Analytical Appeals of Move Structures in Systematically Organising and Communicating Research Ideas

Hairul Azhar Mohamad[1], Nadiah Hanim Abdul Wahab[2], Pavithran Ravinthra Nath[3], Rasyiqah Batrisya Md Zolkapli[4], Muhammad Luthfi Mohaini[5], Muhammad Haziq Abd Rashid[6], Ahmad Aminuddin Soopar[7], Arifuddin Abdullah[8], Muhammad Hafidzudeen Norazizan[9]

[1,2,3,5,6,7,9]Akademi Pengajian Bahasa, Unversiti Teknologi MARA, Shah Alam, Malaysia, [4]Akademi Pengajian Bahasa, Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, Dengkil 43800, Selangor, Malaysia, [8]Faculty of Language Studies & Human Development, Universiti Malaysia Kelantan, Malaysia
Corresponding Author Email: hairazhar@uitm.edu.my

Abstract
This study sought to examine the use of a specific type of rhetorical move structure known as the ILMC (Introduction - Literature - Method - Conclusion) organisational model in writing academic research abstract compositions (RACs). A linear structure of writing development commonly associated with native English writers would aid in creating the logical appeal of the academic research composition. This was substantiated by the theoretical concept of Aristotelian Rhetoric to underscore the significance of rhetorical appeal in the form of logos or logical domain shown by the academic research writers. The research design was content analysis in which 480 RACs were employed based on the criterion method of sampling from eighty-eight indexed journals both from Malaysia and International research open-access journal repositories. A qualitative software of NVivo12 was used by the present researcher in manually analysing the employment of the ILMC move structures and its sub-types. The major findings revealed that writers of English as a second language (WESL) from Malaysia employed the sequential form of ILMC move structure, being the standard characteristic of the Anglo-European style of straightforward writing development in expanding the main points of a topic under examination. However, they had difficulties in ascertaining that all parts of the ILMC move structure were retained as they showed more missing moves dedicated to Literature and Methodology sections than the English writers from the UK, US, and Australia utilised these moves for the same sections. It was concluded that Malaysian ESL writers showed the importance of showing the standard linear writing structure commonly used by

the international writers but did not yet master the rhetorical functions of the component parts at the discourse level. Future research can be directed to explore the cultural and non-cultural contributions behind such rhetorical patterns of academic writing development.
Keywords: Linear Form of Writing, ILMC Move Structures, Intercultural Rhetoric, Aristotelian *Logos*

Introduction
The rhetoric of academic research writing is imbued with many rhetorical and linguistic features. Mohamad et al (2022) identified these features to be prevalent at the various levels of operational compositions, such as the lexical, phrasal, sentential, and organisational or discourse levels. A logically arranged presentation of research ideas at the genre-based discourse level reflects a writer's mental structure and thought process in transferring the information of their research points in a well-thought-out and analytically systematised form. It aids in ascertaining that the relevant major points are orderly developed and thoroughly covered (Mohamad, 2022). If an expansion and elaboration of main ideas of the content of research are not clearly guided by a well-recognised structure, the production of the written research work will not be efficiently shown, thus compromising the readers' directional understanding of the research.

Linear Patterns of Writing Structure
There are two forms of information organisation which are referred to as the linear and nonlinear patterns of writing structure. Academic writing is a well-known genre-based approach of information manifestation which employs the linear layout of idea development. According to Aristotle and Kennedy (1991) as cited in Mohamad (2022), academic research writing is a form of research story narration in a highly systematic form. Academic research paper sections were methodically presented with the general academic layout structure - introduction, body, and conclusion. The body comprises more sections on the details section of the literature support, the method section of conducting the research, the section for reporting of the results, discussion, and conclusion to ensure that all relevant and valuable information is included objectively. This is referred to by Swales (1990) as the rhetorical move structure of academic research papers in which each section of move structure is constructed to contain certain types of information based on their functions and rhetorical purposes. Most of the information presented in the opening section of a research paper, if repeated, is not thoroughly discussed in the other sections to avoid overlapping in-depth presentation of the points. The same conception in terms of the focus of the dedicated sections is applicable to other sections. If the same main ideas continuously resurface at the same degree of elaboration throughout the other sections, the attention on the readers' anticipated structure in their train of thought is repetitively disrupted due to the imminent circulatory and overemphasis of recurring main information, eventually suggesting the absence of overall linearity structure of their research write-up. As proposed by Kaplan et al., (1994), the most anticipated structure refers to the orderly section-oriented organisation of Introduction, Literature, Method, Result, and Conclusion or briefly known as the ILMC structure. In many other cases, it was shortened to be ILMC structure as many conclusion sections in numerous research papers contain the result section as well. This structure is regularly used by many researchers as standardised by many journal publications to be the customary organisational format in systematically organising the summary write-up of the research abstract which simultaneously reflects the general structure of the entire research paper.

However, writers of the English as a second language (WESL) would most likely show difficulties in composing their academic texts in a fixed and systematic layout of common move structure (Pham & Bui, 2022). As substantiated by Kaplan (1966); Connor (1996) in their studies of the nonlinearity of non-native English writers' development of information structure, non-native English writers were easily subjugated by their first language writing and development structure despite the awareness of their deviational structure from the writers of English as a standard native language (WESNL) background. Thus, it renders their written work to be naturally less informative and appealing than the ones produced by the educated native English writers.

Problem Statement

According to the Aristotelian structure of persuasive informative discourse, one of the features to be considered by rhetorical language users in shaping their discourse is the use of commonly effective structure manifested at the textual level. It is the arrangement of textual organisation in a well-thought-out form to appeal to the academic audience (Aristotle & Kennedy, 1991). However, the textual arrangement of the ideas based on the most common layout are a standard exposure to the student academic writers formally at the university level. However, writers of English as a second language (ESL) or English as a foreign language (EFL) would often be affected by the development structure of their first language embedded in their cognitive system and thought process before they were introduced formally with the development of common writing structure employed by native English writers. Kaplan et al., (1994) substantiated this argument by discovering that the Asian writers would write their academic compositions in a circular form compared to the Anglo-European writers who would present their academic written work in a straightforward linear structure. Most academic textbooks would generally show the standard organisational layout of writing used by native English writers as a universal form of reference (Casner-Lotto & Barrington, 2006; Pastor & Calderón, 2015). The deviational forms of development from the universally known layout pattern of textual development were observed in many types of academic texts such as review papers, expository essays, and summative reports, as well as research application letters and emails. This was shown based on the studies of academic texts by Kaplan (1966), and Chang and Hsu (1998), the element of indecisiveness and absence of focus was highly visible in the writing of Asian ESL writers in which they would elaborate the details of the main ideas in a circumlocutory way before highlighting the gist of their elaboration. In contrast, American writers of English as a native language would prefer to highlight the main points at the very beginning before proceeding to expand them from there onwards with more specific details and evidence in their academic essays and texts.

Despite the above concerns, it was not rigorously shown if such deviational patterns were similarly demonstrated in the writing of genre-specific discourse, especially the specific sections of the research articles. The general layout of the main headings reflecting the use of ILMC layout points were holistically presented in the overall presentation of research articles. In the case of summary section through abstract writing, such a systematic pattern of development layout was often missed out from the overall frame of arrangement structure. This was probably due to the compositional act of summarising the research work performed at the last stage of the research writing process without due and fair degree of academic concern when it should have been the most critical section to be given the most attention and consideration in terms of the organisational move structure. It would be used as the main window firstly presented to invite the readership into an entire article which was

underscored by Connor (1996) and Mohamad et al. (2022) that major variations of the commonly known structure with disorganised or missing parts, would most likely compromise the interest of the readers to give their time and commitment to read the full papers.

Research Objectives and Questions
Following the above problem, the present research sought to
● investigate the applications of rhetorical move structure of Introduction-Literature-Method-Conclusion (ILMC) in the academic research abstracts composed by writers of English as a second language (WESL) background and writers of English as a standard native English language (WESNL) background.
● explore the contextual occurrences of ILMC in the selected sample research abstracts as well show the details in terms of its common rhetorical usage.

To achieve the above objectives, three research questions have been formulated as follows:
I.   Do the WESL and WESNL groups show significant differences in the frequencies of employing the sequential and non-sequential ILMC move structures in their research abstracts?
II. Do the WESL and WESNL groups show significant differences in the frequencies of subtypes of sequential and non-sequential ILMC structures (i.e., the complete and missing subtypes) in their research abstracts?
III. What are the most frequently missing moves (I, L, M, or C) in both sequential and non-sequential ILMC structures and their contextual instances?

Significance of the Study
This study is useful in identifying the rhetorical patterns used by ESL writers from Malaysia and native English writers from the USA, UK, and Australia by showing their similar and different analytical styles of systematically organising the content of their research ideas in the compositions of their research abstracts. Through comparative analysis, ESL writers would be able to see the marked or unmarked extent of their deviations from the native English writers. However, it is optional for them to continue writing with their present style to demonstrate their cultural way of writing or to approximate the style shown by native English writers to cater to the international context and audience.

Literature Review
Based on theory of discourse types and genres, Swales (1990) introduced the concept of move structures in arranging the research ideas in a research article. In view of its rhetorical function in logically organising the researcher's work at the textual level of treatment which can also be used to appeal to the logical mind of the readers as suggested by Aristotle and Kennedy (1991), it was then referred to as the rhetorical move structures of textual organisation in the present study.

Rhetorical Move Structures of Academic Research Discourse Compositions
Rhetorical move structure is a methodical structure of identifying and treating the rhetorical parts or steps (moves) in the execution and writing of academic research. It is one of the many rhetorical features used in composing an appealing academic research text at the textual level through organisational move structures (Mohamad, Mohaini, Zolkapli, Nath, Wahab, Soopar, Rashid, Abdullah & Pilus, 2023), apart from those rhetorical features examined at other

various levels of compositions (Mohamad, 2022; Pham & Bui, 2022), discoursal and lexical level (Mohamad et al., 2022), and lexical and sentential levels of academic research texts (Mohamad et al., 2023).

In the area of contrastive rhetoric, rhetorical move structures are examined from various purviews which include the comparative analysis of this tool between two or more groups of language users in the spoken and written contexts. Contrastive rhetoric is a sub-branch of the broad contrastive analysis theoretical paradigm in which the focus of the former was proposed by Connor (1996) to be the new linguistic model in comprehensively examining the various elements of language tools in the rhetoric of written and academic discourse commonly demonstrated by numerous groups of writers to appeal to the specific target audience. One of the sub-areas of contrastive rhetoric is genre-based discourse analysis in which the construct of culture was re-expanded to include 'smaller cultures', herein referring to smaller groups of rhetorical language users in any specific academic or business settings based on their special communicative purposes. In business settings, the use of emails with its standard structure and language use was studied to explore the best and most effective lexical items used in the three-part layout plan of opening, body, and conclusion to be used by business email writers, making them one of cultures in the smaller group (Marquez, 2016; Mohamad et al., 2020). To determine the role of persuasion in this genre-based discourse, it was highlighted that there were distinctive patterns of cultural rhetoric, textual registers, and persuasive elements of language used by this cultural group of business writers. Asian and American email writers showed their rhetorical features and language registers as their persuasive elements in their email discourse (Marquez, 2016). It was also found in a study of research abstracts in the field of linguistics by Mohamad et al (2023) that unlike the native English writers, Malaysian ESL writers would prefer the persuasive elements of emotive phrases at the lexico-phrasal level and passive voice at the sentential level in persuading their target audience. The same finding was discovered in another study of emotive phrases used in the move structures used to rhetorically organise the content of research work in research abstracts (Mohamad et al., 2023).

In the academic settings, one of the smaller cultural groups is the academic research writers in which their use of spoken and written language has unique communicative purposes that should only be understood by their community in their own areas of expertise. Based on the studies of genre analysis by Bhatia (1993), this community has their standard step-by-step ways of relaying their research message to their community readers. According to the concept of genre analysis of move structure model adapted from Bhatia (1993), the successive method of effective writing includes several consecutive steps which are to establish the specific purpose of the text, make an interesting offer to the audience, attach important support or evidence, solicit possible action to create interaction with the audience, use the persuasive tactics, and end the written text with an impactful message. In the case of academic research writing, the genre move structure proposed by Kaplan et al (1994) suggested the use of the orderly section-oriented organisation of the ILMC structure - Introduction, Literature, Method, Result, and Conclusion. The rhetorical aim was to have a standard layout organisational model in the writing of academic research texts at the discourse level.

Organisational Parts of Textual Treatment through ILMC Move Structures
Based on the concepts of textual structure and superstructure under the theory of text linguistics (De Beaugrande & Dressler, 1981) and the writing models on academic research writing under the theory of discourse types and genres (Swales, 1990), the discourse act of

arranging various parts of textual treatment involves the textual styles in terms of the organisational development structure of ideas in any written type of academic research discourse. It was built upon the Aristotelian third element of rhetoric - the arrangement of the various parts of treatments to appeal to the target audience (Aristotle & Kennedy, 1991) from which Connor (1996) expanded by looking into the common differences of rhetorical features at all compositional levels between two or more groups of language users in developing their discourse at the textual level. This third element covering the broad perspective of looking a discourse can be attained through the employment of Intro - Literature - Method - Result / Conclusion or ILMC organisational move structure suggested by Kaplan, et al (1994) in helping the writers express their thoughts and main ideas of an academic text in an orderly standard structure.

According to Aristotelian rhetoric, the appropriate treatment of overall discourse in terms of organising its various parts can be one of the persuasive ways to ensure the persuasion aim of the text can be manifested based on the universally accepted standardised outline of the community writers, thus fulfilling the Aristotelian appeal of *logos* or logical domain. This element makes the formal feature of the text which was correlated with the rhetorical logical appeal of the writers (Mohamad, 2022). The ILMC or ILMRC structure is also known to reflect the standard formal structure of research texts as it is based on the essential elements of highly systematic, technical, and well-formed presentation of research content organisation. As shown by Kaplan et al. (1994) on the idea of ILMC structure, it was examined in the writing of research abstracts that could be rhetorically employed to present the content in the sequential order of major four-point plan which involves the consecutive acts of introducing the topic and purpose of the research, supporting it with numerous evidence of literature, rolling out the methodological plan of executing the research, and finally reporting the findings of the research.

The above said method was found to be nearly the same layout structure as other models of move structures examined by other researchers. In a macrostructural analysis of 132 research abstract of empirical research related to management executed by Harati and Mobashshernia (2019), they found that the most common structures used by academic writers to organise their research ideas systematically were, firstly, the Introduction - Method - Result - Discussion (IMRD), Introduction - Literature Method - Result - Discussion (ILMRD) and, secondly, Introduction - Literature - Method - Result - Conclusion (ILMRC). These two move structures were the most employed layout model used to treat the textual discourse of academic research abstracts. In addition, the literature (L) move was the most common section/ sub-section presented by the writers compared to other moves, thus signifying that this move is the most indispensable move to be included in ascertaining and maintaining the formal technical structure of the academic research abstracts. In contradiction with the Swales (1993) proposed structure which would ways contain sub-structures (sub-level moves), it was discovered that such patterns were not demonstrated in the composition of research abstracts. It can be concluded from Kaplan et al. (1994) and Harati and Mobashshernia (2019) that the ILMRC move structure would be the most frequent presentation layout to be employed by academic writers of technical empirical fields of research. According to another study on 137 research abstracts from VNU Journal of Foreign Studies in Vietnam done by Loan (2022), it was found that ESL writers from Vietnam did not follow the fixed 5-step move structure (e.g., Introduction, Purpose, Method, Product, and Conclusion) proposed by Hyland (2000) in writing research abstracts. Their development structure was optionally shown and randomised which would have made their research write-

up to be less logically appealing to the native writers' analytical perspective of a universally accepted genre-based rhetorical discourse. In terms of the most frequent move step, the finding supplemented the finding shown by Harati and Mobashshernia (2019) in which the most frequent move employed by these writers was the Product or Result related move. Based on the integrated findings of both studies, it can be concluded that Literature and Result moves should be the most employed move to be compulsorily included in the writing of research abstracts.

Methodology
In this section, detailed information on the research design, sampling method, instrumentation for data collection as well as data analysis is presented. Discussion of the internal consistency reliability test is also included to indicate that the data analysis process was systematically executed based on the standard level of scientific methodology to increase the validity and applicability of the research findings.

Research Design and Sampling
This study employed content analysis research design through the quantification of qualitative data. Four hundred and eighty (480) research abstract compositions (RACs) of 88 indexed national and international journals were sampled based on the criterion method of sampling from two groups - writers of English as a second language (WESL) from Malaysia and writers of English as a standard native language (WESNL) from the UK, USA, and Australia proportionally based on criterion method of sampling. Another sampling criteria was the topics of the research abstracts which must be on English language, linguistics, and English proficiency. The independent variable was the two groups of writers - WESL versus WESNL, in terms of their distinctive use of the ILMC structures. Different groups of writers from different cultures were expected to show differences in their use of various linguistic items at numerous levels of composition. The dependent variable of the study was the employment of the sequential and non-sequential ILMC move structure and their subtypes (i.e., complete and missing). The frequencies of use of these discourse-level rhetorical items would be determined based on their different cultural groups (the independent variable).

Data Collection and Data Analysis
The data of all 480 research abstracts were collected one by one from and saved into excel file as the main list which contains their label from no. 1 to no. 240 for both groups of the WESL and WESNL. Other details such as the titles, the names of journals, and the authors were also saved in the different columns of the excel file for future reference. For the column with the word-by-word content of the research abstracts, it was transported into word files individually, making a total of 480 separate word files of research abstracts, labelled as the WESL and WESNL. This constituted the data collection process of the research for the files to be imported into a data analysis tool for further qualitative content analysis of the data.

Qualitative content analysis was used in this research as it was one of the common methods to examine frequency counts used in social science and humanities research, especially language related topics. According to Franzosi (2010), the quantification analysis of the qualitative content could be done by conducting the manual process of codifications to the segments or parts of lexical information and every coded part or segment would be counted as one count of occurrence. Each occurrence according to the specific themes or sub-themes under examination would then be added up to have the total number of occurrences. NVivo12 qualitative software was adopted for the research coders to perform this analysis of

all 480 research abstracts. It contained many useful features to create parent and child codes so that it would be easier to tag the identified parts into different cases, codes, categories, and subcategories as well as their relationships with other coded parts could also be determined and counted. The software system is designed to allow the creation of the standard cases and codes to be used for tagging purposes and could then be identified with attribute values. It also allows the cases and codes to be shown in hierarchical view as shown in Figure 1 below.
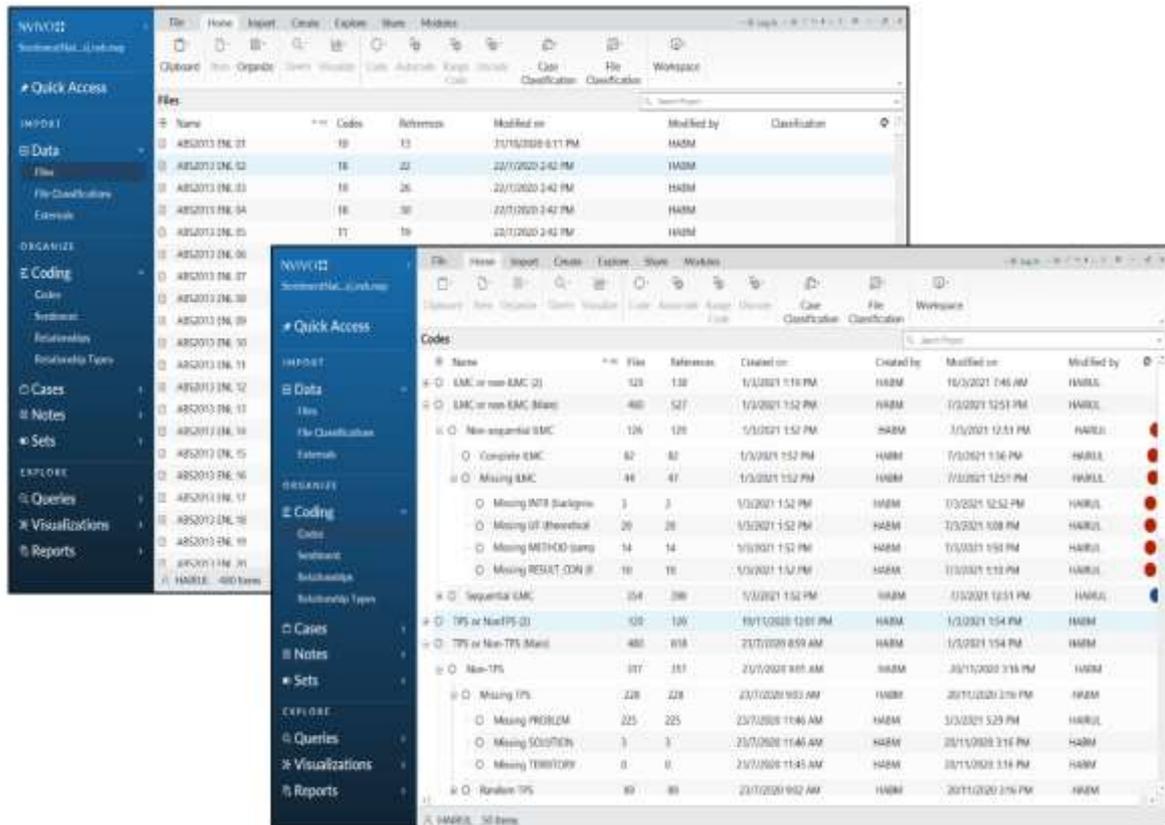

Figure 1: Hierarchical Illustrations of NVivo12 Display with Parent and Child Classification Codes

As shown in Figure 1, the NVivo12 hierarchical view of the parent codes is presented as the main code followed by the child codes. These codes were created by the research coders before the analysis process was performed by tagging the identified parts based on the created codes for classification purposes. Users could create up to 10-level codifications. After the manual codification analysis of the identified segments of the 480 research abstracts into the categorical moves of Introduction, Literature, Method, Conclusions, the frequency data were then generated into the Microsoft Excel file before it was entered into SPSS software for statistical analysis. Chi-square test of independence was used as the statistical test to examine the differences in the use of ILMC move structures and its subcategories by the WESL and WESL groups. The analysis was based on the same content analysis with the same qualitative software and statistical tests applied by Zolkapli et al. (2022) in their quantification of qualitative elements by codifying and identifying linguistic constituents at various levels of textual, sentential, and lexical compositions to generate legal text's frequencies of use of specific linguistic items.

Internal Consistency Reliability Reports

Since there were two data analysis coders involved in the codifications of the data, it was then important to establish internal consistency of the data analysis process in terms of its inter-rater and intra-rater reliability. First, intra-rater reliability test is a type of reliability test done to the codified sets of data performed by the main coder. The first set of analysed data for all samples would be tested in terms of its correlations with the second set of data. For the second set of data, a specific proportion of 25 to 30 per cent of all analysed research abstract compositions (RACs) would be re-coded by the main coder after an interval period of 3 months to see the consistency of the main coder's codification analysis. Intra-rater reliability was used by Mahzari and Maftoon (2007); Jalilifar (2010); Amnuai and Wannaruk (2012) in their studies to establish the test-retest reliability of the quantification analysis of their qualitative data. In the case of Amnuai and Wannaruk (2012), they performed this test by re-analysing 30 memorandums from the total 120 memorandums, equal to 25 per cent of samples used in their studies. Thereafter, a correlational test would then be performed to these two sets of data to find out if they were significantly correlated. Secondly, inter-rater reliability test is a type of reliability test to the codified sets of data performed by the main and second coder. The second coder possessed a similar level of trained skills in the quantification analysis of the qualitative data related to the topics under investigation. The second coder was also given a different proportion of 25 per cent of all analysed RACs to be coded by them. The proportion was based on the inter-rater reliability test employed by Zolkapli et al. in which 25 per cent of their samples were re-tested by another coder to ensure the consistency of the coding process. Their data set would be then tested against the overall data analysed by the first coder to see the correlation coefficient. This method was also applied by Lehman and Sułkowski (2020) in establishing the intra-rater and inter-rater reliability reports of their analysed samples in which the sample scripts were analysed by another coder and reliability coefficients were determined among the main and second coders. Thus, the same percentages were applied to the samples of the present study to validate the intra-rater and inter-rater reliability of the data analysis process.

Based on the internal reliability report of the phi (φ) product moment correlation coefficient, it can be concluded that inter-rater reliability was established between the first and second sets of data analysed by the main coder in codifying the sequential ILMC and non-sequential ILMC structures. The report shows that there was a strong correlation between the first and second sets of data analysed by the main coder at two different points in time ($\varphi >= .643$, $p < 0.01$). Further Cramer's V correlation coefficient reliability report of the subtypes of both ILMC structures (complete and missing subtypes) revealed that there was a moderate correlation between the first and second sets of data analysed by the main coder ($v= .528$, $p < 0.01$). Thus, it would be statistically adequate to conclude that intra-rater reliability was established in this research. As for the inter-rater reliability report of the same sequential ILMC and non- sequential ILMC structures, it was found that there was a strong correlation between the first and second sets of data analysed by the first and second coders respectively ($\varphi >= .595$, $p < 0.01$). Further Cramer's V correlation coefficient reliability report of the subtypes of both ILMC structures (complete and missing subtypes) revealed that there was a moderate correlation between the first and second sets of data analysed by the first and second coders respectively ($v= .631$, $p < 0.01$). Thus, it would be statistically adequate to conclude that inter-rater reliability was established in this research.

Results

This section of the paper shows the findings on the frequencies shown by writers of English as a second language (WESL) background and writers of English as a standard native English language (WESNL) background in their employment of Sequential and Non-sequential ILMC structures. It is followed by a further sub-categorisation analysis on their employment of the missing and complete sub-structures of the ILMC.

Findings on Frequencies of ILMC Move Structures

This study was conducted to analyse the two types of ILMC structures which were referred to as 'The sequential ILMC structure' and 'The non-sequential ILMC structure'. The sequential ILMC structure refers to the correctly and consecutively arranged order of ILMC moves in the overall structure of the RACs despite their complete and missing subtypes. Meanwhile, the non-sequential ILMC structure refers to the incorrect and irregular order of the ILMC moves in the overall structures despite their complete and missing subtypes. Table 1 shows the report of the frequency analysis of these two structures used by the WESL and WESNL groups in composing their research abstracts based on a frequency-based statistical test, known as the chi-square goodness of fit test of independence.

Table 1
Frequencies of Sequential and Non-sequential ILMC Sub-structures in WESL and WESNL Research Abstracts (RAs)

Organisational Move	Groups of RACs	Sequential	Non-sequential	TOTAL	X^2	df	p
ILMC	WESNL	156	84	240	18.98	1	.000
	WESL	198	42	240			
	TOTAL	354	126	480			

X^2 = *Pearson Chi-Square, df = Degree of Freedom*

As shown in Table 1, a contrastive analysis of the sequential and non-sequential ILMC move structures was conducted between the WESL and WESNL groups in composing research abstracts. The WESL group demonstrated more frequencies of RACs (198) in employing the sequential ILMC structures than the WESNL group of RACs (156). Meanwhile, the WESL group demonstrated lower frequencies of RACs (42) in employing the non-sequential ILMC structures than the WESNL RACs (84). In addition, the statistical differences in the employment of these sequential and non-sequential ILMC structures between the WESL and WESNL groups of research abstracts were significant, X^2 (1, N = 480) = 18.98, p < .001. Further sub-analyses showed that the majority of the WESL and WESNL groups of RAs were still mostly analysed with the sequential-order ILMC structures compared to the non-sequential order ILMC structures in organising their ideas in research abstract compositions.

Therefore, it can be interpreted from the findings above that the WESL group of RACs demonstrated the richer employment of orderly ILMC move structures than WESNL RAs by logically arranging their research ideas in the composition of the research abstract through the universally accepted consecutive four-point layout plan. It was done by firstly placing the background of their research work with opening move of introduction (I), followed by their next move of supporting their research with theoretical evidence of the existing literature (L), and further succeeded by the method (M) move which was employed to showcase the WESL research plan and design, data collection and analysis. Finally, the WESL group would properly culminate their research abstract composition with the conclusion (C) move by reporting the major findings and research recommendations. This conclusively demonstrates the WESL group's better discourse levels of applying a formal and sequential layout form in terms of logically structuring their research thoughts and ideas, thus exhibiting the WESL group's greater logical appeal of their text according to Aristotelian textual level of rhetoric.

Findings on Frequencies of Complete and Missing Subtypes of ILMC Move Structures
The following section of the paper shows the analysis on the sequential and non-sequential ILMC move structures in terms of the completeness subtypes of their moves. Two subtypes were explored at this point which included the complete subtype or the missing i.e., incomplete) subtype (i.e., missing any of the moves of Intro, Literature, Method, or Conclusion) for both move structures (sequential or nonsequential structures). As shown in Table 2, there are two subtypes for both structures – the complete subtype and the missing subtype in which their frequencies of occurrences were analysed between two groups (WESL versus WESNL) with a chi-square goodness of fit test of independence.

Table 2
Frequencies of Complete and Missing Sub-structures in WESNL and WESL Research Abstract Compositions (RACs)

Subtypes of Sequential and Non-sequential ILMC structures	Groups of RACs	RACs with Sequential ILMC		RACs with Non-sequential ILMC		Total	X^2	df	p
		Complete Subtype	Missing Subtype	Complete Subtype	Missing Subtype				
Complete versus Missing Subtypes	WESNL	23	133	51	33	240	20.88	3	.00
	WESL	28	170	31	11	240			
	Total	51	303	82	44	480			

X^2 = Pearson Chi-Square, df = Degree of Freedom

Referring to the column for the sequential ILMC move structures in Table 2, the WESL group presented more frequencies of the complete subtype with 28 RACs and more frequencies of the missing subtype with 170 RACs than the WESNL group which presented less frequencies

of the complete subtype with 23 RACs and less frequencies of the missing subtype with 133 RACs. As for the column for the non-sequential ILMC structures, the WESL group was found to exhibit less frequencies of the complete type with only 31 RACs and less frequencies of missing ILMC type with only 11 RAs than the WESNL group which presented more frequencies of the complete subtype with 51 RACs and more frequencies of the missing subtype with 33 RACs. The statistical differences between the WESL and WESNL groups were also significant, X^2 (2, N = 480) = 20.88, p < .001.

Therefore, it can be conclusively suggested from the findings above that both WESL and WESNL groups would be more likely to present their RACs with the missing subtypes of either Introduction (I), Literature (L), Method (M), or Conclusion (C) moves than the complete subtypes of moves in arranging the main ideas of their research abstracts despite having their ILMC structures with the sequential order. On the other hand, the WESL group would be more likely to present their RACs with the missing and complete subtypes than the WESNL group in organising the content of their research abstracts.

Finally, despite showing applying significantly different levels of richness in terms of the non-sequential ILMC move structures, it can be concluded from the above findings that both WESL and WESNL groups would be more likely to compose their research abstracts with the complete subtype instead of the missing subtypes of any of the moves of Introduction (I), Literature (L), Method (M), or Conclusion (C). However, when comparing the differences between both groups in terms of their frequencies of use of the subtypes, the WESL group would be less likely to compose their research abstract with both missing and complete subtypes than the WESNL group.

Contextual Instances of Most Frequent Complete and Missing Move Subtypes

In this section, the most frequent missing subtype, either Introduction (INTR), Literature (LIT), Methodology (METHOD), or Conclusion (RESULT_CON) moves, in both sequential and non-sequential ILMC move structures are presented to discover which move is the most frequent missing compared to the other moves. Afterwards, contextual examples of RAC with the most frequent missing move of Literature (L) and Methodology (M) will be presented and analysed in detail and then classified into their specific missing subtypes (either IMC, MIC, ILC, or LIC subtypes of move structures).
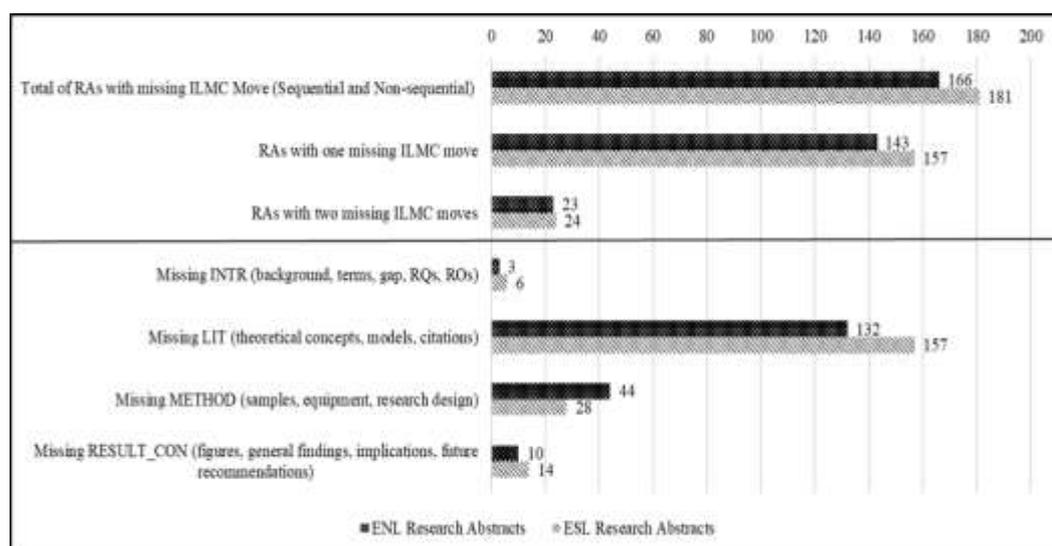

Figure 1: Summary of Total Number of RACs with Missing I, L, M, or C Move (Sequential and Non-sequential) by WESL and WESNL groups.

Figure 1 above shows a summary graph of missing moves for both WESL and WESNL groups of RACs. Missing Literature (L) move was identified to be the most frequent missing move compared to other types of moves with 132 RACs for the WESNL group and 157 RACs for the WESL group. The second most frequent missing move was the missing move of Method (M) with 132 RACs for the WESNL group and 157 RACs for the WESL group. The other two moves (Introduction and Conclusion) were shown to be the least missing move, thus making it inconsequential for this section of report because these moves were mostly included in most of the 480 RACs for both WESL and WESNL groups.

In terms of the contextual examples of occurrences of the most frequent missing moves, the following section of the chapter presents the contextual qualitative analysis report of two RACs extracted from the WESL group and two RACs extracted from the WESNL groups which can be employed to demonstrate both the most frequent missing move of Literature and the second most frequent missing move of Method. All samples were selectively taken from the researcher's database of all 480 RAC samples.

Based on the previously reported findings in the earlier section of the paper, the WESL group showed more frequencies of RACs of the sequential structure with the missing move of literature than the WESNL group. Thus, the following Figure 2 below presents a sequential-order RAC taken from the WESL group of research abstract sampling database with the missing move of Literature (L).
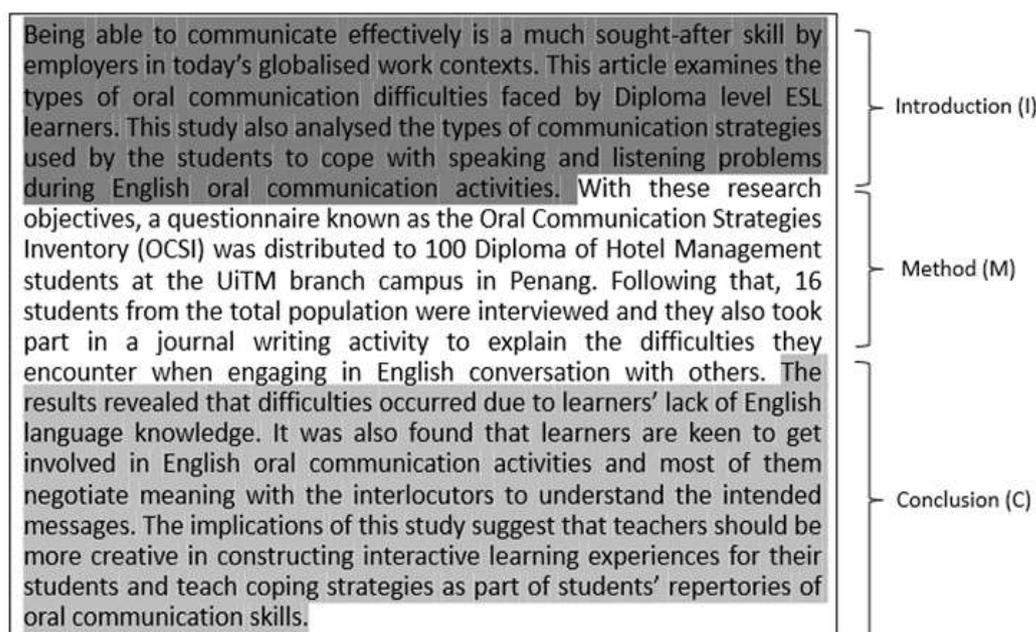

Figure 2: WESL_RAC_008_Y2014 of Sequential IMC Structure with Missing Move of Literature (L)

Figure 2 displays a WESL RAC no. 008 from 2013. The title of the RAC is '*Oral English Communication Difficulties and Coping Strategies of Diploma of Hotel Management Students at UiTM*'. Referring to the ILMC model of move structure, the writer composes the research abstract with the opening move of Introduction (I) which contains the background information of the research on the types of communication difficulties and strategies to overcome it. As shown, there is no information related to the move of Literature (L) review as it is clearly omitted in the composition of this research abstract, hereby rendering the

research abstract structure to have the missing move of Literature (L) - the most frequent missing move of the ILMC structure mentioned earlier. The remaining moves are intactly exhibited in the above research abstract in which the move of Method (M) with the details on the research instrument - the distribution of an OCSI questionnaire to 100 respondents and interviews, is consecutively presented. In accordance with the sequential ILMC model of move structure, the RA finally concludes with a move of Conclusion (C) (i.e., listening and speaking issues were the results of learners' lack of English linguistic knowledge).

Thus, it would be concluded in terms of the presented sequence and structure of organising the main ideas in composing this research abstract that the WESL group would compose their research abstract by employing the sequential ILMC structure with the missing move of Literature (L). It is hereby categorically analysed as an IMC structure (Introduction - Method - Conclusion). The finding represents an ideal contextual example of the discourse-level tendency shown in the overall findings earlier that ESL writers would compose more of their research abstract with the missing move of literature than WESNL group but would still retain the sequential order of structure.

Furthermore, it was shown in the previously reported findings in the earlier section of the paper, the WESNL group showed more frequencies of RACs of the non-sequential structure with the missing move of literature than the WESL group. Thus, the following Figure 3 below presents a nonsequential-order RAC taken from the WESNL group of research abstract sampling database with the missing move of Literature (L).
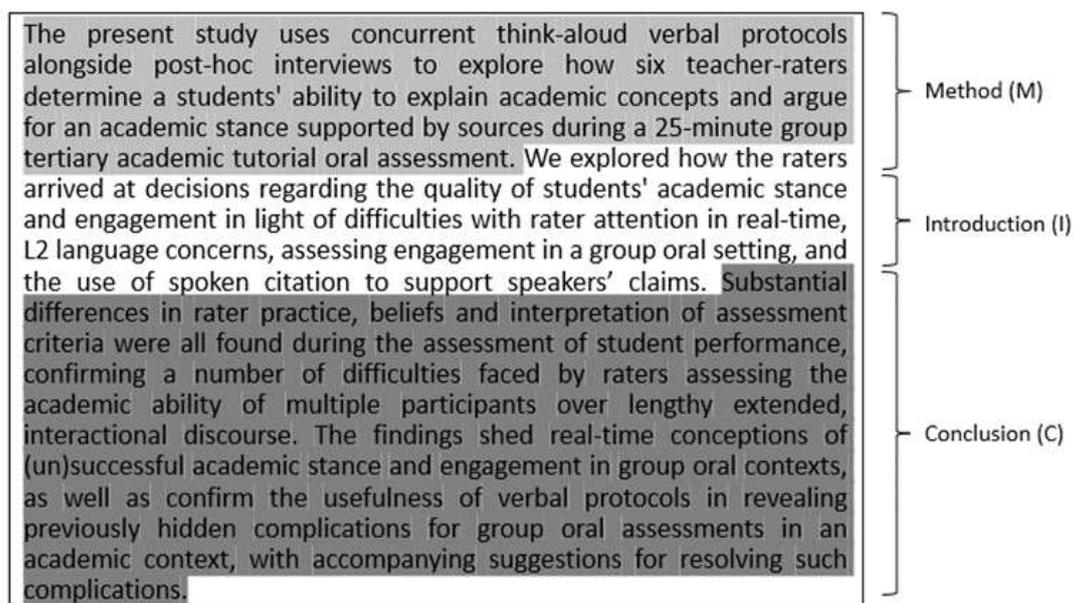

Figure 3: WESNL_RAC036_Y2017 of Non-sequential MIC Structure with Missing Move of Literature (L)

Figure 3 displays a WESNL research abstract no. 036 from 2017. The title of the research abstract is '*Exploring rater conceptions of academic stance and engagement during group tutorial discussion assessment*'. Referring to the ILMC move structure model, the RA is composed with the opening move of Method (M) move with the details on the method of data collection through the think-aloud protocol and post hoc interviews, instead of the opening move of Introduction. After that, the research abstract is composed with the move of Introduction (I) through the details related to the research topic about students' ability to

explain academic concepts, and the research aims to explore the quality of students' academic stance as well the details related to problem statement about the difficulties with real time rater's attention. The move of Literature (L) review with the details related to the underlying framework or previous studies is, however, not included in composing this research abstract, thus rendering it to display the missing move of Literature (L). The composition of this research abstract is finally concluded with the move of Conclusion (C) by presenting findings on the difficulties of the raters and their unsuccessful ability to explain their academic stance).

Thus, it could be concluded in terms of the presented sequence and structure of organising the main ideas in composing this research abstract that the WESNL group would compose their research abstract by employing the non-sequential ILMC structure with the missing move of Literature (L). It is hereby categorically analysed as an MIC structure (Method - Introduction - Conclusion). The finding represents an ideal contextual example of the discourse-level tendency shown in the overall findings earlier that the WESNL group would compose more of their research abstract with the missing move of literature than the WESL group and would also apply the non-sequential order of structure.

Referring to the findings in Figure 1 earlier, the WESL group was found to show more frequencies of RACs of the sequential structure with the missing move of methodology than the WESNL group. Thus, the following Figure 3 below presents a sequential-order RAC taken from the WESL group of research abstract sampling database with the missing move of Methodology (M).
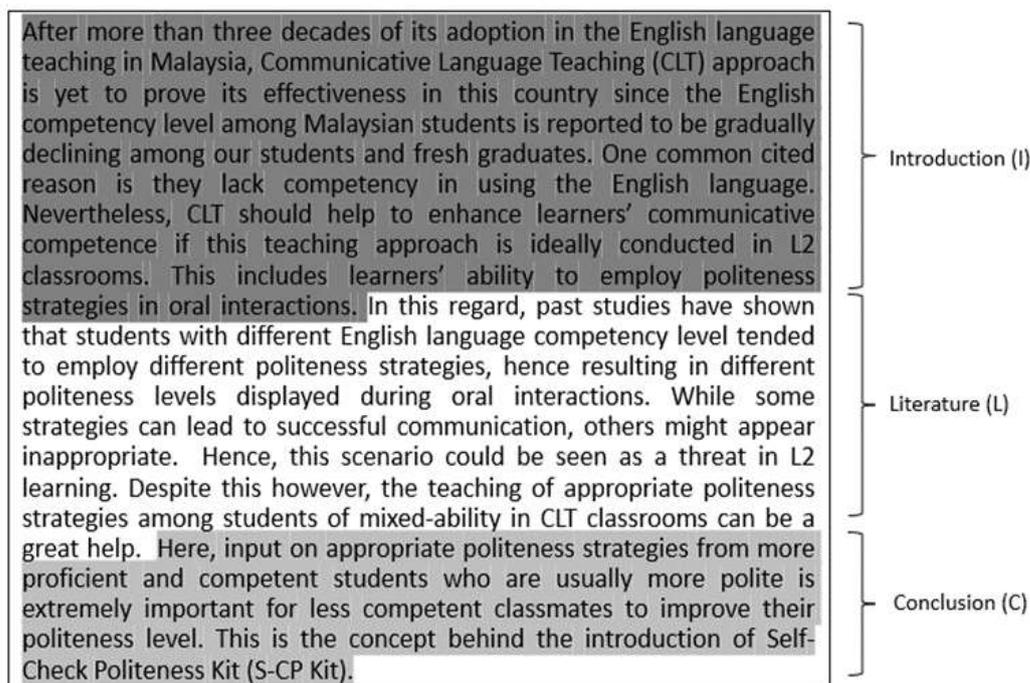

Figure 4: WESL_RAC014_Y2018 of Sequential ILC Structure with Missing Method (M) Move

Figure 4 displays a WESL research abstract no. 014 from 2018. The title of the research abstract is '*Addressing the issue of mixed-ability students in CLT classrooms using self-check politeness kits.*' Referring to the ILMC model of move structures, the research abstract is firstly composed with the opening move of Introduction (I) with the background details of the research (i.e., topic of CLT, problem statement of its untested effectiveness and its relation to

politeness strategies). It sequentially continues with the next move of Literature (L) with details related to the past studies on various levels of politeness strategies. However, the move of Method (M) with anticipated details related to the research design and data collection was not provided in the next part of this research abstract composition, thus rendering it to display the missing move of Method (M). Finally, the composition continues to end the research abstract with the last move of Conclusion (C) by presenting the details related to major conclusion and recommendation points on the application of Self-Check Politeness Kit (S-CP Kit).

Based on the part-by-part content analysis of the above research abstract, it could thus be suggested in terms of the presented sequence and structure of organising the main ideas in composing this research abstract that the WESL group would compose their research abstract by employing the sequential move structure with the missing move of Methodology (M). It is hereby categorically analysed as an ILC structure (Introduction - Literature - Conclusion). The finding represents an ideal contextual example of the discourse-level tendency shown in the overall findings earlier that the WESL group would compose more of their research abstract with the missing move of methodology than the WESNL group but would still retain the sequential order of structure.

Referring to the findings in Figure 1 earlier, the WESNL group was found to show more frequencies of RACs of the non-sequential structure with the missing move of methodology than the WESL group. Thus, the following Figure 5 below presents a nonsequential-order RAC taken from the WESNL group of research abstract sampling database with the missing move of Methodology (M).
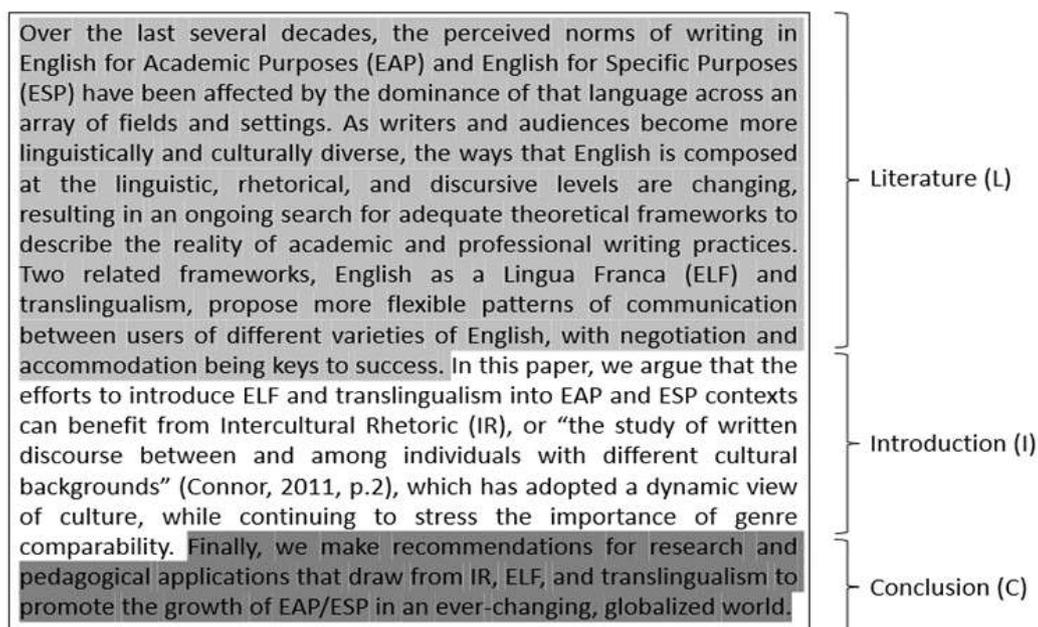

Figure 5: WESNL_RAC001_Y2017 of Non-sequential LIC Structure with Missing Method (M) Move

Figure 5 displays a WESNL research abstract no. 001 from 2017. The title of the RA is '*What intercultural rhetoric can bring to EAP/ESP writing studies in an English as a lingua franca world*'. Referring to the ILMC model of move structure, the composition of the research starts

with the move of Literature (L) based on the details of cited previous studies on English for Academic Purpose and English for Specific Purposes and two related theoretical framework - the concept of English as a Lingua Franca (ELF) and the concept of translingualism). Afterwards, the opening move of Introduction (I) is subsequently presented through the problem statement on the researcher's endeavours to introduce these two concepts of ELF and translingualism into the contexts of EAP and ESP which would contribute to the area of Intercultural Rhetoric (IR). However, the following anticipated move of Methodology (M) with the details related to the research design and data collection is not indicated in the next part of the composition, thus rendering the RA to have the missing move of Method (M). Accordingly, the RA was ended with the move of Conclusion (C) by finally offering the details on research recommendations for the studies of IR, ELF, and translingualism as well as the pedagogical applications).

Based on the part-by-part content analysis of the above research abstract, it could thus be suggested in terms of the presented sequence and structure of organising the main ideas in composing this research abstract that the WESNL group would compose their research abstract by employing the non-sequential move structure with the missing move of Methodology (M). It is hereby categorically analysed as an LIC move structure (Literature - Introduction - Conclusion). The finding represents an ideal contextual example of the discourse-level tendency shown in the overall findings earlier that the WESNL group would compose more of their research abstract with the missing move of methodology than the WESNL group without retaining the sequential order of structure.

Discussion and Conclusion

Based on the theory of discourse types and genres on academic writing articles (Swales, 1990), an organisational move structure model was studied in the present research to find out the frequency of its use in arranging the research ideas in composing research abstracts at the discourse level of a text. The move structure was referred to as the Introduction - Literature - Methodology - Conclusion (or ILMC) pattern employed by Malaysian ESL writers and International native English writers with different degrees of frequencies and levels of rhetorical richness. This move structure model was associated with the Aristotelian logical appeal for its sequential arrangement of research sections, thus demonstrating the systematic, technical, and well-structured form of textual organisation.

Based on the findings of the research presented earlier, it can be reiterated that the ILMC move structures were frequently applied by both WESL and WESNL groups in composing their research abstracts at different richness levels of application. This finding was in congruence with a rhetorical claim made by Kaplan et al. (1994) who would recommend the application of ILMR/C structure in composing any linguistic researcher's technical-related research abstracts. Generally, both groups of writers would commonly present their research ideas in a logically arranged descending sequential order compared to the non-sequential order. This would be attained through the four move components presented consecutively to ensure that all major parts related to the research would be methodically manifested in the composition of research abstracts without any unintentional act of missing them out. This would be a rhetorical means to appeal to readers' logic by expecting the composition to be organised in an orderly and universally accepted fashion. As supported by Aristotle and Kennedy (1991), and Pennebaker et al (2015), the logical and analytical order of discourse information containing the expected parts and their details would serve as an effective window to appeal to the logical and analytical minds of the readers.

As shown in the findings of the study, the first component move would be employed by these Malaysian writers of English as a second language (WESL) and English writers of English as a standard native language (WESNL) group as the opening section of the research abstract to establish the composition with the background details of the study and followed by the subsequent component to review the supporting literature of the topic under examination. Afterwards, the WESL and WESNL would show the action plans of the research through the part explicating the research methodology. Accordingly, the final part of the composition would be employed by both groups of writers to dedicate it to the reporting part of the main results as well as their related conclusions, thus constituting it as the rhetorical move of result/conclusion. The proposed sequential structure in organising the parts based on the major details was examined by Harati and Mobashshernia (2019) in their macro structural move analysis involving empirical research abstracts. It was similarly conducted by analysing the similar parts or components of research abstracts which included the respective sections accordingly arranged for Introduction, Literature, Method, Result and Discussion, or also known as the ILMRD microstructure, and the respective sections accordingly arranged for Introduction, Literature, Method, Results, and Conclusion or hereby known as ILMRC microstructure of research composition. Based on the examination of component sections in this study and previous studies, it could be concluded that these move structures identified based on the common details related to various parts of research abstract compositions were the common move structures presented at the discourse level of an academic research text in organising the content of the writers' major research ideas in a systematic and logically appealing manner, thus fulfilling the Aristotelian rhetorical aim of logos or logical domain.

Furthermore, writers from the ESL group would demonstrate greater usage of sequential move structure, and fewer usage of non-sequential move structures of the ILMC layout than the writers of ESNL group who would prefer to employ greater usage of non-sequential move structures and lesser usage of sequential move structures in arranging the content of their abstract. Despite being a non-native writer of the English language, the finding signifies that the WESL group would be more likely to develop their writing style like the one shown by Anglo-European style which is straightforward and non-circular in its elaboration pattern. This development style of writing shown by WESL group contradicts Kaplan (1966) and Li and Xu (2020) who argued for the common style of Asian writers who would adopt the circular and non-linear development style of academic research paper writing in delivering the main ideas of their research as well as the details related to the main ideas. Similarly, the finding also did not substantiate the research conclusion made by Susilowati and Akmilia (2019) who maintained that non-native English writers would firstly expand the details of their points in an iterative manner before making clear with the main point. This shows that the WESL group of Malaysian background in this study defies the common idea associated with the non-native circumlocutory form of writing development style in which they would prefer to demonstrate the native English style of non-reiterative writing development.

In addition, this study also discovered that despite composing their research abstracts in a common sequential non-iterative development style, Malaysian writers of ESL would show more missing cases of the ILMC move structures than the English writers from the UK, US, and Australia. The former group would more likely exclude the use of certain moves compared to the latter group. The most frequent missing moves would be the moves dedicated to the Literature section, followed by the move for the Methodology section. However, this finding failed to corroborate the finding obtained by Harati and Mobashshernia (2019) who would underscore the use of Literature move in technical papers related to

management filed for its significant function in elaborating the literary evidence of the topics under examination. Most probably, this pattern was more applicable for management related articles and the same pattern was thus not reflected in the linguistic related papers studied in this research.

In terms of theoretical contribution, this research helps provide more definitive information about the distinct rhetorical writing patterns shown by ESL writers compared to the native English writers in organising the content of their research ideas. This adds on to the knowledge repertoire of the discipline and theories of contrastive rhetoric by highlighting the importance of the logical appeals of similar and different organisational patterns shown by both groups of writers. As for the contextual contribution of the research, the findings allow the ESL writers of academic research to know that they may write their academic papers with their 1st language style in communicating their research points and message which may compromise the native English readers' understanding of their research work, especially in the international journals. Thus, extra caution and care for their 1st language effects in their writing must be exercised occasionally depending on their readership contexts. Their writing styles must be adjusted to accommodate the expectations of the target ESL or native English readership to ensure that their message is clearly and easily understood.

It is recommended that future research could be conducted to explore the reasons behind the rhetorical move structure patterns shown by Malaysian writers for omitting the important moves of literature and methodology which was less often reflected by the international writers of English as a native language. Further comparisons could be examined between two or more different disciplines in terms of this non-native writers' lack of awareness of these moves to be included in their compositions so that it could help enlighten any culture-mediated influences shown by smaller cultural groups of research writers from various areas of knowledge and disciplines. This would be able to contribute to the body of knowledge related to the sub-area of intercultural rhetoric which builds upon the larger domain of contrastive rhetoric.

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