and methods”.

The 5 moves utilized in realizing this section are: Move 1 - Providing an overview of research method(s), Move 2- Providing details of the sample/population, Move 3- Delineating tools and data measures, Move 4- Detailing data collection procedures and Move 5- Elucidating data analysis procedure/s. The first is optional and the other four are obligatory. The moves identified in this section do not occur in a strictly linear order. The Methods section usually begins with details regarding sampling procedures in case an overview of the research is not given. Also Move 4 may precede Move 3. In such cases the writers, after detailing the sampling procedures (Move 2), proceed to a

description of the procedures used to collect the data (Move 4) and then only go on to describe the tools used and data measures (Move 3). The table below shows the Moves/Steps for writing the Methods section.

Table 7.12: Proposed model for writing Methods in economic psychology

Move 1	**Move 1: Overview of research method(s)** **(optional)**
Move 2	**Move 2: Providing details of the sample/population** **(obligatory)** **Step 1: Describing sample/population** which includes statements on: • location of the sample **(obligatory)** • size of the sample/population **(obligatory)** • specific characteristics of the sample (gender,age etc) **(obligatory)** **Step 2: Describing sampling technique or criterion** **(optional)** **Step 3: Stating importance/ advantages/relevance /representativity of sample** **(optional)** **Step 4: Stating compensation for participants** **(optional)**
Move 3	**Delineating tools and data measures** **(obligatory)** **Step 1**: **Specifying tools used for data collection** which includes statements on: • source(s) of instruments/ materials **(optional)** • description of instrument(s)/ materials **(obligatory)** • examples of items in/material /instruments/databases/interviews **(obligatory)** • importance/ validity/ reliability of instrument/ material **(optional)** **Step 2: Elucidating method/s of measuring variables which includes statements on:** • description of methods of measuring variables **(obligatory)** • justification of methods selected/ acceptability of the method/s **(optional)**
Move 4	**Detailing data collection procedures** **(obligatory)** **Step 1: Describing data collection procedures** which includes statements on: • time of data collection/administration of instrument **(optional)**

	• administrators of instrument(s) materials/interviews/observations **(optional)** • instructions given or requests made to sample/participants **(optional)** • duration of data collection/experiment **(optional)** • sequence followed in administration of instrument/material /collection of data **(optional)** • specific location of data collection **(optional)** **Step 2: Justifying data collection procedures (optional)**
Move 5	***Elucidating data analysis procedure/s*** **(obligatory)** • **Step 1: Recounting data analysis procedure/s which includes statements on:** • number of samples instruments/materials/interviews responses collected or analysed **(optional)** • procedures followed for data analysis **(optional)** • analyzer of data **(optional)** • **Step 2 Justifying data analysis procedure/s (optional)**

7.2.16 Writing Results in economic psychology

The results section may be written in a maximum of 2887 words in EcP to a minimum of 492 and may contain about 6 subsections with the conventional section heading Results. It may contain the moves and steps as in the following table.

Table 7.13: Proposed model for writing the Results section in economic psychology

Move 1	**Preparatory information (obligatory)**
Move 2	**Reporting results (obligatory)**
Move 3	**Commenting on results (optional)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results

Move 1 – Preparatory information (obligatory)

Its function is to: give a preview of the section or sub-sections before the results are reported , show location of results (tables and graphs) , state the procedures that were followed in arriving at the results , to state the purpose or goal of the research, to state hypothesis/research question **,** and to justify data analyses procedures **.** This move, if present, usually occurs at the beginning of the Results section or at the beginning of the following subsections.

Move 2 – Reporting results (obligatory)

It is a direct and brief statement of the results and its function is to present the results of a study with relevant evidence such as statistics /percentages /frequencies , and observations objectively

Move 3 – Commenting on results

Writers in EcP do not exclusively present the results of the study but also subjectively evaluate and comment on them. Therefore, Move 2 – Reporting results is often accompanied with Move 3- Commenting on results. This move functions to extend beyond the objective results presented in the previous move by indicating the meaning and significance of the results to the relevant field. This involves the interpretation of the results in relation to the purpose of the study, the contribution of the result to the relevant field by comparing the results with that which is already available in related literature, the underlying reasons for the results obtained, and/ or comments about the strengths, limitations and generalizibality of the results. In the corpus, Move 3 typically follows the preceding 'Reporting results' move. Also noted is if a subsection reports more than one result, this move is often interspersed, following the report of each result and this creates a cyclical pattern between these two moves.

Move 3 Step 1 - Interpreting results

Move 3 Step 2- Comparing results with literature

Move 3 Step 3- Evaluating results

Move 3 Step 4 - Accounting for results

The Results section in EcP is highly cyclical following the M1-M2 followed by the M1-M2-M3 cycle. If Move 1 is present as a preview to the sections that follow then the following subsection or cycle begins with a Move 1 then goes on to Moves 2 and 3. Where a preview to the Results section is absent the writer begins a subsection with a Move 1, to prepare the reader for the results that is to be announced, and ends the cycle with a Move 3. In cases where Move 1 is absent in a subsection then Move 2 is the initial element followed by a Move 3.

7.2.17 Writing the Discussion section in economic psychology

The Discussion section may be written in a maximum of 1546 words in EcP to a minimum of 320 words and may contain about 5 subsections with the conventional section heading *General discussion*, *Discussion and implications*, *General discussion and conclusion,* and *Discussion and conclusion.* It may contain the moves and steps as in the following table.

Table 7.14: Proposed model for writing the Discussion section in economic psychology

Move 1	**Background information (optional)**
Move 2	**Reporting on results (optional)**
Move 3	**Commenting on results (obligatory)** Step 1 - Interpreting results Step 2- Comparing results with literature Step 3- Evaluating results Step 4 - Accounting for results

Move 4	**Evaluating the study** Step1: limitation of the study **(optional)** Step 2:.significance or contribution of the study **(obligatory)**
Move 5	**Deductions from the research** Step 1- make suggestions based on their research findings **(optional)** Step 2- recommend further research **(obligatory)** Step 3- draw pedagogic implications **(optional)**

Move 1 – Background information (optional)

Its function in EcP includes: situating the research within the wider field; stating the goal/objective/purpose of research, stating research questions/hypothesis, stating major conclusions, stating data collection and data analysis procedures and justifying purpose of a study by indicating a gap that warrants the research.

Move 2 - Reporting on results (optional)

Its purpose is to present the results of a study with relevant evidence such as observations and statistics.

Move 3 - Commenting on results (obligatory)

This move functions to extend beyond the objective results presented in the previous move by indicating the meaning and significance of the results or situate the present research within the relevant field. It is principally a follow up move to the previous "Reporting results' move where the writers highlight their interpretation of the results in relation to the purpose of the study (Move 3 Step 1); the contribution of the result to the relevant field by confirming and / or comparing the results with what is already

available in related literature (Move 3 Step 2), the underlying reasons for the results obtained (Move 3 Step 3) and/ or comments about the strengths, limitations and generalizibality of the results(Move 3 Step 4).

The writers also evaluate their study (Move 4) by making known their views regarding the weaknesses of the study (Move 4 Step1) and the importance, significance or contribution of the study (Move 4 Step 2). (Move 4 Step1) is optional and (Move 4 Step 2) obligatory.

Move 5 - Deductions from the research

Step 1- make suggestions based on their research findings is an optional element. Step 2- recommend further research is also an optional element. Move 1, if present, is used to open the discussion. In the absence of Move 1, Move 2 or Move 3 are always present and are most likely to open the section/subsection. The cycle usually involves Moves 2 and 3 where writers first report the results and then comment on them. This cycle is repeated if more than one result is presented and discussed. Each cycle may include only one step of Move 3 or may include more than one step of Move 3. Moves 4 and 5 occur less frequently compared to Moves 2 and 3 and are usually interspersed after a Move 2 or a Move 3 is presented if there is more than one limitation, significance, suggestion or recommendation for further research in the discussion. Writers in EcP start the discussion section with the main finding.

7.2.18 Writing the Conclusion section in economic psychology

The conclusion section is optional. Typical headings used are *Conclusions*, *Conclusion and implications*, *Summary and implications*, *Future work and conclusion*, *Future directions and recommendations*, *Final comments and conclusions*, and *Concluding Remarks.* It may contain the moves and steps as in the following table.

Table 7.15 : Proposed model for writing the Conclusion section in EcP

Move 1	**Background information (obligatory)**
Move 2	**Summarizing the study (obligatory)** **Step 1) 'Restating major findings (obligatory)** **Step 2: Interpreting major findings (obligatory)** **Step 3: Comparing with previous findings (optional)**
Move 3	**Move 3 - Evaluating the study** **(Step 1) 'Indicating significance (optional)** **Step 2 : Indicating limitation (optional)**
Move 4	**Move 4 – Deductions from research** (Step 1) 'Making suggestions **(optional)** Step 2 'Recommending further research **(obligatory)**

Move 1: Background information

This is an obligatory element and it acts as a reminder where writers restate the importance of the area of investigation, the reason(s) for doing the research, for instance, by restating gaps in previous research and restate the purpose(s) of the study.

Move 2: Summarizing the study (obligatory)

(Step 1) 'Restating major findings (obligatory)

Step 2: Interpreting major findings (obligatory)

Step 3: Comparing with previous findings(optional)

Move 3 - Evaluating the study

Step 1-Indicating significance is an optional element. Step 2 - Indicating limitation is also an optional element.

Move 4 – Deductions from research

(Step 1) Making suggestions is an optional element and Step 2 - Recommending further research- is an obligatory element. The Conclusion section focuses on summarizing the research by highlighting major findings and interpretations, evaluating the study and pointing out future research directions and suggesting implications for further action by the relevant stake holders.

The results, discussion and conclusion sections may be of interest to among others: as a starting point to confirm earlier results, for policy makers (Securities Regulatory Commission), ongoing research(previous work not addressed), institutional stakeholders (University of Southern California Greek State Scholarship Foundation) and tax officials and taxpayers.

7.3 Linguistic analysis of titles and new knowledge claims across the three disciplines

The titles may be grouped as in full sentence form, as compound titles and as remaining structures, which refers to titles cast other than in full sentence and compound forms. The tendency to use full sentence titles among writers across these disciplines was rare. Compound titles and other remaining structures are used almost equally across the three disciplines. Also observed is that the first noun phrase, in compound titles exhibit a 'sharpening of focus' where writers pack it with either one or more prepositional phrases. In the remaining structure type a noun phrase is usually followed by one or more prepositional phrases. The prepositions *of* and *in* were the most used.

In terms of the structure of new knowledge claims it was observed that writers across these disciplines state the value of their research towards the end of their introductions. They seem to provide elaborate accounts of their contribution to the creation of new

knowledge at the beginning of the article. It was also observed that a standard or unified way of making new knowledge claims was not observed across the three disciplines. metadiscursive elements were also manifested within these claim sequences. Apart from that hedged and unhedged statements of new knowledge claims were also observed with unhedged statements outnumbering hedged claims.

7.3 Theoretical implications

This study has shown that a coding scheme derived from a thorough review of relevant literature enables a more reliable identification of moves and steps within a corpus. In this instance, Swale's (2004) observations regarding the nature of a 'Move' and his concerns and insights (which were highlighted in the review of relevant literature) based on a thorough review of recent research on the various sections of the RA, made the analysis more manageable and meaningful in the sense that I (and the co-rater) were able to quite easily decipher how the writers in these disciplines maneuvered the various rhetorical moves and steps to realize their communicative purpose.

7.5 Limitations of the study

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 on the part of the researcher (Hyland, 2000). However, "within its own limits, text analysis still offers a systematically informed, useful and practical approach to the investigation and understanding of genre" (Ruiying & Allison, 2004:267). This study, however, does not intend to offer a watertight formula for writing the various sections of RAs in the three disciplines but forwards the idea that an awareness of the conventions of this genre in the particular disciplines will empower writers in this area to write better RAs.

A further limitation is the size of the corpus for each of the disciplines. To propose a definitive move/step structure for the particular disciplines based on an analysis of 30 RAs each may be too naïve an ambition. Nevertheless, my purpose was first to understand how to move analyse RAs and then to describe the structure of abstracts and the various sections of the RAs. This endeavour equipped me with the necessary skills and I believe, through this research, based on 90 RAs, I am able to provide at least a baseline description of the abstracts and the various sections of the RAs that were selected that may be useful for further research purposes.

7.6 Directions for further research

This study may be considered a small contribution towards the understanding of genre of the RA in interdisciplinary areas. Many questions may remain unanswered due to the limited scope of the study which is confined to a textual or thin analysis. It is therefore suggested that:

- Further research is conducted with a larger sample size from these disciplines incorporating multiple coders and informant data to make the analysis multidimensional
- Further research is conducted with other interdisciplinary subjects which incorporate Psychology and broader interdisciplinary areas in the soft and hard sciences to see if there are similarities and differences in the rhetorical structure of the RAs in such disciplines.
- More indepth analysis of other linguistic features is conducted to better understand not only how the moves and steps are realized but also how the writers utilise particular linguistic features to achieve their communicative purpose(s).

7.7 Conclusion

I set out with three objectives. I wanted to identify the rhetorical structure of abstracts and the various sections constituting the RAs in EdP, EnP,and EcP and also to determine how titles and new knowledge claims are written within these RAs. A review of the relevant literature in the last four years or so and the assistance of a colleague as co-rater made the analysis of the material simpler. I was able to identify the moves / steps and linguistic structures and presented it to the best of my present knowledge. My hope is that this analysis contributes to a better understanding of the rhetorical structure of RAs within these inter disiciplinary subjects which after all do not appear to be dissimilar to RAs in single disciplines in the soft sciences.