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# Rhetorical Structure in Scientific Article Introduction Section Written by Tertiary Students

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Abstract: This pilot research objective is to investigate the rhetorical structure of an introduction section of scientific articles written by tertiary students of social and humanity studies. The research method used is qualitative, which applied purposive sampling in collecting the data. Four journals from Talenta Publisher were selected based on several characteristics, such as socials and humanities discipline, English articles written by undergraduate and post-graduate students, and published in the last two years (2019-2020). The data analysis used an interactive model by applying data collection, condensation, display, and conclusion drawing and verification. The Creating Research Space (CaRS) model used for data analysis is to describe the rhetorical structure of the introduction section in the articles. The results of this research stated that Move 1 Step 2 (making topic generalizations), with a percentage of 31%, is identified as the dominant rhetorical structure. On the other hand, move 2 Step 1c (question-raising) and Move 3 Step 3 (indicating article structure) are not realized in all data. In conclusion, the majority of authors do not follow the standard rhetorical structures of a scientific article. Some of these journals have not applied rhetorical structure, which is an important thing that must be followed, such as Move and Steps, which consists of components: background of the study, research gap, problem statement, and research aim.

**Zein, T.T., Sinar, T.S., Nurlela, & Syahputra, F.P.** Rhetorical Structure in Scientific Article Introduction Section Wrotten by Tertiary Students

**Key words:** rhetorical structure, introduction section, scientific articles, social and humanities, CARS model

Abstrak: Tujuan penelitian percontohan ini adalah untuk menyelidiki struktur retoris dari bagian pengantar artikel ilmiah yang ditulis oleh mahasiswa studi sosial dan kemanusiaan. Metode penelitian yang digunakan adalah kualitatif yang menggunakan purposive sampling dalam pengumpulan datanya. Empat jurnal dari Talenta Publisher dipilih berdasarkan beberapa karakteristik, seperti disiplin sosial dan humaniora, artikel bahasa Inggris, ditulis oleh mahasiswa sarjana dan pascasarjana, dan diterbitkan dalam dua tahun terakhir (2019-2020). Analisis data yang digunakan adalah model interaktif dengan menerapkan pengumpulan data, pemadatan data, penyajian data, serta penarikan kesimpulan dan verifikasi. Model Creating Research Space (CaRS) yang digunakan untuk analisis data adalah untuk mendeskripsikan struktur retoris bagian pendahuluan dalam artikel. Hasil penelitian ini menyatakan bahwa Move 1 Step 2 (membuat generalisasi topik) dengan persentase 31% teridentifikasi sebagai struktur retorika yang dominan. Di sisi lain, langkah 2 Langkah 1c (pengangkatan pertanyaan) dan Langkah 3 Langkah 3 (menunjukkan struktur artikel) tidak direalisasikan di semua data. Kesimpulannya, mayoritas penulis tidak mengikuti struktur retorika standar dari sebuah artikel ilmiah. Beberapa jurnal tersebut belum menerapkan struktur retorika, yang merupakan hal penting yang harus diikuti, seperti Move and Steps yang terdiri dari komponen: latar belakang penelitian, celah penelitian, rumusan masalah, dan tujuan penelitian.

*Kata kunci:* struktur retorika, bagian pendahuluan, artikel ilmiah, sosial dan humaniora, model CARS

#### INTRODUCTION

Scientific article writing (hereinafter referred to as SA) is an academic activity that every academic must carry out. This is in accordance with Surat Edaran Kementerian Pendidikan Tinggi (Ditjen Dikti) dan Kebudayaan (Kemendikbut) Direktorat Jenderal Pendidikan Tinggi (Ditjen Dikti) number 152/E/T/2012 dated on January 27, 2012, regarding publication provisions for students in Bachelor, Master, and Doctoral degree as one of the graduation requirements.

Scientific articles are one of the most current sources of information in academia. Writing an SA requires skills in conveying information in appropriate and easy-to-understand language and does not contain ambiguous meanings hence readers can easily understand what is conveyed. Nevertheless, writing SA is a challenge for students. Although it is widely regarded as the primary source of knowledge, it is a difficult assignment for students-authors and beginner researchers (Rahman et al., 2017; Syahputra et al., 2018; Yadira et al., 2022).

Another thing that must be considered in writing SA is the structure, which is composed of ten sections: title, abstract, keyword, introduction, method, results and discussion, conclusion, acknowledgement, and references (Sismulyasih, 2015, pp. 65-66). One of the sections of a SA structure is the introduction, as it is the first section that readers read after the abstract (Muhtadin, 2017, p. 235). The introduction is also considered the hardest section of an SA (Nguyen & Pramoolsook, 2014). In addition, the SA's introduction section aims to systematically convey SA's communicative goals by providing sufficient information for readers to understand the instrument developed in the scientific article (Sepni, 2016, pp. 43-44). However, the researcher still found the structure uncertainty in various SA introduction sections. It is partly due to a lack of familiarity with and understanding of the rhetorical form of SA in the discipline (Rahman et al., 2017).

According to Swales (1990, p. 141), the introduction section structure consists of three aspects which called Moves; they are; Move 1 (M-1) creates an analytical field (establishing territory), Move 2 (M-2) defines problems in the analysis (establishing niche), and Move 3 (M-3) applies problems (occupying niche). Swales stated this structure as Creating Research Space (CaRS) model as the basis for displaying the general pattern or rhetorical structure in writing the introduction of. The rhetorical structure can also be adapted to teach students-author writing an introduction section on a SA (Rahman et al., 2017). Meanwhile, the rhetorical structure is different from culture to culture (Huda, 2016).

Some research that discusses the rhetorical structure in the SA introduction section has been previously done by Khamkhien (2015), Sepni (2016), Ardiani (2016), Muhtadin and Noermanzah (2017), Afrizon (2018), Arsyad (2020), and Zein (2020). These studies used articles in journals within the medicine, economics, instrumentation, and psychology studies as the data sources. However, from these several previous studies, researchers do not expose research that belongs to Social and Humanity Studies. Social and Humanity researchers/authors also have different ways of expressing their ideas through

written sentences. Hence, it is necessary to conduct research on the introduction section of the Social and Humanity article.

Furthermore, several studies in Humanities and Social Studies Journal/Jurnal Kajian Sosial dan Humaniora (hereinafter referred to as JKSH) published by TALENTA in the Universitas Sumatera Utara (USU) have not applied the standard rhetorical structure in the introduction section. Based on the analysis, the introduction section in JKSH SA has not implemented a rhetorical structure in a sequence. For example, authors do not write research gaps in their SA. The SA written by Alauddin et. Al. (2021) is incomplete according to Swales' CaRS model because it only has M1 and M3, while M2, which contains research gaps, did not appear in the introduction section. Moving on from the description above, there are still some unidentified problems within the introduction section of JKSH USU. Therefore, research to identify the introduction section of JKSH USU is performed to complete the other previous related research. Based on those statements, this research aims to identify the rhetorical structure in the introduction section of USU's JKSH SA.

#### LITERATURE REVIEW

A rhetorical structure is an arrangement linkage of a flow of ideas with a persuasion strategy in scientific articles as discourse instruments (Munandar, 2001, p. 150). The rhetorical structure is related to the non-linear nature of knowledge. However, once it is presented in text form, the writer must be able to present non-linear knowledge (ideas) in a linear form that is easy to understand (Couthard, 1994, p. 7).

A scientific article (SA) is writing that contains a collection of ideas and thoughts from a person or group of people after going through research, observation, study, and evaluation into a written report form following certain systematics, methods, and rules that have been agreed upon. Hence, the contents can be scientifically accounted for and can be verified for further publication in national or even international scientific journals (Jatmiko et al., 2015, pp. 22-23).

#### A. Creating Research Space (CARS) Model

The Creating Research Space (CARS) model, introduced by Swales (1990, p. 141), is one of the most significant formulations for the structure of the introduction to SA and has been widely used by other researchers, including

(Safnil, 2010; Muhtadin, 2017; and Rahman, et. al., 2017). Through this rhetorical structure, Swales (1990, p. 141) introduces that the introduction to SA research journals has three sections called, Moves and each Move has subsections or Step, as can be seen in List:

Step: Step 1 Claiming importance Step 2 Making topic generalizations Step 3 Reviewing items of previous research  Move 2 Establishing a Niche Step: Step 1a Counter-claiming Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings Step 3 Indicating article structure	Move 1	Establishing a Territory
Step 2 Making topic generalizations Step 3 Reviewing items of previous research  Move 2 Establishing a Niche Step: Step 1a Counter-claiming Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step:	
<ul> <li>Step 3 Reviewing items of previous research</li> <li>Move 2 Establishing a Niche</li> <li>Step:</li> <li>Step 1a Counter-claiming</li> <li>Step 1b Indicating a gap</li> <li>Step 1c Question-raising</li> <li>Step 1d Continuing a tradition</li> <li>Move 3 Occupying the Niche</li> <li>Step:</li> <li>Step 1a Outlining purposes</li> <li>Step 1b Announcing present research</li> <li>Step 2 Announcing principal findings</li> </ul>	Step 1	Claiming importance
Move 2 Establishing a Niche Step: Step 1a Counter-claiming Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 2	Making topic generalizations
Step: Step 1a Counter-claiming Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 3	Reviewing items of previous research
Step 1a Counter-claiming Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Move 2	Establishing a Niche
Step 1b Indicating a gap Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step:	
Step 1c Question-raising Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 1a	Counter-claiming
Step 1d Continuing a tradition  Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 1b	Indicating a gap
Move 3 Occupying the Niche Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 1c	Question-raising
Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Step 1d	Continuing a tradition
Step: Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings		
Step 1a Outlining purposes Step 1b Announcing present research Step 2 Announcing principal findings	Move 3	Occupying the Niche
Step 1b Announcing present research Step 2 Announcing principal findings	Step:	
Step 2 Announcing principal findings	Step 1a	Outlining purposes
	Step 1b	Announcing present research
Step 3 Indicating article structure	Step 2	Announcing principal findings
	Step 3	Indicating article structure

According to Swales, the CARS model is fitter to capture various essentials communicative purposes in the introduction to the article, such as stating that the research is crucial, establishing the research in the context, and showing how the gaps are exploited maintained by researchers. The structure or rhetorical pattern of the introduction is divided into two patterns; direct and indirect patterns (Swales, 2004).

The direct pattern occurs when the author directly introduces the research topic or main research issue. This indirect rhetorical pattern is used instead of the author providing background information or information needed for readers to understand the research topic to be proposed (Swales, 2010 p. 158). One of the objectives is to prepare schemata or background for the reader to understand the research topic, and at the same time to avoid misunderstandings from the reader about the topic or research problem proposed.

According to Safnil (2010, p. 158), the structure or rhetorical pattern of the introduction in Bahasa is not identical to English. In this direct pattern, Indonesian writers often use two forms of rhetoric: conveying research topics or presenting a research problem. The rhetorical structure in the introduction to SA is inseparable from the use of language that shows the characteristics of an SA instrument. This can be seen in the review of previous studies showing that SA writers use different types of verbs (for example, reporting verbs such as "show" or "claim"), and verbs (past, present perfect, or present) varying across disciplines. They also use common nouns that refer to products (research, report, experiment or procedure, and mental verbs). The features of the instrument used as mentioned before are characterized as reviewing previous studies.

#### **METHOD**

This study applies a descriptive qualitative approach to explore and reveal the rhetorical structure in the introduction to USU's JKSH SA. The data obtained were then analyzed using the CARS model pioneered by Swales.

#### A. Data and Source of Data

The research data are clauses in the introduction section of USU JKSH SA. The source of data is published JKSH by TALENTA USU through https://talenta.usu.ac.id/. The following table is the list of USU JKSH.

Table 1: The lists of Jurnal Kajian Sosial dan Humaniora USU (JKSH USU)

No	Name	Department/Faculty	Link		
1.	Intellectual Property Rights Review	Faculty of Law, USU	https://talenta.usu.ac.id /iprreview		
2.	Indonesian Journal of Medical Anthropology	Anthropology Lab. USU	https://talenta.usu.ac.id /ijma		
3.	LingPoet: Journal of Linguistics and Literary Research	English Lit., USU	https://talenta.usu.ac.id /lingpoet		

4.	International Journal of Culture and Art Studies (IJCAS)	Faculty of Cultural Sciences, USU	https://talenta.usu.ac.id /ijcas
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#### B. Data Collecting Method

The method used in data collection is a documentation study by collecting all JKSH published by TALENTA USU downloaded from https://talenta.usu.ac.id/. Four journals are chosen which focused on social humanities studies. Furthermore, the researchers coded the four journals, for example, the Journal of Intellectual Property Rights Review into JIPRR. After the journals were collected, the researcher selected two articles (article number one and two) from the latest volumes published in the last two years within the four journals. The next step is to focus on the introduction of each SA and sort the data by clauses.

#### C. Data Analysis

In the data analysis stage, the researcher collects data and then analyzes the data by applying the Interactive Model (Miles et al., 2014: 31); data condensation, data display, and conclusion drawing and verification. Data condensation refers to the process of selecting, focusing, simplifying, abstracting, and transforming data, as described in the following framework.

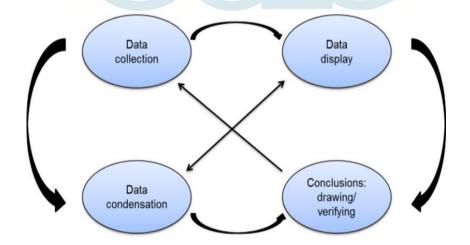


Figure 2: Interactive Data Analysis Model (Miles, Huberman, and Saldana, 2014, p. 33)

#### 1. Selecting

Through this stage, the data in the form of clauses are selected according to the instrument of the problem; the rhetorical structure in the introduction to USU's JKSH SA.

#### 2. Focusing

Next, the researcher focuses on analyzing the rhetorical structure of the introduction to the four JKSH USU SA based on the CaRS model by Swales. The data is categorized by Move (M), namely M1, M2, M3, and the Step (S).

#### 3. Abstracting

Furthermore, the collected data is evaluated, especially with regard to the quality and adequacy of the data. If the data showing the rhetorical structure in the introduction to the JKSH USU SA are considered good and the amount of data is sufficient, then the data is used to answer the problems of the rhetorical structure.

#### 4. Simplifying and Transforming

The data in this study are further simplified and transformed through rigorous selection and brief descriptions, classified in a broader pattern, and so on. To simplify the data, the researchers coded four journals based on the name of the journal. Likewise, the elements of rhetorical structures, such as the abbreviations S (Steps) and M (Move) 1-3. After that, the researcher presents the data in the form of a brief description and a table that describes the results of the analysis of the rhetorical structure in the introduction to the JKSH USU SA. The presentation of data in tables is designed to combine information that is arranged in a coherent and easily accessible form. The last step is to conclude or verify the data according to the problems. The research results are described and then concluded in general terms. The following systematic research implementation is described in the research flow chart.

#### RESULTS AND DISCUSSIONS

The rhetorical structure analysis results of eight SA introduction section showed that the rhetorical structure of eight introductions fulfils almost all M1,

M2, and M3 elements, namely making the field of analysis, defining problems in the analysis and applying the problem. However, two Step does not meet the Move elements, for example, M2 S1c (question raising) and M3 S3 (indicating article structure) did not appear in the introduction of the eight SA.

#### A. All Move and Step Realization

The following is each Move and Step representative taken from all data, presented in Table 1.

Table 1: Move and Step in Representation in All Data

Move and Step	Clause / Sentence
M1S1	"The description above is a positive impact of the development of the digital world. While the negative impact is that many YouTubers use other people's work as material to create content on YouTube."
M1S2	"Portrait copyright is one of the rights protected along with other works protected under Law No. 28 of 2014 concerning Copyright. The portrait itself is actually a photoraphic work whose object is human."
M183	"The stages that exist throughout human life are such as ind infants, weaning period, childhood, adolescence, puberty, post-marriage, old age and so on (Koentjaraningrat, 1982)."
M2S1a	"Hal will have a bad effect on the couple because psychologically and bilogistally, because young married couples are considered immature to be able to conceive, give birth and then are not ready to face household problems (Rifiani, 2011; Minarti, 2014). According to Mufidah (Sumbullah & Jannah, 2012), the ideal age of fertilization in female reproductive organs is at least 21 years old."
M2S1b	"This raises its own legal problems, because the use of other people's work becomes YouTube content, it could be that the work made into that content contains copyright."
M2S1c	~Did not appear in all SA~

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M2S1d	"Therefore, third parties who will use or exploit for commercial purposes must obtain permission from the right holder. Unlike if the one who uses it is the owner himself."
M3S1a	"By using the normative legal research method by tracing the positive legal norms that apply in Indonesia, this study attempts to provide answers to the problems posed."
M3S1b	"The SPSS version 17 software was used for analysis and the ANOVA univariate test was applied to test the significance value."
M3S2	"In this study, the researcher claimed that semiotic analysis helps solve the issues of illustration."
M3S3	~ Did not appear in all SA~

Move 1 stated as establishing a territory or the situation is generally achieved in two ways: showing that a general area of research is important, interesting, problematic, relevant, or otherwise worth investigating. It also introduces and reviews key sources of previous research in the area to show where they are if there is a gap or if previous research is insufficient to solve the problem of the research. M1S1 is indicated by claiming importance of. It portrayed by writing action of describing the research problem and providing evidence to support why the topic is important to study. It can be marked by the clause; 'The description above is a positive impact...' as stated in Table 1.

M1S2 is indicated by making topic generalizations. It portrayed by writing action of providing statements about the current state of knowledge, consensus, practice or description of phenomena. It can be marked by the clause; 'Portrait copyright is one of...' as stated in Table 1. M1S3 is indicated by reviewing items of previous research. It portrayed by writing action of synthesize prior research that further supports the need to study the research problem. It can be marked by the clause that is a citation as stated in Table 1.

In addition, Move 2 consists of one step but with four different stages, stated as a, b, c, and d. Move 2 is stated as establishing a niche or the problem. This action makes a clear and valid argument that your particular study is important and valuable. This can be done by pointing out specific loopholes in previous studies, by questioning generally accepted assumptions, by raising questions, hypotheses, or even in some ways prior knowledge. M2S1a is indicated by counter-claiming, or introducing an opposing viewpoint or

perspective or identifying a gap in prior research that you believe has weakened or undermined the prevailing argument. It can be marked by the clause; 'According to ...' as stated in Table 1. M2S1b is indicated by indicating a gap. It can be portrayed by writing the development of the research problem around a gap or understudied area of the literature. It can be marked by the clause; 'this raises its own legal problems ...' as stated in Table 1. M2S1c is indicated by question-raising or writing similar to gap identification, this involves presenting key questions about the consequences of gaps in prior research that will be addressed by your study. In all data, M2S1c is not identified, its mean that all the authors did not mention their research gaps to raise their research questions, before mentioning their research questions. M2S1d is indicated by continuing a tradition. It portrayed by extending prior research to expand upon or clarify a research problem. This is often signaled with logical connecting terminology, such as, "hence," "therefore," "consequently," "thus" or language that indicates a need.

Meanwhile Move 3 is to announce the means by which your study will contribute new knowledge or new understanding in contrast to prior research on the topic. This is also where you describe the remaining organizational structure of the paper. M3S1a is indicated by outlining purposes. It portrayed by answering the "so what?" question. It can be marked by the clause; 'By using the normative legal research method...' as stated in Table 1. M3s1b is indicated by announcing present research. It portraved by describing the purpose of your study in terms of what the research is going to do or accomplish. It can be marked by the clause; 'The SPSS version 17 software was used for analysis ...' as stated in Table 1. M3S2 is indicated by announcing principal findings. It is portrayed by presenting a brief, general summary of key findings written, such as, "The findings indicate a need for...," or "The research suggests four approaches to....". The last, M3S3 is indicated by indicating article structure. It portrayed by stating how the remainder of your paper is organized. In all data, M3S3 is not identified, its mean that all the authors did not mention how the such as; literature review, method, and analysis will be presented.

#### B. Overall Data Analysis

The following is a recapitulation of the rhetorical structure in the introduction to JKSH SA which can be seen in Table 2. Based on Table 2, Move 1 Step 2 (M1 S2) has the highest percentage Move and Step in eight SA. M1 S2 is stated as 'Making topic generalizations' realize by providing statements about the current state of knowledge, consensus, practice or description of phenomena. In all SA, M1 S2 appears in more than (or at least) one sentence.

Students-author in this condition tend to state the topic of their research generally. For example; 'The term illustrated novel refers to an extended narrative with multiple images that, together with the text, produce meaning.' They often stated general information more and ignored another element, which resulted in the missing of other move. The authors feel that their introduction already full due to many general information and satisfied with it. This phenomena is also mentioned in other several researches (Huda, 2016; and Kheryadi, 2017), Move 1 also stated as the most recently used move in the data they analyzed.

Table 2: The total of Move and Step in all articles

	Rhetorical Structure										
Text	M1			M2			M3				
	S1	S2	S3	S1A	S1B	S1C	S1D	S1A	S1B	S2	S3
1.	2	3	2	_	1		1	-	,		,
2.	1	2	1	-			1	1			
3.	2	6	7	1	1	-	-	-	-		
4.	1	5	4	-	1	-	2	-	-		,
5.	2	1	1			7	4	2	4	1	,
6.	2	3	2					1	1		,
7.	-	2	1	-	-		-	-	,		,
8.	1	1	2	,	1	,	,	1	,	1	,
Total Sentences	11	23	20	1	3	0	4	5	5	2	0
Percentage	15%	31%	27%	1%	4%	0	5%	7%	7%	3%	0

The second most frequently Move and Step appear in all data is M1S3 which is reviewing items of previous research. Students-author tend to cite previous research related to their study. This Move and Step is spotted frequently appear in the first sentence of the Introduction. For example; 'Novel is the modern or living form of narrative fiction. It shares the construction of feature, themes, subject matter of epic, romance, allegory and satire (Martha 2016: 7).' This statement is appeared in the first sentence of the Introduction. Students-author especially found in our data is tend to start the Introduction section by citating

from other statement. They seem not confident to present their own perspective within the subject discusses as the first sentence.

This resulted as the disintegration within Move and Step according to Swales. Even though they mention all the Move and Step proposed by Swales, but eventually the organization is jumbled. This also mention by (Rahman et al., 2017), they discovered that certain ways proposed by students-author in creating Move 1. Some steps are varied in formation, some start in M1S2, some others from M1S1. Rahman et. Al., (2017) argued that this is due the style adopted by the author which is deductive style of reasoning whilst in this research highlighted the habit of students-author to start their introduction by quoting the general statement.

On the other hand, Move 2 Step 1c (M2S1c) and Move 3 Step 3 (M3S3) have zero percentage, which mean these moves and steps did not appear in all data. M2 S1c is stated as 'question raising', this means that all the authors did not raise how the research questions were formed. Students-author mention their research purposes in M3S1a but how it constructs (as appear in M2S1c) is not mentioned. This resulted as a premature introduction which leads to a confusion by the reader. Even, some authors are also identified failed to present their research gaps (Huda, 2017). Reader especially scientific article reader need to identify how other researcher construct their research purposes in other to cite or find research gap, and they will find it through question-raising.

In addition, M3S3 which stated as 'indicating article structure' is also resulted with zero percentage. This M3S3 is realize by mentioning other section briefly in the end of the Introduction section. No students-author write a sentence refers to the other section in their article. Students-author have to write this, because as the first section in the article structures, M3S3 is important to present simple description of the others section within their article organization. In fact, several authors think that this M3S3 is an optional move (Kheryadi, 2017).

#### C. CARS Model Implementation in Teaching Scientific Article Writing

Based on the data analysis and the discussion of the research results, lecturers can focus on Move and Step that resulted in a small percentage point. These Move and Steps are; M2S1a as counter-claiming, M3S2 as announcing principal findings, M2S1b as indicating gap, M2S1d as continuing tradition, M2S1c as question raising, and M3S3 as indicating scientific article structure. Lecturers can show the example of an Introduction with well organize and complete Move and Step proposed by Swales. Kheryadi (2017) also mentioned

that teaching various Moves and Steps will provide students-author with better introduction writing. They also can show the example of Move and Step that rarely mention in the Introduction. In M2S1a, lecturer can ask students to refers to previous research claim and relate to her/his topic, aim for the gap between those researches and present the statement which empower your scientific article. For example, this article entitle; 'Early Marriage Ethnographic Study in North Securai Village Babalan District Langkat Regency'. The author stated some previous research statement as; 'According to Mufidah (Sumbullah & Jannah, 2012), the ideal age of fertilization in female reproductive organs is at least 21 years old.' Author can counter claim it by stating the problem happened related to her/his topic that even though the ideal age for marriage is 21 years old, in some district underage marriage is still happened and it is normal. By presenting the example students can copy it and later perform the exact writing style to their introduction section article.

For M3S2, lecturer can ask students to think what theory, approach, or method will they used to accomplished research findings. Then, mention how it works in the introduction, for example; 'four x test was given to the learners which included some initiation questions, followed by questions related to instrumental motivation, integrative motivation and qualitative analysis.' This sentence indicates how the author extract the finding within his/her research and proclaimed that the finding will contribute to the problems raised. Lecturer can propose several problems then ask students to think how to solve those problems by announcing principal findings. Meanwhile, M2S1b and M2s1d also stated as Move which rarely used by the students. Some of them did not mention the research gap and also continuing/relating his/her research to the previous research. Lecturer can train students by reading a lot of similar or related article and proposed what area that can they discuss while relating to the previous research. Hence, the research tradition is still intertwined.

Finally, lecturer have to ask the students-author to write how they come up with the research problems (question-raising) and brief description of their scientific article organization (indicating scientific article structure). These Moves need a lot more attention because it resulted as zero percentage within all data. For example, for M2S1c (question-raising), it can be expanded from the research gap (M2S1b). When student already stated their research gap, prior to the previous research, he/she can elaborate the issues in the next sentences. As in "Despite prior observations of student behavior in bystander social experiment, it remains unclear why do certain student choose to help one sample to the other." There is still a gap on certain research results, you have to highlight it and raise your question on specific issues which later you will discuss. Meanwhile, for M3S3

(indicating article structure) is related to style and lecturer can remind or inform their students-author to briefly descript their article organization at the end of the introduction section. At the end of the day, lecturer can provide students-author to various scientific articles. These scientific articles can be written by English native authors and non-native English authors (Nguyen & Pramoolsook, 2014).

#### CONCLUSION AND SUGGESTION

#### A. Conclusion

Based on data analysis, it concluded that the majority of authors do not follow the standard rhetorical structures of a scientific article. Some of these journals have not applied rhetorical structure, which is an important thing that must be followed, such as Move and Steps which consists of components: background of the study, research gap, problem statement, and research aim. The results of this research stated that Move 1 Step 2 (making topic generalizations) with a percentage of 31% is identified as the dominant rhetorical structure. On the other hand, move 2 Step 1c (question-raising) and Move 3 Step 3 (indicating article structure) are not realized in all data. There is no single article that provide complete Move and Step proposed by Swales. Besides, the organization of every move is also not accordingly. You can find M1S2 in the first sentence of the first paragraph.

#### B. Suggestion

Through the finding discussion, we proposed students especially who will attend 'scientific article writing' class to be introduced to the CaRS model. Therefore, they will implement the rhetorical structure in the introduction section. For further research, we expected to continue this pilot research to the next stage. The further research will cover the style of writing introduction by EFL students. This issue derives from the unorganized Move and Step such as; M1S2 as the first sentence of the first paragraph, and other accordingly Move and Step.

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