

**THE RHETORICAL STYLE OF DISCUSSION SECTION OF RESEARCH
ARTICLES PUBLISHED IN HIGH-IMPACT REPUTABLE JOURNALS BY
INDONESIAN AUTHORS IN DIFFERENT FIELDS**

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ABSTRACT

This thesis aims to describe the rhetorical style of discussion section in 30 research articles (RAs) in six different fields of study, which those were written by Indonesian authors and successfully published in highly reputable journals. The fields comprised social sciences, language, engineering, physics, chemistry, and computer science. The research was designed as a mixed study, both quantitative and qualitative, as well as content analysis. One of the used instruments was a table containing eight textual moves model in the discussion sessions found by Swales. However, analysis focus was limited to Move 1 to Move 6. Data formed numbers and percentages indicating the amount of stages involved in all of the chosen RAs. Data were also in the form of extracts (authors' arguments) which showed the moves applied in their articles. The results exhibited that there was a varied use of rhetorical style on each RAs, but Move 5 was used in all selected RAs (100%) which proved that the discussion section required a profound elaboration of the obtained research results. Besides, there were 27 RAs (90%) involved Move 3 as the second most used move which contained arguments about the research results. The writing patterns were also considered varied. The RAs of language and social sciences owned tendency to address more moves, while physics, chemistry, engineering, and computer science even just applied 2 moves. In accordance

with the results, the use of moves highly depended on certain study fields and features of used data. Different disciplines tended had dissimilar rhetorical structures. The findings proved that the rhetorical style in the content of articles published in high-reputation journals were diverse, so as producing acceptable RAs for being published in high-reputation journals does not necessitate to involve all moves. Nevertheless, Move 5 must be presented in each of RAs to explain the results of research.

Keywords: *Eight Textual Moves, Research Article, Rhetorical Style*

INTRODUCTION

Discussion about journals, it can be started by understanding the term itself. A journal absolutely contains a number of scientific articles assessed as having quality in accordance with certain format. In terms of its definition, journal is defined as a publication that includes several articles in it. Saputra and Budiyanto (2022) defined a journal as a periodic publication consisting of a number of research articles published within a certain period of time. Thus, scientific journal compiles a collection of research articles to be published within a certain limit of time.

The following necessitated term to know is article. It is a product of scientific writing prepared in a particular format. Meadows (1997) stated that an article is a written work including a review or study which prioritizes the author's objectivity and arranged systematically. Based on the definition, objective data are surely needed in article writing. The objectivity of data highly influences the article quality to publish in a reputable journal.

A very popular standard of reputable journal today is Scopus. It is a database barely comprises high quality international journals. Leo (2020) said that Scopus is a source of scientific literature data in the form of reputable journals at the global extent owned and managed by a scientific information company called Elsevier. The company was firstly founded in 1880, but Scopus was introduced in the first time in 2004, precisely on March 15th, 2004. Scopus can be called as the largest abstract and citation database of peer-reviewed literature, such as scientific journals, books, and conference proceedings.

At the national level, it is known as Sinta. It is an abbreviation of Science and Technology Index. Sinta is a scientific portal operated by Indonesian Ministry of Education, Culture, Research and Technology. There is a list of national journals which are nationally accredited. Many qualified scientific journals are indexed in Sinta database. Here, Scopus-indexed journals are automatically put in Sinta database accredited by *Akreditasi Jurnal Nasional (Arjuna)*.

In accordance with the explanation about both terms, the fundamental differences of Scopus and Sinta are presented in the levels of scores and scope of recognition. On the one hand, the Scopus-indexed journal assessment levels have 4 Quartiles, ranging from Quartile 1 (Q1) to Quartile 4 (Q4). Scopus also has a rating system known as Schimago Journal Rank (SJR). The main function of the system is to measure all of research articles in an international journal. Meanwhile, the score of Sinta-indexed journals, for instance, Sinta 1 has a score range between 85 and 100 and 70-85 for Sinta 2 category. It is assumed that Sinta (1-2)-indexed journals are equivalent to journals indexed at Scopus Q3 and Q4. On the other hand, both Scopus and Sinta have differences in the scope of journal recognition. In this case, Scopus-indexed journals are internationally recognized, while Sinta-indexed ones are limited to national standards.

In fact, many research articles by Indonesian authors were published in high-impact reputable journals. They possibly used particular tips of their articles to attract world attention and finally to be published in journals at global extent. One of possible reasons is that they have applied the rhetorical style with English well in writing their research articles.

Therefore, according to the background explained above, the researcher plans to write the thesis entitled “The Rhetorical Style of Discussion Section of Research Articles Published in High-Impact Reputable Journals By Indonesian Authors in Different Fields.” Result of the research is highly expected to become one of principal reference to write high-impact reputable journals. In other words, its existence will be very helpful to make many more Indonesian researchers successful in writing journals indexed Sinta and Scopus.

RESEARCH METHODS

This research applied a mixed approach, both quantitative and qualitative. There is a number of data in the form of numbers and statistics to be described in detail and

abviously in the research. Here, 30 research articles in social science, language, engineering, physics, chemistry, and computer science written by Indonesian authors that those were published in highly reputable journals become the main materials to analyze. Distribution of the selected journals can be seen at Table 1.

Table 1. Distribution of RAs in the Corpus of this Study

No.	Discipline	Code	Number of RA	Percentage
1	Social science	Ssc.	5	16.67
2	Language	Lang.	5	16.67
3	Engineering	Eng.	5	16.67
4	Physics	Phys.	5	16.67
5	Chemistry	Chem.	5	16.67
6	Computer science	Com	5	16.67
Total			30	100

Data forms are rhetorical styles or main communicative units in discussion session of the chosen RAs. There are Table 1, 2, and 3 as the main instruments to collect the data. Table.1 contained eight phase analysis of rhetorical styles proposed by Swales. Table 2 comprised table showing information of the selected RAs. Then, the Table 3 was checklist instrument used to obtain data regarding rhetorical structure, examples of sentences in the research subject, and the location of sentences that indicate rhetorical moves.

FINDINGS

The Differences of Rhetorical Structure in Selected RAs

Results of this research indicated that there were differences in the rhetorical structure of RAs in each discipline. Whole findings were presented in Table 2, as follows:

Table 2. Moves of the Discussion Session

Moves	Journal Fields					
	Ssc.	Lang.	Eng.	Phys.	Chem.	Com.

							Total
Move 1	3	5	2	1	4	4	19
Move 2	2	5	1		3	2	13
Move 3	4	4	4	5	5	5	27
Move 4	3	5		2	1		11
Move 5	5	5	5	5	5	5	30
Move 6	2	3		1	3		9
Total	19	27	12	14	21	16	109

Table 2 above provides clear information about the moves that occurred in the selected RAs of six fields of study. As explained previously, the researcher chosed five articles of each field of study and found a total of 109 moves and did not find M7 and M8. Thus, the study obtained six important moves in RAs writings with high-Scopus and Sinta indexes. The data of moves are presented in each RA in different way. Below is the information displayed in Figure 1:

Figure 1. Moves of the Discussion Session

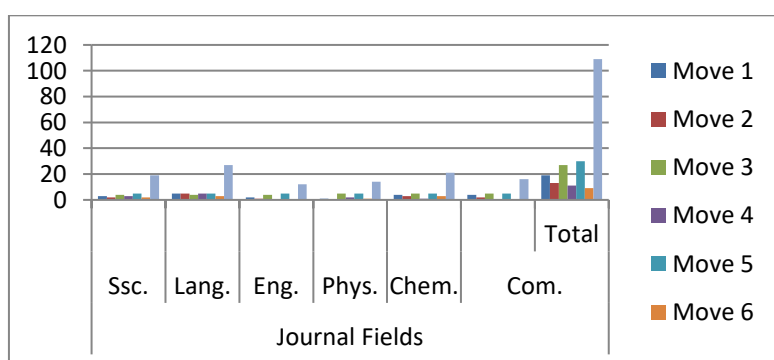


Figure 1 above is used to illustrate data regarding main communicative units in different forms. This is taken to show more convincing movement data for each RAs' writing. The results are also equipped with a more accurate and comprehensive explanation for each selected RA. To recapitulate, the total number or percentage of moves on discussion section in six journals consisting of 30 RAs is presented in Table 3. The results are measured in the range from Move 1 to Move 7.

Table 3. The Number/Percentage of Moves in RA Discussion Section

No.	Number of Moves in the Discussion Section	Number of RA	Percentage
1	7 moves	1	3.3
2	6 moves	1	3.3
3	5 moves	10	33.3
4	4 moves	6	20
5	3 moves	9	30
6	2 moves	3	10
	Total	30	100

Table 3 provides details that the most dominant of discussion section on all RAs are written in 5 moves, composing of 10 RAs (33.3%). Contrastly, there are not any discussion sections which merely have 1 move (0%). In addition, 9 research articles have 3 moves or 30% of the total number of selected RAs. As many as 6 RAs (20%) and 3 RAs (10%) have 4 moves and 2 moves respectively. Only 1 RA (3.3%) has 7 moves in the writing of discussion section. Then, 6 moves on writing of discussion section are shown in 1 RA (3.3%).

Authors' Arguments in Their RA

One of the RAs from the field of language is the only article that has 6 moves in the discussion section, such as RA 1. Therefore, identification of the rhetorical structure of the discussion section is conducted in the RA entitled *Rhetorical patterns of the Indonesian EFL undergraduate students' writings*. It is necessary to sort sentences based on main communicative units as in Extract 1.

Extract 1

[P-1](S-1) The English and Indonesian argumentative essay and letter writings were analyzed in terms of the location of the main idea, the pattern used, and the presence or absence of a summary statement.

[P-1](S-3) For the location of the main idea, patterns, and summary statement, these were .93, .89, and .87 for the English essays, and .82, .88, and .78 for the Indonesian essay.

[P-1](S-4) The results indicate a high positive relationship between raters' scores. ...

[P-3](S-1) (S-2) Research in the rhetorical pattern has emerged since Kaplan (1966) hypothesized that international students from different parts of the globe produce academic writings using a different pattern to students from North America. ...

[P-2](S-1) The locations of the main idea in students' essays were mostly in the 'initial' part of the essay: 50% of students chose the 'initial' location for their English essay, and 60% of them chose this location for their Indonesian essay. ...

[P-3](S-4) Although Asian, including Indonesian, students may also use the circular pattern where the main idea or position taken by the writer in an argumentative essay is not directly mentioned (Kaplan, 1966). ...

Extract 1 informs that Move 1 (background of information) is placed in paragraph 1 [P-1] sentence 1 (S-1). Move 2 (statement of results) is in paragraph 2 [P-2] sentence 3 (S-3). In accordance with the sentences, it is identified that the author presents findings and connects them with research question.

Move 3 (statement of un/expected results) is addressed paragraph 1 [P-1] sentence 4 (S-4) and paragraph 2 [P-2] sentence 4 (S-4) where the author states their positive findings. Afterward, Move 4 (reference to previous research) is stated in paragraph 3 [P-3] sentence 1 (S-1) and sentence 2 (S-2). The sentence indicates that the author completes their arguments with previous research.

Move 5 (explanation) is addressed in paragraph 2 [P-2] sentence 1 (S-1) to sentence 3 (S-3). Move 6 (exemplification) is found in paragraph 3 [P-3] sentence 4 (S-4) and sentence 5 (S-5). These sentences show that the authors complete their arguments by taking examples from experts.

DISCUSSION

Moves in the Discussion Session of Selected Research Articles

The first question in this study is what moves are found in the discussion section of research article of different fields published in high-impact journal in Indonesia. The result shows that the most frequent move found in the data of the study is Move 5.

This is probably because all of obtained research results demand comprehensive elaborations. Those are intended to present logical interpretation of the findings and recommendations for further research (Sutama, 2016). All of authors produced 30 RAs (100%) applied Move 5 to explain their findings in a comprehensive way.

The phenomenon was very common in writing research articles. Most authors completed the discussion section by explaining the research results that have been obtained (Swales, 1990). Completing the discussion section with Move 5 was an attempt by them to convince readers of (un)expected results of the reserach. The description of the research results was definitely delivered logically (Swales in Arsyad, et. al, 2021). Here, move 5 in the discussion section was closely related with the research results argued by the writers on their research article. Move 5 was clearly visible in the preparation of discussion section in an article (Warsito, 2017).

The presence of Move 5 is certainly related to Move 3 which coincidentally became the second most move in the study's results. When 30 RAs (100%) involved Move 5, then Move 3 was involved in 27 articles, or 90% of entire RAs. Based on the results, 13.3% or 4 RAs of each field of social science, language, and engineering completed the discussion section with Move 3.

Meanwhile, 16.6% or 5 RAs of each field of physics, chemistry, and computer science also applied Move 3. The phenomenon was considered quite significant in completing the discussion section of research articles with Move 3. According to research by Wardhana, et. al (2021) showed that 30% of discussion section of RAs written by post-graduate students of Indonesian language education at Bengkulu University involved Move 3 by showing research results.

In addition, based on the number of used moves for each discipline, the research displayed that language and social sciences used more move than four other study fields, such as engineering, physics, chemistry, and computer science. The discussion section of an article actually required more moves, including articles in discipline of

language and social sciences because writing the section was powerful and determined the overall result of an article (Arsyad, 2014). There was 1 article with 6 stages used to complete the discussion section and 3 articles with 5 moves in language. Additionally, 3 RAs of social sciences completed the discussion section with 5 moves.

The Rhetorical Structure of Discussion Section of Selected Research Articles

The rhetorical structure of the discussion section in 30 research articles is not arranged with merely 1 move. This section was structured with at least 2 moves. According to Wardhana, et. al (2021), the discussion section of an article was written by 2, 3, 4, 5, and 6 moves. Common 1 structure found in a number of articles of the study was that Move 1 was located in the first paragraph.

Move 1 and Move 2 were generally addressed in paragraph 1. The case occurred in many RAs in six different fields. The emergences of moves were very sequential and it was rare to find Move 1 preceded by other subsequent moves, for instance Move 2 preceded Move 1 or Move 3 preceded Move 2 and so forth, although the discussion section of the article was structured with all moves. The phenomenon was common in a number of RAs which were used as the research materials, particularly in the discipline of language and social science.

However, there were RAs that did not apply a rhetorical style with a regular pattern. The example was an article in study field of engineering. The discussion section in one of the articles only applied 2 moves which did not start from Move 1, but rather started with Move 3 and immediately involved Move 5. The discussion section begun by showing the (un)expected research results and was immediately elaborated. The moves appeared vary greatly in the RAs of the six disciplines.

The use of varying stages was very reasonable in writing the discussion session of an article (Wahab, 1991). The diversity was very likely affected by the form of used. Language and social science tended to use qualitative data in the forms of words. Meanwhile, numbers or statistics were just used as supporting data (Sugiyono, 2013). For this reason, the discussion section of RAs in language and social science involved many moves.

In contrast, the discussion part of RAs in engineering, physics, chemistry, and computer science had tendency to show raw data in the form of numbers or statistics so

that they can be directly described in a detail way. It became one of the reasons the discussion section in four disciplines just required few moves.

CONCLUSION

The discussion sessions of whole analyzed RAs in this research involved Move 5 comprising logical explanation that aims to convince readers of (un)expected obtained research results. Furthermore, 27 RAs (90%) involved Move 3 as the second most used move which contained arguments about the research results. The writing patterns were also regarded as varied. The RAs of language and social sciences owned tendency to address more moves, while physics, chemistry, engineering, and computer science even just applied 2 moves. In accordance with the results, the use of moves highly depended on certain study fields and features of used data. Different disciplines tended had dissimilar rhetorical structures.

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