



Commenting on Findings in Qualitative and Quantitative Research Articles' Discussion Sections in Applied Linguistics

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Abstract

Research articles have received a wide interest in discourse studies particularly in genre analysis over the last few decades. A vast number of studies have focused on identifying the organizational patterns of research articles in various fields. However, to date, no study has been conducted on generic structure of qualitative and quantitative research articles. This study investigates the importance of commenting on findings in Discussion section of qualitative and quantitative research articles and the strategies that these two types of articles employ in making comments. The analysis shows that while commenting on findings is an important feature in both sets of articles, different strategies of commenting are favored in each type of articles. The differences can be attributed to the different epistemology of qualitative and quantitative research.

Keywords: genre analysis, qualitative research, quantitative research, commenting on findings

1. Introduction

Research articles (henceforth RAs) have received a wide interest in discourse studies over the last few decades. Meanwhile, writing a research report is a challenging task for writers as they need to be familiar with the norms of their discourse community to establish the importance of their research and to show that their study is worthy of attention. In other words, to be able to negotiate with their discourse community and persuade them to accept their knowledge claims, writers are required to present their research in a way that to be in line with their audience's expectations (Hyland, 2005a; Koutsantoni, 2006). One attempt to identify the discourse community norms has been made by genre analysts. ESP approach to genre studies analyzes and identifies the conventions of genres in terms of organizational patterns (move structure). Based on the seminal work of Swales (1990), genres are defined as communicative events which are recognized based on their communicative purpose. The function of genre is "to mediate between social situations and the texts that respond strategically to the exigencies of those situations" (Swales, 2009, p. 14).

There is a vast amount of literature on the generic features of RAs in various disciplines. These studies have investigated either the whole article or one section of RAs within the IMRD (Introduction, Method, Results, and Discussion) framework including: RAs in Applied Linguistics (Yang, 2001), RAs in Biochemistry (Kanoksilapatham, 2005), RAs in Computer Science (Posteguillo, 1999), RAs in Medicine (Nwogu, 1997), Abstracts in Linguistics (Lorés, 2004), Abstracts and Introductions in Conservation Biology and Wildlife Behavior (Samraj, 2005), Introductions in Applied Linguistics (Ozturk, 2007), Results section in Management (Lim, 2006), Results section in Medicine (Williams, 1999), Results section in Sociology (Brett, 1994), Discussion section in History, Sociology, and Political Science (Holmes, 1997), Discussion section in Agricultural Economics (Holmes, 2000), and Discussion section in seven disciplines of Physics, Language and Linguistics, Environmental Science, Biology, Business, Law, and Public and Social Administration (Peacock, 2002).

These studies have been concerned either with experimental or with empirical (qualitative and quantitative) RAs. While in some disciplines research might be equal to experimental research, in Applied Linguistics, research can be defined as "a systematic process of inquiry" which has three main components of "a question, problem, or hypothesis", "data", and "analysis and interpretation of these elements" (Nunan, 1999, p. 3). Furthermore, empirical research can be defined as "the construction of knowledge by means of systematic observation, analysis, and representation of behavior and/or its artifact" (Silva, 2005, p. 10). Based on this definition, qualitative, quantitative, and mixed method designs fall into empirical research. In a field such as Applied Linguistics that all these three types of research are conducted, investigating the empirical research articles includes analyzing qualitative, quantitative, and mixed method studies all together. However, as we know, the qualitative and quantitative designs are different in some fundamental aspects such as the knowledge claim that they make, the main purpose that they follow, the research questions that they impose, the data that they collect, and the methods that they use to analyze data (Creswell, 2003; McKay, 2006). Given these differences, it is not unreasonable to expect that writers employ different rhetorical strategies in writing them. However, to our knowledge, no published research has been reported on investigating generic structure of the qualitative and quantitative RAs.

Given such a gap in previous research, we investigated the generic structure of the qualitative and quantitative English

RAs' Discussion sections in Applied Linguistics. The focus is on the Discussion section of RAs as it is an important section in establishing the importance of research works. The Discussion section enjoys a crucial role in any academic writing as the writers present and argue their own points of view about their findings. They need to present their findings and interpretations in ways that readers find persuasive (Hyland, 2005b). Besides, it is the section that students find the most problematic to write and understand (Bitchener & Basturkmen, 2006; Dudley-Evans, 1994). In this paper we report our findings of examining how writers of qualitative and quantitative RAs comment on their findings. Our aim is to identify whether making comments on findings and strategies that writers use to comment are dependent on the research methods (qualitative and quantitative) used.

2. Method

2.1 Corpus

The corpus of the study consists of 15 qualitative and 15 quantitative RAs' Discussion sections selected from five high impact journals in the field of Applied Linguistics based on the Journal Citation Reports (Social Sciences Edition) 2008. The list included the journals in Linguistics which covered both pure Linguistics and Applied Linguistics journals. For the purpose of the study we excluded the journals devoted to pure Linguistics from the list. After examining the remaining journals, the five selected journals were: Applied Linguistics, English for Specific Purposes, Journal of Pragmatics, Language Teaching Research, and TESOL Quarterly.

The articles were selected from the issues published from 2002-2009. The first criterion considered in selecting the articles was having a separate Discussion section. Therefore, the articles that had combined the Discussion section with Findings, Analysis, Conclusion, Implication, or Limitations were excluded. The remaining articles were categorized as qualitative and quantitative and mixed method articles were excluded. In classifying the articles as qualitative or quantitative, we gave the priority to the article writers' own explicit statement about the design they had used. If they had not mentioned the method explicitly, which mostly had not, the method sections were examined in detail. According to Perry (2005, p. 75) the characteristic of quantitative research is "the use of numbers to represent its data", and the characteristic of qualitative research is "verbal descriptions as its data". Those articles that were experimental or completely dealt with statistics were categorized as quantitative and the articles that used qualitative methods and relied mainly on verbal description were classified as qualitative. Problematic cases were discussed and decisions were made by consensus. In a few cases that an agreement was not achieved a more cautious approach was adopted and those cases were excluded. It should be noted that categorization of the articles as qualitative or quantitative was based on their methods of data collection and data analysis rather than attempting to identify their underlying philosophy and purpose. Benson, Chik, Gao, Huang, and Wang (2009) differentiate between the studies that *use a specific type of design* (qualitative and quantitative) and those that *represent a specific type of design* (qualitative and quantitative). Our focus in this study was to identify and investigate the articles that *used* qualitative or quantitative research methods.

After categorizing the articles in two groups of qualitative and quantitative, they were double checked to ensure that each article was set in the right category. Then, we selected 15 qualitative and 15 quantitative RAs based on stratified random sampling. That is, three qualitative and three quantitative RAs were selected randomly from each journal. Each RA in this corpus is referred to by an abbreviation of Quali. (for qualitative RAs), Quanti. (for quantitative RAs), and the abbreviation of the journals as APP (Applied Linguistics), ESP (English for Specific Purposes), PRAG (Journal of Pragmatics), LTR (Language Teaching Research), and TESOL (TESOL Quarterly). So, for example, the third RA in the qualitative ESP sub-corpus is referred to by the abbreviation Quali-ESP3. See Appendices A and B for the list of the articles.

2.2 Data Analysis

In this study we used Swales' (1990, 2004) move-step analysis which stresses that a genre is organized based on a set of communicative purposes which are realized by communicative units. These communicative units are called Move. In other words, Move is a communicative unit which carries the specific communicative purpose of a particular part of a text. Thus, classification of a piece of a text as a Move depends on whether or not the segment has a particular and identifiable communicative purpose. Each Move might be realized by one or more subsequent elements called Step. While Move includes the general communicative purpose of a segment, Step shows in detail the "rhetorical means of realizing the function of Move" (Yang & Allison, 2003, p. 370).

The two sub-corpora (qualitative and quantitative) were analyzed separately. Before analyzing each article's Discussion section, the whole article was read to obtain a general idea about it. In most cases, particularly qualitative RAs, perusing the whole article for several times in detail was necessary for understanding the discussion section. As Dudley-Evans (1994, pp. 226-227) states, identification of Moves can be made based on "linguistic evidence" and "comprehension of the text". Nwogu (1997) makes the same suggestion and states that the identification of communicative units can be made on the basis of inference from context as well as the linguistic clues. In this study, both of these techniques (linguistic evidence and understanding the content of the text) were used in identifying the Moves and Steps. The priority was given to explicit linguistic clues. The linguistic clues included a single word, a phrase, a clause, or even sometimes a whole sentence. For instance, expressions such as 'x can be explained by...', 'x is due to...', 'x can be attributed to y...', and 'one possible explanation is that...' were an explicit indicator of Explaining Findings. In several cases, particularly the qualitative sub-corpus, the linguistic clues were less obvious and the identification of communicative units was made based on understanding the meaning of the segment.

On the whole, the identification of Moves and Steps in the corpus required re-reading and re-analyzing. In other words,

re-readings of the whole parts of the RAs and re-analysis of the Discussion sections were carried out until it was made sure that the identification of the Moves and Steps were done precisely and satisfactorily. To ensure the reliability of the analysis, two months after the initial analysis was completed, the data were analyzed once more and no notable difference was observed. After the findings were finalized, 20 percent of each sub-corpus (three qualitative and three quantitative RAs) were analyzed by a Professor who is a specialist in genre analysis. The Cohen kappa inter-rater agreement showed a kappa value of 0.81 and 0.84 for qualitative and quantitative sub-corpora respectively. Upon identifying the moves and steps, the findings from each sub-corpus were summarized in a separate table and frequency of the moves and type and frequency of steps as well as sub-steps were compared to come up with an understanding of their similarities and differences.

The steps that were categorized under the move of Commenting on Findings in this study are different from the previous studies which have analyzed RAs or thesis in Language Teaching, Applied Linguistics, or Education. For instance, Basturkmen (2009) and Lim (2010), following Yang and Allison (2003), include Comparing Findings with Literature as a step under the move of Commenting on Findings. However, Commenting on Findings and Comparing Findings with Literature seem to be two different moves as they carry two different communicative purposes. While in Commenting on Findings authors present their own subjective comments and understanding of findings and try to make new knowledge claims, in Comparing Findings with Literature they compare and/or contrast findings with those in literature to connect their own study to current research in the field and contextualize their study. Therefore, in this study Comparing Findings with Literature is not considered as a step of Commenting on Findings as it carries a separate communicative purpose by itself.

3. Results and Discussion

3.1. Frequency of the Move in the Corpus

The analysis of the corpus showed that Commenting on Findings was present in all the 15 quantitative and 12 qualitative RAs. The finding indicates the importance of the move in both types of articles. This paper is part of a large-scale study that analyzed the generic structure of Discussion section of qualitative and quantitative RAs in detail. The findings showed that in terms of overall frequency, the move of Commenting on Findings was the second most occurred move (with 34 occurrences, 18.4% of all the moves identified in the sub-corpus) in the qualitative sub-corpus and the first most occurred move (56 occurrences, 26% of all the moves identified in the sub-corpus) in the quantitative sub-corpus. To be specific, Commenting on Findings comprised around one fifth of the whole moves in the qualitative and a quarter of the whole moves in the quantitative sub-corpora.

While, this study identified Commenting on Findings as an important move in both sub-corpora, Swales (1990) did not include this move in his model. A partial equivalent move to this move is Explaining which Swales states is optional and can be used to explain *unexpected* outcomes. Similarly, Dudley-Evans (1994) used Explanation in his model which deals with unexpected results and Holmes (1997) identified Explanation of Unsatisfactory Result. Meanwhile, Nwogu (1997), analyzing medical RAs, identified Explaining Specific Research Outcome. However, the move is not an equivalent to the move of Commenting on Findings identified in this study; as Nwogu proposes completely different steps (such as, Indicating Significance of the Outcome, Contrasting Present and Previous Outcomes, Indicating Limitations of Outcomes) for the move. Posteguillo (1999), using Swales' (1990) model, did not find Explaining as a common move in computer science RAs. Also, Holmes (2000) studying Agricultural Economics RAs and Peacock (2002) analyzing 252 articles from seven different disciplines, both using Dudley-Evans' (1994) model, did not find Explanation of Unsatisfactory Result as a prevalent move in their corpus. In the most relevant research to the present study, Yang (2001) identified Commenting on Findings as an obligatory move in the Discussion sections of RAs in Applied Linguistics.

The findings of this study show that Commenting on Findings is an essential move in Discussion section of both qualitative and quantitative RAs in Applied Linguistics. As Yang suggests, the communicative focus of the Discussion section of RAs in this field, reasonably, seems to be Commenting on Findings. It appears that only presenting the findings and leaving the readers to find explanations for them or interpret them is inadequate in this field. Furthermore, as more than one explanation, interpretation, and evaluation can be made out of a finding, it seems necessary for writers to make clear their personal points of view and comments on the findings. Thus, in this section writers go beyond their findings and present their own understanding of them. A key point that a good Discussion section needs to address, according to Paltridge and Starfield (2007, p. 154), is not only to say "what the study has done", but also to state "what does it mean". As Swales and Feak (1994, p. 195) state, effective Discussion sections, unlike results, are based on "points" which are interpretive rather than "facts" which are descriptive. Besides, as Basturkmen (2009) remarks, Commenting on Findings is important as by doing so writers make new knowledge claims and try to persuade their audience to accept them.

Meanwhile, examining the three qualitative RAs which lacked this move indicated that the aim of the study (e.g. describing, interpreting, explaining) and the type of research questions (e.g. what, why, how) can affect the presence or absence of the move in the section. The three qualitative articles which lacked Commenting on Findings were Quali-APP3, Quali-ESP3, and Quali-TESOL3. Quali-APP3, according to its authors, is a qualitative, *descriptive* case-study which has used interviews and classroom observation in order to "investigate the relation between the three teachers' beliefs about the use of Singlish in their classrooms and their actual classroom feedback practices" (Farrell & Kun, 2007, p. 358). According to Punch (2005, p. 15), describing is drawing "a picture of what happened, or how things are proceeding, or of what situation or a person or an event is like". The purpose of a descriptive study, thus, is initially to

provide an accurate and detailed description of a particular context, phenomenon, individual, or a group. In this sense, the writers of Quali-APP3 were not concerned with commenting on their findings but rather providing an accurate account of the teachers' beliefs and actions in their classrooms about the use of "standard" English.

The second RA without Commenting on Findings was Quali-ESP3. This research according to its authors is an "exploratory and preliminary" study which tries to explore "the level of consistency between the linear, deductive discourse pattern recommended for school writing and the actual structure of reading materials" (Shi & Kubota, 2007, p. 180) in school textbooks. As Punch (2005, p. 15) states, the focus of exploratory studies is normally on "systematic description". This might explain why the focus of the Quali-ESP3 writers have not been on explaining or interpreting the findings but rather on describing the phenomena and using the findings to make suggestions for teaching writing at schools.

The third RA without Commenting on Findings was Quali-TESOL3. The aim of the study was "to investigate what differentiated higher quality from lower quality negotiation-of-meaning interactions as well as the consequences of these interactions in a storytelling task" (Ko, Schallert, & Walters, 2003, p. 303). To achieve this aim, the writers posed three "what" questions. As we know, the focus of these types of questions is mainly on "description". Based on the stated aim and research questions, it can be concluded that the purpose of Quali-TESOL3 writers was more description rather than interpretation or explanation of the phenomena.

3.2 Type of Steps Used to Realize the Move

The analysis of the data showed that the writers used three strategies of Explaining, Interpreting, and Evaluating to realize the move of Commenting on Findings (see Table 1). While in some cases the writers used one of these steps to comment on a specific finding, in other cases they used two or three of these strategies to state their comments.

Table 1. The presence and overall frequency of steps in the corpus

Move	Steps	Presence in RAs		Overall Frequency in the Corpus	
		Quali.	Quanti.	Quali.	Quanti.
Commenting on Findings	1) Explaining	6	14	8 (24.24%)	29 (51.8%)
	2) Interpreting	12	9	21 (63.64%)	20 (35.70%)
	3) Evaluating	3	5	4 (12.12%)	7 (12.50%)

3.2.1 Explaining

By employing Explaining, the writers tried to provide reason(s) for why the findings were obtained the way they did. In the qualitative RAs two sub-steps and in the quantitative RAs three sub-steps were identified for this step (see Table 2). In both sets of articles the writers offered one and/or several reasons for the findings. One reason that the writers provided more than one explanation might be the fact that no particular and exact explanation can be identified for a finding. Also, it is possible that the writers tried to prevent counterclaims by showing that they were aware of and had fully considered all the possibilities and perspectives in their discussion. In the quantitative sub-corpus, the writers also referred to literature to explain their findings. However, this sub-step was underused in the sub-corpus (as shown in Table 2).

Table 2. The presence and overall frequency of sub-steps of Explaining in the corpus

Step	Sub-steps	Presence in RAs		Overall Frequency in the Corpus	
		Quali.	Quanti.	Quali.	Quanti.
1) Explaining	A) Providing an Explanation	4	11	4 (50%)	16 (5.17%)
	B) Providing Alternative Explanations	3	6	4 (50%)	9 (31.04%)
	C) Providing an Explanation by Referring to Literature	**	2	**	4 (13.79%)

Note: ** indicates that the sub-step was not identified in the sub-corpus

In the qualitative sub-corpus, both steps were present with the same overall frequency. However, in the quantitative RAs, the first step was more commonly used than the other two steps. This is in contrast to Basturkmen's (2009) finding which showed Providing Alternative Explanations as a common sub-step in Language Teaching RAs. The following excerpts show how the writers used these sub-steps to explain their Findings:

- (1) **This result may be explained** by the differences between Japanese speakers and English speakers as to strategies to express sympathy. (Quali-PRAG2)

- (2) Overall, we believe that our participants interpreted simple deceptions as mistakes and performed better in recognizing complex deceptions for **the following reasons**: ... **Another possible explanation**, which is not necessarily incompatible with the one described above, could be that the complexity of the situation led the children to question the sincerity of the speaker's intentions... (Quanti-PRAG3)
- (3) **This result can be explained by Schmidt's account** of the role of awareness in L2 acquisition. Schmidt (1995, 2001) distinguished awareness at the level of noticing and the level of understanding, which is a higher level of awareness... (Quanti-TESOL1)

Although Explaining was used by both types of articles, the step was more prevalent in the quantitative sub-corpus (see Table 1). While in the quantitative RAs 14 out of 15 RAs employed this step, it was used only in six qualitative RAs. Also, in terms of overall frequency, while more than 50% of the whole Commenting on Findings move in the quantitative sub-corpus was realized through Explaining, only in 24% of the cases the qualitative article writers used this step to comment on their findings. These differences can be attributed to the differences of qualitative and quantitative research and the type of understanding they try to generate.

Quantitative research is based on the assumption that world is governed by a set of fixed rules of cause and effect, and the role of researcher is to test these rules in order to confirm or reject them. Therefore, the researcher is required to break down the "preexisting reality" into small variables and to test and identify relationships between or among these variables. In other words, the focus of quantitative research is "to describe variables, examine relationships among variables, and determine causality among variable" (Burns & Grove, 2005, p. 24). The ultimate aim, thus, is to identify general patterns among selected variables in order to make predictions and generalize to other contexts and situations. Therefore, the main emphasis of quantitative research is to determine whether there is a relationship between or among variables and identify evidence to show a "law-like" cause and effect (causality) relationship. In this sense, it is not surprising that the quantitative RA writers focus on explaining how and why the findings are obtained and as a result employ different strategies in their writings to achieve that.

The analysis of the data showed that in some cases the qualitative RA writers also used Explaining to comment on their findings. The idea that explanations can be provided in qualitative research has been controversial in the literature. Some researchers (e.g. Denzin & Lincoln, 2000) argue that qualitative research is concerned with meanings, thus, law-like and predictable causal relationships cannot be attributed to social world. On the other hand, another group of researchers (Maxwell, 2005; Maxwell & Loomis, 2003; Miles & Huberman, 1994; Spencer, Ritchie, & O'Connor, 2003) argue in favor of explanations in qualitative research. These researchers suggest that explanations can be used in both qualitative and quantitative research but the kind of explanations they provide are different. While in quantitative research explanations are at the level of cause, in qualitative research explanations are more concerned with showing how "different meanings and understandings within a situation come together to influence the outcome" (Spencer et al., 2003, p. 215).

These discussions can be applied to the explanations that we are trying to provide for the findings in this study. The purpose of these explanations is not, for instance, to provide *deterministic* reasons for why a particular step is preferred by qualitative or quantitative RA writers, rather, by providing explanations we try to better understand the process of writing in these two types of RAs. It should be noted that no attempt was made to study the types of explanations that were used in the qualitative RAs. Further research might provide insightful explanation in this regard by shedding light on the debates on this issue in the literature.

3.2.2. Interpreting

Interpreting was used to provide a speculation about what the findings mean. Writers used their own perspectives and understandings to make sense of findings. In other words, by Interpreting, the writers tried to explain the meaning of the findings which were not clear in the first sight. While in the qualitative sub-corpus two sub-steps were identified for this step, in the quantitative sub-corpus only one sub-step was found (as shown in Table 3).

Table 3. The presence and overall frequency of sub-steps of Interpreting in the corpus

Step	Sub-steps	Presence in RAs		Overall Frequency in the Corpus	
		Quali.	Quanti.	Quali.	Quanti.
1) Interpreting	A) Providing an Interpretation	12	9	17 (80.95%)	20 (100%)
	B) Providing an Interpretation by Referring to Literature	4	**	4 (19.05%)	**

Note: ** indicates that the sub-step was not identified in the sub-corpus

Although two sub-steps were identified in the qualitative RAs, the second sub-step was infrequent and comprised only around one fifth of the whole Interpreting steps identified in the sub-corpus. The following excerpts illustrate the use of these sub-steps in the corpus:

- (4) **The evidence obtained in this study** on the production task **suggests that** the effects of PI not only have an impact on the way that learners interpret sentences but also on the way learners produce sentences... (Quanti-LTR3)

- (5) **The use of** specific grammatical constructions to counter the static quality of visual representations in academic presentations **has been noted by several researchers. Ochs, Gonzales and Jacoby (1994, pp. 162–163) report how** the use of dynamic grammar and gesturing in the presentations of physicists served as devices to help an audience accept the credibility of a scientific experiment through a sort of “virtual witnessing” of the procedure. In the field of architecture, **Medway (1996) reports that** architects in professional practice discuss features of their designs using a dynamic grammar (e.g. “pressing against one another” “pulling back from a square”), and concludes that such language that “graphically expresses the dramas and dynamics occurring between shapes and masses” is typical of architectural discourse (p. 497). **In this sense, Ben’s use of** verbs of motion (e.g. where the building or elements of the building are described as stretching, folding, moving through, and popping up) **can be seen as** helping to convey the dynamic quality of his design... (Quali-ESP1)

While Explaining was preferred in the quantitative RAs, Interpreting was more prevalent in the qualitative sub-corpus. The step was identified in all the 12 qualitative RAs that included Commenting on Findings. Meanwhile, the step was employed only in nine quantitative RAs. In terms of overall frequency, while 61% of the whole Commenting on Findings move was realized by Interpreting in the qualitative sub-corpus, only around 35% of the comments in the quantitative sub-corpus were Interpreting. These differences can be explained again by referring to the differences of qualitative and quantitative research.

Unlike quantitative research which is focused on deterministic causal relationships, prediction, and generalization, qualitative research is concerned with understanding. According to Little (1991, p. 68), understanding or interpreting “involves discovering the meaning of an event or practice in a particular social context”. As Creswell (2003, p. 9) remarks, the aim of qualitative researcher is to “interpret” the multiple meanings that “others have about the world”. Interpretation is an important element in most qualitative researches, to the extent that the concepts of “qualitative research” and “interpretive research” are used interchangeably by some researchers. Interpretation “essentially involves reading through or beyond the findings” which “moves the whole analytic process to a higher level” (Bloomberg & Volpe, 2008, p. 132) and “provides the reader with reasonable insights that were not obvious at first glance” (Struwing & Stead, 2007, p. 172). In this sense, it is not surprising that the qualitative research writers mostly focused on interpreting their findings whenever they provided a comment. They went beyond the ‘objective’ description and tried to offer reasonable insights into the issue and provide interpretation which gave “meaning to the raw data” (Struwing & Stead, *ibid.*).

3.2.3. Evaluating

Among the three identified steps, Evaluating was the least frequent in both sub-corpora (four moves out of 34 Commenting on Findings move in the qualitative and seven out of 56 Commenting on Findings move in the quantitative RAs) (see Table 1). Two sub-steps were identified in each set of articles for this step (as shown in Table 4).

Table 4: The presence and overall frequency of sub-steps of Interpreting in the corpus

Step	Sub-steps	Presence in RAs		Overall Frequency in the Corpus	
		Quali.	Quanti.	Quali.	Quanti.
1) Evaluating	A) Providing an Evaluation	3	**	3 (75%)	**
	B) Providing an Evaluation by Referring to Literature	1	**	1 (25%)	**
	C) Indicating Consistency of Findings with Expected Findings/Hypotheses	**	5	**	6 (85.71%)
	D) Indicating Inconsistency of Findings with Expected Findings/Hypotheses	**	1	**	1 (14.29%)

Note: ** indicates that the sub-step was not identified in the sub-corpus

The step was realized by different sub-steps in each sub-corpus. In the qualitative RAs when the writers used this step, they either provided an evaluation or referred to literature to provide an evaluation about what they had observed and found, e.g. teachers’ methods of teaching or students’ perceptions about a specific issue. In quantitative research, the writers used this step to show consistency/inconsistency of their findings with their own/field’s expectation(s) and/or the hypotheses they had formed previously in their study. The following examples illustrate the use of these sub-steps in each set of articles. In excerpt 6, the writers state their findings in the first two sentences. Their findings indicate that Japanese students who are studying in Australia have problems participating in the classroom activities and the students attribute this to the cultural differences between Japanese and Australian contexts. In the third sentence (starting with *however*), the writers present their own evaluation of this finding and question it by stating that the issue of Japanese students being silent is complicated and other factors than cultural differences are involved.

- (6) The studies revealed that Japanese students do desire, and do attempt, to speak, although they also struggled with their silence. Although Japanese students in the mainstream university classes in Australia showed signs of

crossing the gap between desire and performance, and expressed critical views of speech, both groups presented a similar awareness of the negative values attached to silence in the classroom, and explained their silence by referring to the difficulties of breaking away from the Japanese mode of classroom communication [*Stating Findings*]. **However, any direct link between culture and behavior must be questioned.** Just as cultural explanations may be used erroneously by teachers to explain student silences, cultural explanation can also be used by students to justify their silences or even to identify as silent students. The situation is highly complex, and numerous other factors— including, but not limited to, participant relationships, gender, sexuality, and discussion theme—appear to play a role [*Evaluating the Findings*]. (Quali-TESOL2)

In excerpt 7, the writers refer to literature to evaluate their findings. The first sentence presents the finding which describes two groups of teachers' approaches in classroom and the next two sentences are comments that evaluate these approaches by referring to Kubota and Atkinson and Ramanathan.

- (7) To some extent, although the teachers in Study 1 were more assimilationists, those in Study 2 can be said to take a laissez-faire liberal multiculturalist approach [*Stating Findings*]. **These approaches have been critiqued by Kubota (2004), who proposes “critical multiculturalism” (p. 37), an approach which not only recognises cultural differences but also problematizes the power struggles of minority groups. Furthermore, the different approaches to student nomination may not be in the best interest of students** who, as they leave the EAP classroom and start to participate in the L1 communicative context, need skills to participate voluntarily rather than by nomination (see Atkinson & Ramanathan, 1995) [*Evaluating the Findings*]. (Quali-TESOL2)

Excerpts 8 and 9 are taken from two quantitative RAs. In excerpt 8, the writers indicate the consistency of findings with general expectations. In excerpt 9, in the first sentence the writers restate their hypothesis and in the following two sentences they indicate the consistency and inconsistency of their findings with their hypothesis.

- (8) **This was an anticipated result**, as new and given information is not distinguished primarily by the choice of referential form in Korean oral discourse; neither are third-person pronouns commonly used. (Quanti-PRAG1)
- (9) A further hypothesis was that simple pragmatic phenomena are easier to recognize than complex phenomena are [*Restating the Hypothesis*]. **The prediction was fundamentally confirmed** for mistakes, and our assumptions concerning the inferential load involved in the recognition of simple and complex mistakes were thereby substantiated... **Yet, contrarily to our prediction**, complex deceptions were easier to recognize than simple deceptions were. (Quanti-PRAG3)

4. Conclusion

In this paper, which is part of a large-scale study, we reported our findings of investigating the move of Commenting on Findings in 15 qualitative and 15 quantitative RAs. The analysis showed that commenting on findings is an important communicative unit in both sets of articles. However, the purpose of research (e.g. describing, interpreting, explaining) and the type of questions (e.g. what, how, why) that the study is based on can be a factor in the presence or absence of this move in RAs. Although commenting on findings was common in both sub-corpora, the writers of these two sets of articles favored different strategies to comment on their findings. The analysis showed that while the qualitative RA writers preferred Interpreting, the quantitative RA writers favored Explaining. It was discussed that this can be related to the epistemology of these two types of research and the type of knowledge that they generate.

Explicit description of how and why the article writers comment on their findings in qualitative and quantitative RAs can help particularly students and the novice members of the community. Flowerdew (1999, p. 128), conducting a survey concerning issues of non-native English writers publishing in international refereed journals, found that one of the strategies used by the successful writers was “using implicit knowledge of the “move” structure (discourse organization) of the key parts of the academic article”. However, while senior members of the community have this “implicit knowledge” which they have gained by probably over years of interaction with their community, newcomers to the community lack such knowledge and experience. A large number of books are available in the market which provide some general guidelines on how to write a research article or thesis. These books usually give some general tips on the organization of the whole research article in IMRD (Introduction-Method-Results-Discussion) format and the points that need to be covered in each section without considering the conventions of each discourse community. For instance, most of these books recommend that writers need to comment on their findings in Discussion section. Meanwhile, several genre studies have shown that while commenting on findings is important in some disciplines, it is not a “must” in some other disciplines. For instance, Peacock (2002) studying RAs from seven various disciplines found the move of Explaining as the least frequent and the least widespread move in his corpus. Furthermore, while these guidelines suggest that writers need to comment on their findings, they do not provide further information for their audience on how they need to comment on their findings and what strategies are available to them. By providing more detailed insights, the findings of this study and similar genre studies can empower the new comers and facilitate their entry to the community.

The present study has examined in detail the ways qualitative and quantitative research article writers comment on their findings in the Discussion section. Future research can investigate the other main sections of the research articles in Applied Linguistics to find out how the writers of these two sets of articles organize these sections. Further study can also be conducted in other disciplines which employ both qualitative and quantitative methodology to find out whether they use the same or different rhetorical strategies in various sections of their articles.

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Appendix A

List of the Qualitative Research Articles

- 1) (Quali-APP1)
Gan, Z., Davison, C., Hamp-Lyons, L. (2009). Topic negotiation in peer group oral assessment situations: A conversation analytic approach. *Applied linguistics*, 30(3), 315-334.
- 2) (Quali-APP2)
Flowerdew, J., Li, Y. (2007). Language Re-use among Chinese Apprentice Scientists Writing for Publication. *Applied linguistics*, 28(3), 440-465.
- 3) (Quali-APP3)
Farrell, T. S. C., Tan Kiat Kun, S. (2007). Language Policy, Language Teachers' Beliefs, and Classroom Practices. *Applied linguistics*, 29(3), 381-403.
- 4) (Quali-ESP1)*
Morton, J. (2009). Genre and disciplinary competence: A case study of contextualisation in an academic speech genre. *English for Specific Purposes*, 28, 217-229.
- 5) (Quali-ESP2)
Cheng, A. (2007). Transferring generic features and recontextualizing genre awareness: Understanding writing performance in the ESP genre-based literacy framework. *English for Specific Purposes*, 26, 287-307.
- 6) (Quali-ESP3)
Shi, L., Kubota, R. (2007). Patterns of rhetorical organization in Canadian and American language arts textbooks: An exploratory study. *English for Specific Purposes*, 26, 180-202.
- 7) (Quali-PRAG1) *
Schnurr, S., Marra, M., Holmes, J. (2007). Being (im)polite in New Zealand workplaces: Maori and Pahekeha leaders. *Journal of Pragmatics*, 39, 712-729.
- 8) (Quali-PRAG2)
Ishida, I. (2006). Learners' perception and interpretation of contextualization cues in spontaneous Japanese conversation: Back-channel cue Uun. *Journal of Pragmatics*, 38, 1943-1981.
- 9) (Quali-PRAG3)

Fukuda, C. (2005). Children's use of the masu form in play scenes. *Journal of Pragmatics*, 37, 1037-1058.

10) (Quali-LTR1)*

Springer, S., Collins, L. (2008). Interacting inside and outside of the language classroom. *Language Teaching Research*, 12(1), 39-60.

11) (Quali-LTR2)

Murphy, L. (2005). Attending to form and meaning: The experience of adult distance learners of French, German and Spanish. *Language Teaching Research*, 9(3), 295-317.

12) (Quali-LTR3)

Nkosana, L. (2008). Attitudinal obstacles to curriculum and assessment reform. *Language Teaching Research*, 12(2), 287-312.

13) (Quali-TESOL1)

Higgins, C. (2003). "Ownership" of English in the outer circle: An alternative to the NS-NNS dichotomy. *TESOL Quarterly*, 37(4), 615-644.

14) (Quali-TESOL2)

Ellwood, C., Nakane, I. (2009). Privileging of speech in EAP and mainstream university classrooms: A critical evaluation of participation. *TESOL Quarterly*, 43(2), 203-230.

15) (Quali-TESOL3)

Ko, J., Schallert, D. L., Walters, K. (2003). Rethinking Scaffolding: Examining Negotiation of Meaning in an ESL Storytelling Task. *TESOL Quarterly*, 37(2), 303-324.

Note: * indicates that the article was analyzed by the second analyzer

Appendix B

List of the Quantitative Research Articles

1) (Quanti-APP1)

Conklin, K. & Schmitt, N. (2008). Formulaic sequences: Are they processed more quickly than nonformulaic language by native and nonnative speakers? *Applied linguistics*, 29(1), 72-89.

2) (Quanti-APP2)

Ellis, R. (2006). Modelling learning difficulty and second language proficiency: The differential contributions of implicit and explicit knowledge. *Applied linguistics*, 27(3), 431-463.

3) (Quanti-APP3)

Takahashi, S. (2005). Pragmalinguistic awareness: Is it related to motivation and proficiency? *Applied linguistics*, 26(1), 90-120.

4) (Quanti-ESP1)

Atay, D. & Ozbulgan, C. (2007). Memory strategy instruction, contextual learning and ESP vocabulary recall. *English for Specific Purposes*, 26, 39-51.

5) (Quanti-ESP2)*

Song, B. (2006). Content-based ESL instruction: Long-term effects and outcomes. *English for Specific Purposes*, 25, 406-437.

6) (Quanti-ESP3)

Taillefer, G. F. (2007). The professional language needs of Economics graduates: Assessment and perspectives in the French context. *English for Specific Purposes*, 26, 135-155.

7) (Quanti-PRAG1)

Kang, J. Y. (2004). Telling a coherent story in a foreign language: Analysis of Korean EFL learners' referential strategies in oral narrative discourse. *Journal of Pragmatics*, 36, 1975-1990.

8) (Quanti-PRAG2)

Laval, V. (2003). Idiomatic comprehension and metapragmatic knowledge in French children. *Journal of Pragmatics*, 35, 723-739.

9) (Quanti-PRAG3)*

Adenzato, M. & Bucciarelli, M. (2008). Recognition of mistakes and deceptions in communicative interactions. *Journal of Pragmatics*, 40, 608-629.

10) (Quanti-LTR1)

Takimoto, M. (2006). The effects of explicit feedback on the development of pragmatic proficiency. *Language Teaching Research*, 10(4), 393-417.

11) (Quanti-LTR2)

Bitchener, J. & Knoch, U. (2008). The value of written corrective feedback for migrant and international students. *Language Teaching Research*, 12(3), 409-431.

12) (Quanti-LTR3)

Benati, A. (2005). The effects of processing instruction, traditional instruction and meaning-output instruction on the acquisition of the English past simple tense. *Language Teaching Research*, 9(1), 67-93.

13) (Quanti-TESOL1)*

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, 41(2), 255-283.

14) (Quanti-TESOL2)

Barcroft, J. (2009). Effects of synonym generation on incidental and intentional L2 vocabulary learning during reading. *TESOL Quarterly*, 43(1), 79-103.

15) (Quanti-TESOL3)

Smith, B. (2005). The relationship between negotiated interaction, learner uptake, and lexical acquisition in task-based computer-mediated communication. *TESOL Quarterly*, 39(1), 33-58.

Note: * indicates that the article was analyzed by the second analyzer