A GENRE ANALYSIS ON THE DISCUSSION SECTION OF QUANTITATIVE AND QUALITATIVE RESEARCH ARTICLES IN ELT AND LINGUISTICS

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Abstract: This study aimed at: 1) investigating the move and steps found in quantitative and qualitative research articles discussion; 2) investigating the rhetoric structure patterns of quantitative and qualitative research article discussion. This study is a qualitative-research focusing on genre analysis on qualitative and quantitative RA discussions. There were 20 qualitative and 20 quantitative research article discussions of EFL and applied linguistics journals were investigated in this research. Using Yang & Allison's (2003) framework to analyze the data, it is found that all moves in the framework were employed in RA discussion of both qualitative and quantitative research. However, the number of occurrences of each move were different between discussion section of these two different approaches. Furthermore, the patterns of both qualitative and quantitative RA discussion was not significantly different. There were two types of patterns in RA discussion both in qualitative and quantitative, repetitive pattern and organized pattern. although there were some variations in each of those patterns. The present study provides more evidence of generic structure of RA discussion section as well as proposes some useful insights related to move analysis on research article discussion in ELT and Linguistics area. Limitations and recommendations are discussed in this study.

Keywords: genre analysis, discussion section, research article, move

INTRODUCTION

The publication of Indonesian research has experienced a rapid increase over the past five years, which has led to it being ranked first in ASEAN. In 2019, the number of Indonesian scientific publications published in international journals had reached 22,888 publications. Among ASEAN countries, Indonesia is in second place after Singapore with 24,185 publications. Meanwhile, Malaysia was ranked third, followed by Thailand, Vietnam, and the Philippines. The increasing number of scientific publications in Indonesia makes Indonesia's name more recognized in the research field. Of course, quantity must also be balanced with good quality (Hutapea, 2019).

Scientific journals are an excellent way for communicating research findings, current findings and developments, and future research prospects. Journal articles are critical in academia and are the final result of research. Articles published in an academic journal are approved by experts in their fields so that the journal becomes a reliable source that can be referenced by researchers, policymakers, and the general public. The performance and productivity level can be assessed from the journal articles they publish in the journal. According to Rallison, publishing articles in journals under their field is very important for a researcher's career.

Unfortunately, not all good researchers can convey the results of their writing through articles well. Writing articles is dynamic and complex and requires knowledge and writing ability (Goddard & Sendi, 2008, Rao & Prasad, 2009, quoted from Marashi & Adiban, 2017). Sometimes, the researchers are good at doing research, but they are struggling in writing the report. Some research articles are written less systematically, so that, readers have difficulty reading the article. For this reason, studies about move and rhetorical

pattern have been done by some researchers to identify the pattern of research article writing. The writing pattern then led into the obligatory move that should be written in the field of study (Kanoksilapatham, 2015). Consequently, it will be easier for researchers to write a research article by following the obligatory move and the systematical pattern.

English has been established as global language and used for many purposes such as academic purpose, business purpose, and other purposes both spoken and written. Consequently, the research article (RA) in English has become a tool of scholarly communication and academic knowledge exchange among academics from various discourse groups. However, not all researchers can write their report in English well. It implies to the variety of the writing by the researchers in writing the research article. A study called as genre analysis is able to explore how rhetorical structure, including the RA, can be used to differentiate texts based on the sequence of moves and steps. (Hussin & Nimehchisalem, 2018).

Due to its educational implications, the study of the academic genre has become a focus of English for Specific Purposes (ESP) and English for Academic Purposes (EAP) researchers in the recent past. Since Swales' (1990) publication of the updated Create a Research Space (CARS) model, several genre-based studies have focused on the underlying schematic structure of RAs (arrangement of moves and steps). According to Swales (2004), A text within a genre tends to follow a regular textual pattern, consisting of a number of distinct actions sequenced in a specified order that are also achieved by a series of processes, according to the genre analysis technique. "Move" refers to a discourse segment that provides a specific communication function (Swales, 2004) whereas a "step" is defined as "a lower-level text than the move that gives a clear picture of the available alternatives to the writer while laying out the moves".

From the time being, many researchers have been conducting studies on the schematic structure of research article in depth by analyzing each section of RA such as the abstract part, introduction part, and also the discussion part. Furthermore, the researchers conducted their study by comparing some aspects such as the type of the research (quantitative and qualitative), the scope of the journal (national and international), and also the discipline of the study (one discipline to the other). Jalilifar, Hayati, and Namdari (2012) conducted research on the schematic structure of local and international journal. The finding indicated that except for move 5, there are no significant quantitative variations between the moves used by the two groups of RAs (Reference to previous research). Massoum and Yazdanmehr (2019) conducted a genre analysis of native and non-native MA theses of English speakers. The findings revealed that the genre followed in the discussion section of native and non-native M.A theses differs statistically significantly. Moreover, the move pattern in different disciplines can characterize differences (Darabad, 2016). Juanda (2020) conducted a study comparing the abstract of RA in different fields, natural science and social science. The finding indicated that in natural science, introduction, methodology and findings were the most manifested. on the other hand, the abstract on social science manifested more on introduction, purpose, methodology, and findings.

The discussion portion of RAs is one of the most essential sections because it is here that authors demonstrate the knowledge contribution of their research findings to the existing literature. The discussion section plays an important role in RAs in that researchers should place their work in reference to previous studies in the discipline, therefore contributing to disciplinary knowledge in their fields (Basturkmen, 2012; Yang & Allison, 2003). The section in

which writers explain "why the results occurred as they did", compare their results to previous research, and discuss the significance of results has been defined as the main communicative function of discussion sections (Bitchener, 2010). In other words, in this section, the authors explain why their research findings are in the ways they are and what they mean in their reasearch. The discussion section, on the other hand, has been proven to be the most difficult part of RAs, theses, and dissertations to write for both native and non-native English speakers (Bardi, 2015; Swales, 2004). According to Belcher, as cited in Arsyad (2013), the quality of a RA's discussion section affects the RA's overall quality and therefore, writers have to write it carefully conforming to the appropriate discourse structure and style.

In addition, the rhetoric structure of the discussion of the results section has gained growing attention in English for academic purposes (EAP) genre-based studies, and this section has been investigated in individual disciplines or disciplinary areas (Basturkmen, 2009, 2012; Yang & Allison, 2003). Some studies have identified a sequence of moves and steps common to the discussion sections in different disciplines, and the moves and steps identified were ascribed to distinct frameworks used but not unique to the different disciplinary areas explored. In addition, research has revealed that the discussion sections contained the presence of repeated cycles of moves and no obligated moves were reported across the disciplines evaluated (Peacock, 2002).

Relevant to the current study are the recent studies of Yang and Allison (2003) and Basturkmen (2009, 2012). Yang and Allison (2003) investigated the final sections (results, discussions, and conclusions) of RAs in applied linguistics. They further claimed that, although the same set of seven moves appeared in all final sections, commenting on results was the most frequent and obligatory move and could occur

multiple times in the discussion sections. The two moves of reporting results and summarizing results together occurred less frequent, although the former occurred in all but one of the discussion sections. As a consequence, Yang and Allison (2003) considered the reporting results move as a quasi-obligatory move. The commenting on results move is further investigated by Basturkmen (2009) in discussion sections in RAs and master's dissertations from the field of language teaching. Basturkmen found that both RA authors and master's dissertation authors discussed their findings primarily through a series of result–comments sequences in which results from their study were discussed one by one or as sets of related results. Furthermore, Basturkmen's (2012) investigation of the steps in commenting on results move in the dentistry RAs' discussion of results section. Basturkmen (2012) found that Yang and Allison's (2003) moves/steps framework of the discussion section in applied linguistics is mostly applicable as the move/step types identified were similar to those described in applied linguistics (Basturkmen, 2009; Yang & Allison, 2003).

Therefore, the current study aims to explore the rhetoric structure and the patterns of quantitative and qualitative RA discussion sections from the field of English Language Studies and Linguistics, using the relevant existing frameworks of discussion sections provided in Yang & Allison (2003). Indeed, it is expected that the obtained results of this study could be employed to engage writers to be more conscious of the rhetorical structure that may exist between the discussion sections in quantitative and qualitative research articles.

LITERATURE REVIEW
According to Hyland, genre has a communicative practice that can influence readers by the type of the text (Hyland, 2015).

Swales (1990) explained that a genre can be identified by their schematic structures that show their communicative purposes.

Hyland (2007) says that genres are description of the rhetorical movements to perceived constant conditions; also recognizing certain forms of language/meaning varieties as indicating effective ways of getting things done in familiar context. It means that the writers draw on genre in continual situation that they use rhetorical movement as way to answer and to identify the research based on societies' need. Swales noted that genre functions and forms change with time and across discourse communities. For instance, the writing of research article in Indonesia may differ from research article from another country in term of form. Thus, study concerning on writing as a genre is always needed.

Based on the concept of genre and its use in language teaching and learning, Hyland states that genre has two purposes. The first is to understand the connection between language and its context of use. This case explains that how people use language to get used to and figure out specific communicative conditions and the behavior practices change over time. The second is to use this knowledge in the examination of language and literacy education (Hyland, 2002).

According to Swales and Bhatia (cited by Johansen, 1997), there are three elements included in structuring genre. Those elements are communicative purposes, moves and rhetorical strategies. Communicative purpose means text-genre that has aim to socialize the rule of the text, knowing the communicative purpose of genre helps the society to recognize the determination of the text. Furthermore, Bhatia in Johansen (1997) defines move as the communicative purpose component the general criteria for a certain text-genre and provide the organization of a text into a number of constituents. Also, rhetorical strategy indicates the option of

the writers in arranging their private purposes are non-discriminative strategies which means that the options do not affect or modify the nature of a genre.

This study focused on the second point, which is to analyze the rhetorical move found in RA discussions. In doing so, this study adopted Yang and Allison's (2003) framework to analyze the RA discussions. This framework consists of seven moves and nine steps as follow.

Move 1: Background Information
Move 2: Reporting Results
Move 3: Summarizing Results
Move 4: Commenting on results
  Step 1: Interpreting results
  Step 2: Comparing results with literature
  Step 3: Accounting for results
  Step 4: Evaluating results
Move 5: Summarizing the study
Move 6: Evaluating the Study
  Step 1: Indicating information
  Step 2: Indicating significance/advantage
  Step 3: Evaluating methodology
Move 7: Deductions from the research
  Step 1: Making Suggestions
  Step 2: Recommending further research
  Step 3: Drawing pedagogic implications

Furthermore, several studies have been conducted to identify the rhetorical organization of discussion section in research article. Examining the final sections of RAs (results, discussion, and conclusion) in applied linguistics, Yang and Allison (2003) report that move 4 (commenting on results) stands out to be the obligatory move that most frequently occur, sometimes repeatedly in the discussion sections. Basturkmen (2012) conducted a research on the same topic, but different disciplines. She found that Yang and Allison's (2003) moves/steps framework of the discussion of results sections in applied linguistics is generally applicable because

the move/step types discovered in her study were similar to those described in applied linguistics

A study on Malaysian undergraduate final year projects by Hussin and Nimehchisalem (2018) found move 2 (reporting results) and move 4 (commenting on results) as the most used moves in the texts. On the other hand, disciplinary differences show different trend of move use in discussion section: with move 2 (findings) and move 5 (explanation) are considered as obligatory in AL discipline, while in MS discipline, move 7 (concluding information) is the only obligatory move (Al-Shujairi, Tan, Abdullah, Nimehchisalem, and Imm, 2019). According to those studies, they were focusing on the frequent move found in RA discussion without looking at genre difference of the the RA. This study aimed at investigating the most frequent move found in qualitative and quantitative RA discussions. Furthermore, this study is also trying to find out the pattern of the moves in RA discussions.

METHOD

This study is a qualitative-research with genre analysis design since the purpose of this research is to identify specified characteristics of the research article discussion sections. The data of this study were 40 research article discussions in the field of English Language Studies and Linguistics, both quantitative and qualitative. The research articles used were published in 2018-2021 in TEFLIN and IJAL. This data was obtained by retrieving from the official website of the journals (TEFLIN: http://journal.teflin.org/index.php/journal; IJAL: https://ejournal.upi.edu/index.php/IJAL).

In this study, the move and the pattern of research article discussion were analyzed through a rubric was adapted from Yang & Allison (2003). The rubric contained seven moves and nine steps. The data were downloaded and

classified into qualitative RA and quantitative RA categories. The discussion section in the articles were then scrutinized to identify the moves and the steps in each move. The moves and the steps that have been labeled using the rubric of Yang and Allison (2003) were put in tables to get the final results.

FINDINGS
The Frequency of Move Found in the RA Discussion
The number of rhetoric structures of qualitative and quantitative research article discussion is presented in Table 1.

Table 1 The number of move found in RA discussion

Moves/Steps	Qualitative RA (N=20)		Quantitative RA (N=20)	
M1: Background Information	12	60%**	11	55%*
M2: Reporting result	20	100%***	20	100%***
M3: Summarizing result	3	15%*	6	30%*
M4: Commenting on Result				
S1: Interpreting result	17	85%**	10	50%*
S2: Comparing Result with Literature	18	90%**	17	85%**
S3: Accounting for Result	11	55%*	18	90%**
S4: Evaluating Result	1	5%*	4	20%*
M5: Summarizing the Result	2	10%*	5	25%*
M6: Evaluating the Study				
S1: Indicating Limitations	3	15%*	5	25%*
S2: Indicating Significance/Advantage	3	15%*	4	20%*
S3: Evaluating Methodology	1	5%*	1	5%*
M7: Deduction from the Research				
S1: Making Suggestions	10	50%*	7	35%*
S2: Recommending Further Research	3	15%*	4	20%*
S3: Drawing Pedagogic Implication	5	25%*	7	35%*

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The following description presents the function and realization of each of the identified move.

Move 1: Background information
This move is used to inform the reader about the study by giving them knowledge about the main statements such as the aim of the study, theoretical background, and the methodology. The number of Move 1 in qualitative and quantitative RA discussion is presented in Table 2.

Table 2 The number of move 1 found in RA discussion

RA Discussion	N	Move 1
Qualitative	20	12
Quantitative	20	11

As presented in Table 2, there were 12 Move 1 found in qualitative RA discussion and 11 Move 1 were found in quantitative RA discussion. It means that the qualitative RA discussion tends to include background information in the beginning of the discussion section. Furthermore, Move 1 was considered as a conventional move in qualitative RA discussion and an optional move in quantitative RA discussions, occurring at a frequency of 60% in qualitative RA discussion, and 55% in quantitative RA discussion. The realization of the move 1 in qualitative and quantitative RA discussions are as follows.

Qualitative:
1. ***This study advocates*** the tension between professional development participation and online PL engagement.
2. ***The discussion of findings in this section is organized*** into four general headings, following types of suffixes mentioned previously

Quantitative:

1. ***The main goal of the study is*** *to examine the relationship between reader knowledge (grammatical knowledge) and textual features (lexical frequency) on second-language reading outcomes by Indonesian learners of English as a foreign language.*
2. ***This study has investigated a major question*** *of whether or not the EFL students who had higher **motivation** in writing also had better writing proficiency.*

Move 2: Reporting Result

This move is used to report the result of the study. Normally, the result is presented as well as the evidence such as examples and statistical result. Table 3 shows the number of Move 2.

Table 3. The number of move 2 found in RA discussion

RA Discussion	N	Move 2
Qualitative	20	20
Quantitative	20	20

According to the table, all of the qualitative and quantitative RA discussions employed this move in the discussion section. Furthermore, reporting result is categorized as obligated move both in qualitative and quantitative RA discussion with the frequency of occurrence 100%. It implied that reporting result is the move that should not be absent as it is considered as crucial part in the discussion section. The realization of this move are as follows.

Qualitative:

1) ***The questionnaire data showed that*** *they were happy and enthusiastic about the lower steps of the IEWF task, especially exploring LL using Google Maps, which was stress-free and interesting.*
2) ***The findings revealed that*** *the main challenges to remote teaching and learning were related to lack of appropriate devices, poor internet connectivity, high cost of internet data and lack of technological competence of both students and teachers.*

Hilmi, A. Z., Toyyibah, & Afifi, N. (2021). A genre analysis on the discussion section of quantitative and qualitative research articles in ELT and linguistics.

Quantitative:
1) ***This study has revealed*** *the medium effect of grammatical knowledge on L2 reading outcomes (r = .56).*
2) ***The results of analysis indicate that*** *the listening and reading test forms of both the 2016 TOEP and 2017 TOEP are equivalent.*

Move 3: Summarizing result

The next move according to Yang & Allison's (2003) model is summarizing result. This move summarizes and presents some integrated results generally in shorter way. In other words, this move is the summary of a number of results found in a certain study. The present study found that the occurrence of this move is very low. There are only three numbers of Move 3 in qualitative RA discussion and six numbers of this move in quantitative RA discussion. Table 4 presents the detailed information.

Table 4 The number of move 3 found in RA discussion

RA Discussion	N	Move 3
Qualitative	20	3
Quantitative	20	6

Moreover, Move 3 is optional move both in qualitative and quantitative RA discussions. It implied that the absence of Move 3 does not significantly affect the discussion section. The arguing statements of Move 3 are presented below.

Qualitative:
1) ***In short****, they lacked the information-seeking behaviour as university students.*
2) ***In conclusion****, the suffixes which belong to the Level 2 noun suffixes in COCA academic are -al, -ism, -(r)y, -ary/-ery/-ory, -ship, and -ure.*

353

Quantitative:
1) ***Overall**, they were able to identify a writer's main idea, purposes, and identify the structures/organization of a text.*
2) ***Thus, it can be said that** interpersonal and general mood categories of Tunisian IT students are more significant than intrapersonal, adaptability, and stress management categories.*

Move 4: Commenting on result

Commenting on Result is the move that enables the author to give comments and determine the meaning of the research result. There are 4 steps included in this move, such as: 1) Interpreting result, 2) Comparing results with literature, 3) Accounting for result, and 4) Evaluating result. Table 5 presents the numbers of steps in Move 4 used in qualitative and quantitative RA discussion.

Table 5 The number of move 6 in RA discussion

RA Discussion	N	Move 4			
		Step 1	Step 2	Step 3	Step 4
Qualitative	20	17	18	11	1
Quantitative	20	10	17	18	4

The table shows that there were 17 qualitative and 10 quantitative RA employed the Move 4 Step 1 (M1S1) in the discussion section. The number of the occurrence of M4S1 in the discussion section was significantly different between qualitative and quantitative RA. In addition, almost all qualitative and quantitative RA employed Move 4 Step 2 (M4S2) in their discussion sections. It indicated that comparing result with the literature is considered crucial in writing RA discussion. Furthermore, there were 11 qualitative and 18 quantitative RA employed Move 4 Step 3 (M4S3) in the discussion section. Lastly, the small number of Move 4 Step 4 were also found in qualitative and quantitative RA discussion in the field of ELT and Linguistics.

Hilmi, A. Z., Toyyibah, & Afifi, N. (2021). A genre analysis on the discussion section of quantitative and qualitative research articles in ELT and linguistics.

Moreover, there were a significant difference between qualitative and quantitative RA discussion in the use of Move 4. In qualitative RA discussion, M4S1 is considered a conventional move, while in quantitative RA discussion it was optional. In contrast, M4S3 was considered as the conventional move in RA discussion, while it was optional in qualitative RA discussion. In addition, M4S2 was a conventional move in both qualitative and quantitative RA discussion. Furthermore, M4S4 was also conventional move both in qualitative and quantitative RA discussion. Here are the arguing statements found in Move 4.

Step 1: Interpreting result
The following is the interpreting result statements found in qualitative and quantitative RA discussion.
Qualitative:
1) ***As such the findings show that*** *PD policies influence teachers' PD disposition.*
2) ***They seem to be*** *aware of the importance of technology in their practices.*
Quantitative:
1) ***This means that*** *EFL students, especially those who are learning English in an Indonesian university context, are likely to be more successful to reach a higher level of writing proficiency if they have good motivation in writing.*
2) ***This implies that*** *the students who want to be good at writing have to continuously grow their motivation in attending writing courses and in working on the assignments given in the courses.*
Step 2: Comparing results with literature
Here are statements of comparing result with literature found in qualitative and quantitative RA discussion.
Qualitative:
1) *This particular belief **was congruent with** findings from some studies…*
2) *The illustration of the films **is a parallel to** what is shown in the research on neoliberalism in American higher education.*

Quantitative:

1) *This finding* **is consistent with** *that of Wu et al. (2016) who found that items with a low discriminating power will lower the test reliability.*

2) *This finding* **contradicts** *the theory of Spolsky (1989) about the condition of exposure…*

Step 3: Accounting for result

Here is the employed M4S3 found in qualitative and quantitative RA discussion.

Qualitative:

1) **This might explain why**, *in the questionnaire, there were 33% of the teachers who thought that the time allocated for the postteaching conference was not enough.*

2) *This situation* **could be caused by** *the practice of top-down policy.*

Quantitative:

1) *Furthermore, the huge cognitive diversity among students* **might be the decisive factor** *as to why some studies found both approaches as equally effective.*

2) **There are three likely possible reasons that might be related to** *the low discriminating power.*

Step 4: Evaluating result

In evaluating results, qualitative and quantitative RA discussion used these following statements.

Qualitative:

1) **This finding is justifiable** *because criticism which requires expression of attitudes is central in the LR*

Quantitative:

1) *These findings* **are meaningful**, *as they conflict with the FRL notion that…*

2) *These results* **paint a discouraging picture**, *especially when we consider the fact that the participants had completed…*

Move 5: Summarizing the result

This move is used to give a short summary related to the overall research results. In applying this move, writers use some phrases that indicate a conclusion. The number of this move found in the study is presented in Table 6.

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Table 6 The number of move 5 found in RA discussion

RA Discussion	N	Move 5
Qualitative	20	2
Quantitative	20	5

According to the table, there are small numbers of Move 5 both in qualitative (n=2) and quantitative (n=5) RA discussion. Furthermore, Move 5 was considered as optional move as the percentage of occurrence was below 60%. It means that, there is no significant effect when the writer employed this Move in the discussion writing. Furthermore, the arguing statements of the Move 5 are as follows.

Qualitative:
1) ***Finally, the finding implies that*** *employing different tasks and activities would lead to various WTC patterns.*
2) ***Overall, the current research findings have shown that*** *English pre-service teachers still need more…*

Quantitative:
1) ***This study has verified that*** *the teaching of English at the primary school has at least contributed to…*
2) ***Therefore, it can be said that*** *Tunisian students feel positive and optimistic about learning English as they believe that…*

Move 6: Evaluating the study

The next move according to the Yang & Allison's (2003) framework is evaluating the study. In evaluating the study, there are three steps that can be done by the writer, such as: 1) indicating limitation, 2) indicating significance/advantage, and 3) evaluating methodology. This move is used to evaluate the study, whether it is significant in such area and limited in other area, such that it notices the readers not to just generalize the result as they want. The number of the Move 6 found in qualitative and quantitative RA discussions are as follow.

Table 7 The number of move 6 found in RA discussion

RA Discussion	N	Move 6		
		Step 1	Step 2	Step 3
Qualitative	20	3	3	1
Quantitative	20	5	4	1

According to the table, the number of RA discussion that employed this move were so small. Moreover, Move 6 was considered as an optional move as the percentage was below 60%. Furthermore, the arguing statement of Move 6 are as follow.

Step 1: Indicating limitations
Qualitative:
1) *The range in this study is* three to six words
2) *This study is based on the opinions of a single teacher and,* **consequently, the generalization of the results obtained is unfeasible.**

Quantitative:
1) **Unlike… the present study only** *involved students of English Department.*
2) *However,* **these findings cannot be generalized** *since this study is focused on measuring the students' receptive skills, and* **the sample is considered small**

Step 2: Indicating significance/advantage
Qualitative:
1) *This type of evaluation* **is essential because**…
2) *which, in turn,* **might have a positive impact on** *students' language learning processes and personal growth.*

Quantitative:
1) *This highlights the* **significant influence** *of vocabulary mastery at those levels on reading comprehension.*
2) *They can* **take the findings of this study into account** *and develop bilingual systems of education for bilingual regions.*

Step 3: Evaluating methodology
Qualitative:
1) *There was,* **however, an issue with regard to time allocation** *for the post-teaching conference.*

Hilmi, A. Z., Toyyibah, & Afifi, N. (2021). A genre analysis on the discussion section of quantitative and qualitative research articles in ELT and linguistics.

Quantitative:

1) *The current study**, however, focused on second-grade senior high school students whose ages ranged from 16-18.***

Move7: Deduction from the research

The last Move identified in RA discussion according to Yang & Allison (2003) is making deduction from the research. This move was employed beyond the result by suggesting how to solve the issues identified (S1), highlighting the line of further research (S2), or elaborating pedagogic implication (S3). The number of Move 7 found in qualitative and quantitative RA discussions can be seen in Table 8.

Table 8 The number of move 7 found in RA discussion

RA Discussion	N	Move 7		
		Step 1	**Step 2**	**Step 3**
Qualitative	20	10	3	5
Quantitative	20	7	4	7

Furthermore, Move 7 was an optional Move. However, the frequency of Move 7 in RA discussion was still higher than Move 5 and 6. Moreover, the arguing statement of Move 7 are presented down below.

Step 1: Making suggestions

Qualitative:

1) *All these findings hence **suggest** a need for a review of the university current curriculum.*
2) *The knowledge sharing culture in online engagement **needs to** be encouraged.*

Quantitative:

1) *The activities **should not** only centered on topic selection and writing assignment…*
2) *the results of this study **suggest** three major points that a school should pay attention to…*

Step 2: Recommending further research
Qualitative:
1) *This would **require further exploration** on the use of the reflection checklist to identify…*
2) *In conclusion, **more research studies** investigating students' attitudes toward MALL based tools **are still needed**, especially those that consider*
3) *Finally, **more studies should also be conducted to** check students' perceptions on the use of films in the English class as compared with those by teachers.*

Quantitative:
1) ***further qualitative research is needed** to examine…*
2) *Investigating the effectiveness of spacing techniques on elementary and upper-intermediate students **may be the purpose of future studies.***
3) *It means that this model **can be used for further studies** on the relationship between these constructs.*

Step 3: Drawing pedagogic implication
Qualitative:
1) *Another sense is that the **implementation of this approach would** entail providing necessary support, or professional development for English specialists.*
2) *Therefore**, teachers might need to emphasize the explicit instruction** of them logically by paying attention to the extent the learners benefit the instruction.*

Quantitative:
1) *The results of the study **imply that motivational aspects need to be considered** and included in the teaching and learning process of writing*
2) *The findings of this study suggest some **productive implications in terms of improving reading comprehension** through cultural content instruction.*

The rhetoric structure pattern in RA discussions

This study also aimed at investigating the rhetoric structure of RA discussions. The patterns of qualitative RA discussions can be seen in Table 9.

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Table 9 The patterns of rhetoric structure in qualitative RA discussion

No	Pattern										
1	M1	M2	M4S1	M2	M4S1	M4S3					
2	M2	M4S2	M4S3	M6S3							
3	M2	M4S2	M4S3	M7S1	M7S3						
4	M1	M2	M3	M4S1	M4S2	M7S1					
5	M2	M4S1	M4S2	M7S3							
6	M2	M4S1	M4S2	M2	M4S1	M4S2	M7S2				
7	M2	M4S1	M4S2	M4S3	M5	M7S1	M7S3				
8	M2	M4S2	M6S1	M6S2	M7S1						
9	M1	M2	M3	M4S1	M4S3						
10	M2	M4S1	M2	M4S1	M4S2	M6S1					
11	M1	M2	M4S1	M4S2	M2	M4S1	M4S2	M4S3	M4S4		
12	M1	M2	M3	M4S1	M4S2	M6S2	M7S3				
13	M1	M2	M4S1	M4S2	M4S3	M6S2	M7S1	M7S2			
14	M1	M2	M4S1	M4S2	M4S3	M2	M4S2	M6S1	M6S2	M7S1	M7S2
15	M1	M2	M4S1	M4S2	M4S3						
16	M1	M2	M4S1	M4S2	M5	M6S2	M7S1	M7S3			
17	M1	M2	M4S2	M7S1							
18	M2	M4S1	M4S2	M4S3							
19	M1	M2	M4S1	M4S3							
20	M1	M2	M4S1	M4S2	M7S1						

According to the table above, there were a lot of variations of the pattern of rhetorical structure found in qualitative RA discussions. Most of the patterns were consisted of four to five moves. Furthermore, there were some repeated moves found in the qualitative RA discussions. Moreover, the patterns of quantitative RA discussions can be seen in Table 10.

Table 10 The patterns of rhetoric structure in quantitative RA discussion

No	Pattern											
1	M2	M4S1	M4S2	M4S3								
2	M1	M2	M4S1	M4S2	M4S3	M4S4	M5	M7S2				
3	M2	M4S1	M4S3									
4	M2	M4S1	M4S2	M4S3	M2	M4S3	M2	M4S3	M5	M6S2	M7S1	
5	M2	M3	M4S2	M4S3	M4S4	M6S3						
6	M1	M2	M3	M4S3	M7S1	M7S3						
7	M1	M2	M4S1	M4S2	M4S3	M4S4						
8	M1	M2	M4S1	M4S2	M5	M6S1	M7S1	M7S3				
9	M1	M2	M4S2	M4S3	M7S1							
10	M2	M4S2	M7S3									
11	M1	M2	M3	M4S1	M4S2	M4S3	M2	M4S2	M5	M6S1		
12	M1	M2	M4S2	M4S3	M7S1							
13	M2	M3	M4S1	M4S2	M4S3	M4S4	M2	M4S2	M4S3	M6S1	M6S2	M7S1	M7S3
14	M2	M3	M4S2	M4S3	M2	M4S2	M4S3	M6S1	M6S2	M7S2	M7S3	
15	M1	M2	M3	M4S1	M4S2	M4S3						
16	M1	M2	M4S2	M4S3	M5							
17	M1	M2	M4S3	M7S3								
18	M2	M4S2	M4S3	M6S1	M6S2	M7S1	M7S2					
19	M1	M2	M4S2	M4S3	M2	M4S2	M4S3	M7S2				
20	M2	M4S1	M4S2	M4S3	M7S3							

Based on the table above, there were also found many variations of the pattern of rhetorical structure in qualitative RA discussions. There were some patterns which only consisted of two moves and three moves. In contrast, there was a pattern consisted of six moves which considered as the complete pattern. In line with the pattern found in qualitative RA discussions, there were also some repeated moves found in the qualitative RA discussions.

According to the data presentation, there were a lot of variations of the pattern found in qualitative and quantitative

RA discussion. Nevertheless, the patterns of both qualitative and quantitative RA discussion were not significantly different. Generally, there were two types of patterns in RA discussion both in qualitative and quantitative RA discussions. They were repetitive pattern and organized pattern.

The first type of pattern was repetitive pattern. It was found that there was a repetition in using M2-M4 in the discussion section. The example can be seen in this following pattern.

M2-M4S1-M4S2-M2-M4S1-M4S2-M2-M4S1-M4S2-M6S1

This kind of pattern was found in the RA that the finding and discussion section was not separated. It implies that the writer commented on the result directly after stating the result and concluded by stating the limitation of the study.

The second pattern was organized pattern. The second pattern was aligned with Yang & Allison's (2003) framework. In this pattern, the moves were sequentially organized from move one to move seven. The second pattern indicated the result in the beginning of the discussion section, and continued to comment to the result and give conclusion and recommendation. The example can be seen in the following pattern.

M1-M2-M4S1-M4S2-M4S3-M6S1-M6S2-M7S1-M7S2

In this pattern, the moves were well organized aligned with the framework.

DISCUSSION

According to the data analysis using Yang & Allison's (2003) framework, it is found that all Moves in Yang & Allison's Framework were employed in RA discussion writing in the field of ELT and Linguistics. However, the number of occurrences of each move were different between qualitative and quantitative RA discussion. Furthermore, it is highlighted

that Move 2 was the obligated move both in qualitative and quantitative RA discussion. Moreover, Move 1 and Move 4 Step 1 (M4S1) were categorized as conventional move in qualitative RA discussion, and optional move in quantitative RA discussion. In contrast, Move 4 Step 3 (M4S3) was an optional move in qualitative RA discussion, but conventional move in quantitative RA discussion.

The finding of the current study was in line with a study conducted by Nodoushan & Khakbaz (2011) that Move 2 (reporting result) was an obligated move that should be written in the RA discussion. The same result was also found in the study conducted by Hussin and Nimehchisalem (2018). They found that the moves most used were "Reporting results" and "Commenting on results." This is logical in the sense that the result of the study is a part of research that is discussed in the discussion section. It is also the most crucial part in research as it answers all the questions asked by the researcher. The result of the study is also a new knowledge that is empirical and factual.

However, Yang & Allison (2003) considered "reporting results" move as quasi-obligatory since both "results" and "summarizing results" moves rarely occurred together in a text. On the other hand, "commenting on results" becomes the obligatory move since it is found most frequently and can be found repeatedly in the discussion sections. Basically, the function of the discussion section is to address the significance of the finding by presenting the previous studies and explain any new insight as a result of the study.

In this study, it is also known that there were small numbers of the use of Move 5, 6, and 7. The Move 5 (summarizing the study) functions to sum up the overall results of the study. The Move 6 (evaluating the study) was used to indicate limitations, significance, and the evaluation of the methodology. Furthermore, Move 7 presents the

deduction of the research by giving suggestion and recommendation. The small numbers of the use of move 5 probably because of the results were clear enough. Moreover, the conclusion and recommendation part in the end of RA that contains suggestion, recommendation, and implication causing the number of Move 6 and 7 in RA discussion small.

The patterns of both qualitative and quantitative RA discussion were not significantly different. There were two types of patterns in RA discussion both in qualitative and quantitative, repetitive pattern (pattern A) and organized pattern (pattern B). The repetitive pattern means that certain moves were used repeatedly in a section. They were arranged in various ways, and they tended to form a cycle. Some moves were identified combined in different ways, nevertheless, it was found that there were some move sequences that were more common and used more frequently than others such as Move 2, Move 4, and Move 7. This finding is in line with Boonyuen (2017). The finding indicated that there were some repeated moves in the discussion section in research article.

Furthermore, there was no significant difference found in the pattern of qualitative and quantitative RA discussions. It is also found in this study that the discussion session which is not separated from finding session tended to have repeated cycles in the move structures. This was possibly because there were some results presented in the study, so that, the writer intended to make the results clear by giving comments and justifications directly.

In contrast, the discussion section that was separated from the result section tended to have an organized move structures in sequence as Yang & Allison's (2003) framework. In some RA discussions both quantitative and qualitative, the results of the study were reported in the beginning, followed by the interpretation of the result by the writer, and some previous studies that support or against the findings. In some

RA discussion, some possibilities were also proposed by the writer, followed by the deduction of the study.

In summary, this study reported that there was no significant difference between qualitative and quantitative RA discussions in the field of ELT and Linguistics. However, the study found some differences regarding the importance of the moves in RA discussion. Move 1 and Move 4 Step 1 (M4S1) were categorized as conventional move in qualitative RA discussion, and optional move in quantitative RA discussion. In contrast, Move 4 Step 3 (M4S3) was an optional move in qualitative RA discussion, but conventional move in quantitative RA discussion.

The result of this study may contribute as a reference for those who are interested in genre analysis, especially rhetoric structure analysis. However, this study is limited in terms of the small number of samples which are only taken from TEFLIN (representing ELT journals) and IJAL (representing linguistics journals) . It is suggested for further researchers who wants to conduct their study in this topic to add the amount of data, so that, the result of the future study can be generalized in wider area. Furthermore, the current study only compared the rhetoric structure of the qualitative and quantitative RA discussion. The future study might compare across disciplines, so that, the result can add the findings of the current study.

CONCLUSION

According to the data analysis using Yang & Allison's (2003) framework, it is found that all Moves in Yang & Allison's Framework were employed in RA discussion writing in the field of ELT and Linguistics. However, the number of occurrences of each move were different between qualitative and quantitative RA discussion. Furthermore, it is highlighted that Move 2 was the obligated move both in qualitative and

quantitative RA discussion. Moreover, Move 1 and Move 4 Step 1 (M4S1) were categorized as conventional move in qualitative RA discussion, and optional move in quantitative RA discussion. In contrast, Move 4 Step 3 (M4S3) was an optional move in qualitative RA discussion, but conventional move in quantitative RA discussion.

The patterns of both qualitative and quantitative RA discussions were not significantly different. There were generally two types of patterns in RA discussion both in qualitative and quantitative, repetitive pattern (pattern A) and organized pattern (pattern B). However, both patterns have different variation in each RA discussion.

The present study provides more evidence of generic structure of RA discussion section as well as proposes some useful insights related to move analysis on research article discussion in ELT and Linguistics area. However, the sample of the study is considered limited, it is recommended for future studies to use a great number of samples so that the generalization can be done in wide area. This study also recommends for RA writers to use the Yang & Allison framework in writing their discussion sections. The move in Yang & Allison's (2003) framework can facilitate the writer to connect the current finding with the previous studies and recommend further studies, so that, it minimizes the gaps.

REFERENCES

Al-Shujairi, Y.B.J., Tan, H., Abdullah, A.N., Nimehchisalem, V., & Imm, L.G. (2019). Moving in the right direction in the discussion section of research articles. *Journal of Language and Communication*, 6(2), 23-38.

Arsyad, S. (2013). A genre-based analysis on discussion section of research articles in Indonesian written by Indonesian speakers. *International Journal of Linguistics*, 5(4), 50-70. http://dx.doi.org/10.5296/ijl.v5i4.3773

Bardi, M. (2015). Learning the practice of scholarly publication in English – A Romanian perspective. *English for Specific Purposes*, 37, 98-111.

Basturkmen, H. (2009). Commenting on results in published research articles and masters dissertations in language teaching. *Journal of English for Academic Purposes*, 8, 241-251.

Basturkmen, H. (2012). A genre-based investigation of discussion sections of research articles in dentistry and disciplinary variation. *Journal of English for Academic Purposes*, 11, 134-144.

Bitchener, J. (2010). *Writing an applied linguistics thesis or dissertation: A guide to presenting empirical research. Basingstoke*. UK: Palgrave Macmillan.

Darabad, A. M. (2016). Move analysis of research article abstracts: A cross-disciplinary study. *International Journal of Linguistics*, 8(2), 125. https://doi.org/10.5296/ijl.v8i2.9379

Hussin, N.I.S.M., & Nimehchisalem, V. (2018). Organisation and move structure in the results and discussion chapter in Malaysian undergraduates' final-year projects. *Pertanika J. Soc. Sci. & Hum*. 26(4), 2365-2377.

Hutapea, E. (2019). *Publikasi Riset Indonesia Kini Pertama di ASEAN*. Kompas, 16/10/2019

Hyland, K. (2015). Genre, discipline, and identity. *Journal of English for Academic Purposes*. Vol 19, 32-43. DOI: 10.1016/j.jeap.2015.02.005

Hyland, K. (2007). *Genre and second language writing (4th ed.)*. USA: The University of Michigan Press.

Hyland, K. (2007). Genre pedagogy: Language, literacy and L2 writing instruction. *Journal of Second Language Writing*, 16, 148-164.

Hyland, K. (2002). *Annual Review of Applied Linguistics: Genre: Language, Context, and Literacy*. USA: Cambridge University Press.

Jalilifar, A., Hayati, A.M., & Namdari, N. (2012). A comparative study of research article discussion sections of local and international applied linguistic journals. *The Journal of Asia TEFL*, 9(1), 1-29.

Hilmi, A. Z., Toyyibah, & Afifi, N. (2021). A genre analysis on the discussion section of quantitative and qualitative research articles in ELT and linguistics.

Johansen, W. (1997). Review article: Analysing genre: Language use in professional, *Journal of Linguistics*, 19.

Johns, A. M., & Dudley-Evans, T. (1991). English for specific purposes: International in scope, specific in purpose. *TESOL Quarterly*, 25, 297-314.

Juanda, M. R. (2020). *A comparison of rhetorical moves in students' undergraduate thesis Abstract* (Doctoral dissertation, Universitas Pendidikan Indonesia).

Kanoksilapatham, B. (2005). Rhetorical studies of biochemistry research articles. *English for Specific Purposes*, 24, 269-292. http://dx.doi.org/10.1016/j.esp.2004.08.003

Kanoksilapatham, B. (2015). Distinguishing textual features characterizing structural variation in research articles across three engineering sub-discipline corpora. *English for Specific Purposes*, 37, 74-86.

Marashi, H., & Adiban, H. (2017). The effect of using short silent animation on efl learners' writing. *English Review: Journal of English Education*, 5(2), 207-216.

Massoum, Y.H. & Yazdanmehr, E. (2019). A genre-analysis of the discussion section of Iranian and English ELT theses: A comparative study. *Theories and Practice in Language Studies*, 9(12), 1611-1623. http://dx.doi.org/10.17507/tpls.0912.19

Peacock, M. (2002). Communicative moves in the discussion section of research articles. *System*, 30, 479-497.

Rallison, S. P. (2015). What are journals for?. *The Annals of The Royal College of Surgeons of England*, 97(2), 89-91.

Swales, J. M. (1990). *Genre Analysis*. Cambridge: Cambridge University Press.

Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. New York: Cambridge University Press.

Swales, J. M. (2004). *Research genres: Explorations and applications. Cambridge*. UK: Cambridge University Press.

Yang, R., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. *English for Specific Purposes*, 22, 365-385.