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Rhetorical moves of research article abstracts: a comparative study of national and international journals

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Abstract. As the summary of a full article, an abstract plays a pivotal role in communicating the essential ideas of the work. This discourse study aims to investigate the rhetorical move distinctions of English research article (RA) abstracts published in an Indonesian national journal, namely *LLT Journal: A Journal on Language and Language Teaching* and an international journal, namely *System Journal*. A corpus of 120 English RA abstracts published in 2018-2020 was collected from both journals. The data were analyzed by using top-down analysis, the framework of which was the five-move model by Swales and Feak (2009). The results showed that Move 1 (65%) was conventional and Move 5 (57%) was optional in *LLT Journal*. Meanwhile, Move 5 (77%) was conventional and Move 1 (58%) was optional in *System Journal*. *Move 5 Discussion* (M5Dis) and *Move 3 Subjects* (M3Sub) were not typical in *LLT Journal* and *System Journal* sequentially. *Move 2 embedded in Move 3* was present in *System Journal* while it was absent in *LLT Journal*. The most frequent move pattern in *LLT Journal* was the five-move pattern (M1-M2-M3-M4-M5), while the pattern in *System Journal* was the four-move pattern (M2-M3-M4-M5). To conclude, the rhetorical moves of RA abstract in both journals differed in terms of the optional and conventional moves, non-typical moves, embedded moves, and most frequent move pattern. Accordingly, future researchers are recommended to further investigate lexical and syntactical signals of each rhetorical move.

Keywords: Research article abstract; Rhetorical move; Swales and Feak's five-move model

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Introduction

To publish articles in academic journals, authors have to include their abstracts following the given guidelines. The abstract is the first part that readers encounter before reading the whole article (Hyland, 2004). It is a description or factual summary of the much longer report, which is intended to give the readers exact and concise information of the full article (Bhatia, 1993). Unfortunately, the

restriction of the word numbers induces the hardship in writing an abstract for the authors (Swales & Feak, 2009). An adequate understanding of knowledge cannot assure the writing skills of the writers. A good abstract communicates the essential ideas of the work. It should include the information about what the writers conducted in the research, how they did it, what they discovered, and what they concluded from the research.

According to Wallwork (2013), an abstract is crucial due to four reasons. First, it determines whether the article is worth having an exclusive review by editors. Second, it is the first part readers read before going deeper into the article. Third, it is the part at which the readers make a judgment for the accompanying article. Fourth, it helps readers to decide whether to read the rest of the article. Moreover, Olson (2014) mentioned that an abstract must be well written. The abstracts should be properly punctuated in complete sentences. Every sentence should contain maximum information with minimal use of minor words and each main word should be precise and informative. More importantly, the first sentence of the abstract needs to be polished to perfection both in content and style to gain the confidence and interest of the readers. Furthermore, since a research article abstract functions as a stand-alone mini text, as a screening device, as a preview, and as an indexing help for writers and editors (Huckin, 2001), it has to be precise, concise, engaging, and also densely packed with information in order to attract readers' attention (Olson, 2014; Putri & Kurniawan, 2021; Wallwork, 2011). A well-structured abstract allows the readers to grasp the content of the article, determine how relevant it is to their interests, and decide whether to read the entire article.[1] Hence, an abstract must be written in effective patterns clearly and interestingly since it plays a pivotal role in academic writing (Amnuai, Kotuta & Duangprasertchai, 2020; Hafidzoh & Hardjanto, 2019).

Swales and Feak (2009) have proposed a move model of an abstract. A move, a functional term that varies from a phrase to a paragraph, is defined as "a stretch of text that does a particular job" (p. 5). The model consists of five moves where each move has implied questions which are helpful for authors with their abstracts, namely (1) *Move 1 Background/ introduction/ situation* with the implied question "What do we know about the topic? Why is the topic important?", (2) *Move 2 Present research/ purpose* with the implied question "What is this study about?", (3) *Move 3 Methods/ materials/ subjects/ procedures* with the implied question "How was it done?", (4) *Move 4 Results/ findings* with the implied question "What was discovered?", and (5) *Move 5 Discussion/ conclusion/ implications/recommendations* with the implied question "What do the findings mean?" (Swales & Feak, 2009: 5).

Move 1 Background/ introduction/ situation has a purpose to provide the rationale for the study as well as to attract interest in the topic (Swales & Feak, 2012). In this move, the authors need to provide background information to situate the research. This move can be realized in three ways, namely by (a) providing a general phenomenon or standard practice and summarizing previous studies – *background*, (b) making topic generalization – *introduction*, and (c) describing a problem or uncertainty or indicating a gap – *situation*.

Move 2 Present research/ purpose functions to describe the core intention of the study. This move can be realized by, first, announcing the present study or describing the researcher's action in the study – *present research* and second, stating the objective(s) or research question(s) of the study – *purpose*.

Move 3 Methods/ materials/ subjects/procedures presents how the study was conducted. Past tense and passive sentences are used in this move (Swales &

[1] National Information Standards Organization (2015) ANSI/NISO Z39. 14-1997(R.2015). *Guidelines for abstracts*. Baltimore, Maryland: The National Information Standards Organization, 1-20. Retrieved from https://groups.niso.org/apps/group_public/download.php/14601/Z39-14-1997_r2015.pdf

Feak, 2009). The realization of this move can be differentiated into four ways, namely (a) by describing the methodology of the study regarding research design, data analysis, data collection procedure, instruments, and setting of the research – *methods,* (b) by providing information about the object of the study or source of the data – *materials,* (c) by describing the participants or animate object of the study – *subjects,* and (d) by outlining a step-by-step manner done in the study or providing investigative action in a sequence – *procedures*.

Move 4 Results/ findings functions to present the results of the study. There are some expressions used to indicate the general results, such as *overall, in sum, more generally,* and *in general.* Some adverbs, such as *specifically, particularly, first... second...,* and so on, are used to indicate specific results. In this move, the authors need to report and summarize the results of the study.

Move 5 Discussion/ conclusion/ implications/ recommendations is the move in which the authors discuss or conclude the results of the study and/or give implications or recommendations to future researchers. The last move in abstracts can be divided into four different manners, namely (a) by giving general discussion of the results – *discussion,* (b) by interpreting the results of the study – *conclusion,* (c) by indicating the contribution or significance of the study – *implications,* and (d) by giving suggestions or recommendations to future researchers – *recommendations*.

Swales and Feak's (2009) five-move model has been developed through in-depth processes which involve numerous cross-disciplinary research articles as the specialized corpora (p. xii). It is also designed with some tasks which lead to greater awareness and understanding of constructing abstracts (p. xiii). In other words, Swales and Feak's five-move model is trustworthy as the guidance for writing English research article abstracts (RAAs henceforth). Accordingly, this model is used in this study as the framework for analysis.

Many studies have analyzed English RAAs, focusing on their discourse patterns and linguistic characteristics across various disciplines. In the comparative study of RAAs in applied linguistics, Andika, Arsyad, and Harahap (2018) used Swales and Feak's (2009) five-move model to examine the rhetorical moves and linguistic features of 60 abstracts written by postgraduate students and national and international authors. The results of the study revealed three moves (e.g., purpose, method, and results) as well as linguistic features (e.g., active voice, present tense, simple sentence) were commonly used by three groups of authors. The differences were found in the postgraduate students' abstracts which dominantly used past tense and hedges and rarely occupied Move 1 (*Background/ introduction/ situation*).

Similarly, Paydari and Paramasivam (2019) identified the move structures of English RAAs in the field of political science in Iranian journal. They analyzed 120 abstracts by using Hyland's (2000) five-move model as the framework. The findings of the study indicated that the moves of political science RAAs were different from Hyland's model in terms of move patterns. The move patterns used by political science authors were the three-move and two-move patterns, indicating the low frequency of Move 1 (*Introduction),* Move 4 (*Product*), and Move 5 (*Conclusion*) in their abstracts due to the lack of genre competence displayed by the authors in implementing those three moves.

Another study, conducted by Hafidzoh and Hardjanto (2019), investigated English RAAs of applied linguistics focusing on the authors of RAAs. They used Pho's (2013) five-move model as the framework in analyzing 30 English RAAs published in Applied Linguistics journal and Journal of English for Academic Purposes. The results of their study showed that the common move patterns of the abstracts were five-move and four-move patterns. More recently, Tamela (2020) also conducted a comparative study on RAAs published in national and international Scopus-indexed journals. She employed

Hyland's (2000) five-move model to analyze each move of the abstracts. The investigation of move structure in RAAs retrieved from TEFLIN and TESOL Quarterly journals came up with the results that I-P-M-Pr (Introduction-Purpose-Method-Product) and P-M-Pr (Purpose-Method-Product) were the two dominant move patterns found in both journals respectively, indicating that *Purpose*, *Method*, and *Product* were obligatory moves in both journals.

Less research has been conducted on the rhetorical moves of English RAAs using Swales and Feak's (2009) five-move model as the framework of analysis. Although the previous study conducted by Andika, Arsyad & Harahap (2018) used the move model as the framework to identify the rhetorical moves and linguistic features of English RAAs, they did not explore the realization of each typical label of a move. Thus, this study intends to fill the gap by conducting further investigation on how Swales and Feak's (2009) five-move model is applied in English RAAs.

The present study aims to examine the English RAAs published in an Indonesian national journal, i.e., *LLT Journal,* and an international journal, i.e., *System Journal* by applying Swales and Feak's (2009) five-move model. This study focuses on investigating the rhetorical move distinctions of English RAAs in the journals.

Methodology

This research employed discourse analysis. Discourse analysis is the study of linguistic structure "beyond the structure" (Schiffrin, Tannen, and Hamilton, 2001, p. 1). It focuses on lexico-grammatical features that indicate the organization of discourse (Biber, Connor, & Upton, 2007). In this study, the researchers analyzed the RAAs by using Swales and Feak's (2009) five-move model. Subsequently, the rhetorical moves of RA abstracts were compared to find out the differences of each data set.

The corpus data of 120 RAAs published in 2018-2020 were drawn from two journals, namely *LLT Journal: A Journal on Language and Language Teaching* (*LLT Journal*, henceforth) and *System Journal*. The researchers randomly picked 60 RAAs from each journal to make a proportional representation. To make data collection easier, the research articles retrieved from *LLT Journal* were coded as LJ, while the ones retrieved from *System Journal* were coded as SJ.

After all abstracts were collected and coded, they were analyzed by using top-down corpus-based analyses as suggested by Biber, Connor, and Upton (2007). This approach consists of seven steps, namely (1) communicative/functional categories, (2) segmentation, (3) classification, (4) linguistic analysis of each unit, (5) linguistic description, (6) text structure, and (7) discourse organizational tendencies. Ultimately, the general patterns of RAAs structures across all texts in the corpora were presented. To validate the data, the researchers double-checked the classification of each move occurrence and recoded if some mistakes were found.

The move coding was conducted to ease data analysis. The codes were designed with the combination of initial letter and abbreviation of each functional type of each move, which was elaborated as follows: *Move 1 Background* (M1Bg), *Move 1 Introduction* (M1Int), *Move 1 Situation* (M1Sit), *Move 2 Present research* (M2Pr), *Move 2 Purpose* (M2P), *Move 3 Methods* (M3Meth), *Move 3 Materials* (M3Mat), *Move 3 Subjects* (M3Sub), *Move 3 Procedures* (M3Pro), *Move 4 Results/Findings* (M4R), *Move 5 Discussion* (M5Dis), *Move 5 Conclusion* (M5Con), *Move 5 Implications* (M5Imp), and *Move 5 Recommendations* (M5Rec). For *Move 4 Results/Findings*, its typical labels were not differentiated as there was no significant difference between results and findings.

With regard to embedded moves, the researchers used Santos' (1996) framework in coding the data. For example, <M2P> marks the start of the Move 2 *Purpose*, while </M2P> marks the end of the Move 2 *Purpose*. Similarly, <M3Meth> marks the

start of the Move 3 *Methods* and </M3Meth> marks the end of the Move 3 *Methods*.

Results and Discussion

Differences of Rhetorical Moves of RAAs in both journals

In this study, some rhetorical moves of Swales and Feak's (2009) five-move model were found in both *LLT Journal* and *System Journal*. The frequency of rhetorical move occurrences found in the RA abstracts of both journals is shown in Table 1.

Table 1. Rhetorical move occurrences in RA abstracts

CODE	LJ (n=60)		SJ (n=60)	
	N	%	N	%
M1	39	65%	35	58%
M2	59	98%	57	95%
M3	57	95%	52	87%
M4	51	85%	53	88%
M5	34	57%	46	77%

The findings showed that all five moves of Swales and Feak's (2009) model appeared in the two sets of data. Move 1 appeared 65% in *LLT Journal* and 58% in *System Journal*. Move 2 had the highest frequency in both journals with 98% and 95% percentages. The occurrence of Move 3 appeared higher in *LLT Journal* (95%) than that in *System Journal* (87%). For Move 4, it had a higher frequency (88%) in *System Journal* compared to *LLT Journal* (85%). Move 5 seems to be more rarely occupied by the writers in *LLT Journal* (57%) compared to *System Journal* (77%).

Hence, the occurrences of three moves, namely Move 2, Move 3, and Move 4, had a higher frequency than those of Move 1 and Move 5 in both journals. According to Kanoksilapatham (2005), a move is considered obligatory if it occurs in every RA abstract (100%), conventional if it occurs in 60% to 99%, and optional if it occurs lower than 60%. Although the frequency of occurrences of Move 2, Move 3, and Move 4 did not reach 100%, their frequencies were high. Moreover, the high frequency of Move 2, Move 3, and Move 4 was consistent with some previous studies (Ahmed, 2015; Pho, 2013). The high frequency was because the authors considered those three moves were more important than the other moves (Amnuai, 2019; Tamela, 2020). Thus, Move 2, Move 3, and Move 4 were essential and considered as the obligatory moves both in *LLT Journal* and *System Journal*. The lower frequency of Move 1 and Move 5 was because Move 1 and Move 5 were not considered as the obligatory moves in RAAs (Ahmed, 2015; Hakim, Arsyad, & Syahrial, 2021). They were considered as the supplementary moves. Therefore, Move 1 was considered conventional in *LLT Journal* and optional in *System Journal*, while Move 5 was considered optional in *LLT Journal* and conventional in *System Journal*.

To conclude, Move 2, Move 3, and Move 4 were obligatory in the two sets of data. In line with Swales and Feak's (2009) findings, Move 2 was the most common move of the two journals. Move 1 was conventional and Move 5 was optional in *LLT Journal* and vice versa in *System Journal*.

Table 2. Typical rhetorical move occurrences in *LLT Journal*

MOVE CODE		N	%
M1 (n=39)	M1Bg	16	41%
	M1Int	18	46%
	M1Sit	18	46%
M2 (n=59)	M2Pr	30	50%
	M2P	36	61%
M3 (n=57)	M3Meth	51	89%
	M3Mat	5	9%
	M3Sub	24	42%
	M3Pro	13	23%
M4 (n=51)	M4R	51	100%
M5 (n=34)	M5Dis	1	3%
	M5Con	12	35%
	M5Imp	19	56%
	M5Rec	6	18%

RA Abstract Moves in LLT Journal

Based on Table 2, Move 1 was occupied by 16 authors employing M1Bg (41%), 18 authors employing M1Int (46%), and 18 authors employing M1Sit (46%). Although M1Bg had the lowest frequency, the difference was only 2% compared to the other two moves. Consequently, M1Bg, M1Int, and M1Sit were typical. Some examples of the occurrences of Move 1 in *LLT Journal* are as follows.

<M1Bg> ***Research has shown that*** *more effective language learners use more and better learning strategies . . .* {LJ1/18_S2}

<M1Int> *Tableau actually* ***is*** *one of the process drama techniques . . . Tableau is theoretically useful for students to . . .* {LJ37/19_S2;S3}

<M1Sit> *Although the course has been designed for communicative purpose, some students* ***still*** *are not be able to . . .* {LJ6/18_S4}

<M1Sit> ***However****, EFL instructors' beliefs about . . .* ***are scarcely explored****.* {LJ45/20_S2}

The occurrence of M1Bg in LJ1/18_S2 showed that the authors reviewed previous studies to situate their present research. The authors used the sentence *Research has shown that . . .* to specify the important findings of previous study (Swales, 1990). Additionally, the present perfect tense was employed by the authors to indicate the relevance of previous studies with their own study. Therefore, this sample occupied M1Bg by summarizing existing studies (Pho, 2013).

LJ37/19_S2;S3 showed the occurrence of *Move 1 Introduction*. Here, the sentence *Tableau actually is one of . . .* showed that the authors generalized the topic by defining the topic based on the authors' judgment. Next, the author described the importance of the topic based on the theory by using the sentence *Tableau is theoretically useful for . . .* Here, the lexicon *is* signalized M1Int.

The occurrence of M1Sit (LJ6/20_S5) showed that the researcher described an existing condition that was used as the basis of the present research. The author used the sentence *... some students still are not be able to ...* to present the problem or condition faced by the students. The lexicon *still* indicated that the problem was continuing to happen.

However, some authors occupied M1Sit by pointing a gap in the previous study (Swales, 2004). For example, in LJ45/20_S2, the phrase ... *are scarcely explored* indicated that the research investigating EFL instructors' beliefs was still limited. The transition signal, *however,* was used to indicate a problem.

A deeper analysis showed that the most common structure in the occurrence of Move 1 was generalizing the topic (M1Int), followed by indicating a gap (M1Sit). In other words, the authors sequentially occupied M1Int and M1Sit, resulting in the same percentage on M1Int and M1Sit.

Move 2, namely *Present research/ Purpose*, was occupied by 30 authors employing M2Pr (50%) and 36 authors employing M2P (61%). Both moves were considered typical as the difference was only 11%. The examples of the occurrences of Move 2 are as follows.

<M2Pr> ***This study explored*** *the language attitude in terms of gender and socio-economic status (SES . . .* {LJ12/18_S1}

<M2P> ***This study aims to*** *report the utility of Pecha Kucha in promoting students' speaking skills . . .* {LJ6/18_S1}

<M2P> ***There are 4 research questions addressed in this study, namely*** *(1) . . . (2) . . . (3) . . . and (4) . . .* {LJ60/20_S3}

The occurrence of M2Pr (LJ12/18_S1) showed that the authors described the present research. The noun phrase *this study* was used to refer to the present study (Pho, 2013). In this case, the lexicon *explore* indicated an action that the present study was going to do. In realizing M2P, the author directly stated the purpose of the present study by using the sentence *this study aims to ...* (LJ6/18_S1). Here, the lexicon *aim* was employed to indicate the objective of the study. However, the occurrence of M2P (LJ60/20_S3) showed that the author used the sentence *there are 4 research questions addressed in this study* to state the research questions. The lexicon *namely* was employed to outline the research questions in detail. The detail of research questions is another way to indicate the objective of the study. Therefore, LJ6/18_S1 and LJ60/20_S3 were coded as M2P.

Move 3, namely *Methods/ Materials/Subjects/Procedures*, was used by 51 authors employing M3Meth (89%), 5 authors employing M3Mat (9%), 24 authors employing M3Sub (42%), and 13 authors employing M3Pro (23%). Therefore, M3Meth, M3Pro, and M3Sub were typical, whereas M3Mat was not typical. The following are the examples of the occurrences of Move 3.

<M3Meth> ***The data were analyzed by*** **using** paired sample and independent sample t-test. {LJ15/18_S3}

<M3Sub> ***The participants were*** *25 students in one of the EFL classroom in Indonesia.* {LJ37/19_S6}

<M3Pro> *A total of 256 Indonesian participant . . .* ***answered*** *a two-part questionnaire . . .* {LJ19/18_S2(end)}

<M3Mat> ***The object of the research was*** *7 years by Lukas Graham.* {LJ56/19_S10}

In M3Meth (LJ15/18_S3), the sentence provided information about the data of the study. It was signalized by the phrase *the data*. The verb phrase *were analyzed by using . . .* was used to explicitly describe the technique of analyzing the data, namely paired sample and independent sample t-test. The occurrence of M3Sub in LJ37/19_S6 clearly showed that the author described the participants by using the sentence *the participants were . . .* Subsequently, the active verb *answered* in LJ19/18_S2(end) implied an action done by the subject. This indicated the occurrence of M3Pro by reporting what the subject of the study did (Pho, 2013). The last example in LJ56/19_S10 indicated the

occurrence of M3Mat. Here, the author used the sentence *The object of the research was . . .* to describe the object of the study, namely the song entitled 7 Years by Lukas Graham. In this case, the object of the study was explicitly stated by the author.

Move 4, namely *Results/ Findings*, was used by 51 authors. The example of the occurrences of Move 4 is as follows.

<M4R> ***The results showed that, first,*** *the participants had awareness of languages in their repertoire,* ***namely*** *. . .* ***Second,*** *. . .* ***Thirdly,*** *. . .* {LJ43/20_S6;S7;S8}

In LJ43/20_S6;S7;S8, the author tried to report the results of the study from general to specific aspects. It was indicated by the adverb *namely* (Swales & Feak, 2009). In this example, the occurrence of M4R was realized in three sentences. The phrase *the results* here clearly indicated that the authors intended to report the results of their investigation. Afterward, the evaluative *that* clause here was used by the authors to emphasize the findings and thus make it more certain (Hyland & Tse, 2005). The reporting verbs, such as *reveal, show,* and *suggest,* were often used as the signals of reporting the findings of the study (Pho, 2013).

Move 5, namely *Discussion/ Conclusion/Implications/Recommendations*, was used by 1 author employing M5Dis (3%), 12 authors employing M5Con (35%), 19 authors employing M5Imp (56%), and 6 authors employing M5Rec (18%). This indicated that M5Con, M5Imp, and M5Rec were typical. M5Imp was the most commonly-used move by the authors when closing their abstracts. The examples of the occurrences of Move 5 are as follows.

<M5Imp> ***It is hoped that*** *the research gaps identified in these studies and* ***future research implications*** *provided can shed light on future research in similar areas.* {LJ60/20_S8}

<M5Con> ***It was concluded that*** *the students perceived the importance of the use of correct grammar . . .* {LJ36/19_S8}

<M5Rec> *Regarding some grammatical mistakes in students' explanation texts,* ***it is recommended that*** *teacher give explicit teaching and more exercises . . .* {LJ36/19_S9}

<M5Dis> *. . . having quality teachers who can think and teach in an interdisciplinary manner* ***can be very strategic*** *. . .* {LJ38/19_S6}

The three examples, namely LJ60/20_S8, LJ36/19_S8, and LJ36/19_S9, clearly showed the occurrences of M5Imp, M5Con, and M5Rec respectively. It was signalized by the lexicon *implications, concluded,* and *recommended.* Regarding M5Dis, it was found that only one author used this move in his abstract. The authors tended to give implications or draw conclusions rather than discussing the results to close their abstracts. That is why M5Dis was not typical.

Further analyses on the rhetorical moves indicated that there were some embedded moves found in this journal. The examples of embedded moves are as follows.

<M2P> <M3Meth>*This Classroom Action Research*</M3Meth> ***aimed at*** *investigating . . .* </M2P> {LJ7/18_S1}

<M2Pr> ***This study*** **explored** the learners' perception on the use of direct transmission and scaffolding in the EFL classroom <M3Meth>***through*** *a semi-structured interview.* </M3Meth> </M2Pr> {LJ28/19_S1}

<M4R> <M3Meth> ***By employing*** *a researcher-made questionnaire as a primary tool for obtaining data and applying appropriate statistical tools,*</M3Meth> ***the study revealed that*** *the respondents utilized the ideational language metafunction . . .* </M4R> {LJ31/19_S4}

In the examples, the embedded move occurred in Move 3. In LJ7/18_S1, the Move 3 *Method* (M3Meth) *This Classroom Action Research* was placed within the Move 2 *Purpose* (M2P). Both moves were overlapped each other within a sentence. It was also similar to LJ28/29_S1. The prepositional phrase *through a semi-structured interview* refers to M3Meth was placed within the M2Pr *"This study explored the learners' perception on"*. However, in LJ31/19_S4, the M3Meth was integrated with M4R. For such cases, the embedded move cannot be really separated from each other. In other words, one sentence expressed two functions simultaneously.

Based on the analysis, it was found that there were two kinds of embedded move, namely Move 3 embedded in Move 2 and Move 3 embedded in Move 4. This resonates Pho's (2013) findings which suggest that the *Describing the methodology (DTM)* was the most move embedding either in *Presenting the research (PTR)* move or *Summarizing the findings (STF)* move. It occurred due to the flexible nature of the realization of Move 3 (p. 238)

Table 3. The most frequent move pattern in *LLT Journal*

NO.	MOVE PATTERN	N
1	M1-M2-M3-M4-M5	10
2	M1-M2-M3-M4	9
3	M2-M3-M4-M5	7
4	M2-M3-M4	5
5	M1-M2-M3-M5	3

As seen in Table 3, the highest frequency of the move pattern of the abstracts is the five-move model and the four-move model. The five-move model, the pattern of which was M1-M2-M3-M4-M5, appeared 10 times, while the four-move model, the pattern of which was M1-M2-M3-M4, appeared 9 times in the journal. This indicated that *LLT Journal* strictly followed the five-move model proposed by Swales and Feak (2009). These findings were consistent with Hafidzoh & Hardjanto's (2019) findings which stated that the five-move model and four-move model were the common discourse patterns of abstracts in applied linguistics. The findings also implied that the authors of *LLT Journal* tended to use Move 1 for the opening sentence. Therefore, the authors adopted Type A, *starting with a real-world phenomenon or with standard practice* (Swales & Feak, 2009). Furthermore, the findings on the move pattern also supported the occurrences of rhetorical moves where Move 2, Move 3, and Move 4 were obligatory because those three moves appeared in the four most frequent move patterns. Table 4 shows the model for *LLT Journal* Research Article Abstracts.

Table 4. A model for *LLT Journal* research article abstracts

Move#	Typical Labels
Move 1 (conventional)	Background/ introduction/ situation
Move 2 (obligatory)	Present research/ purpose
Move 3 (obligatory)	Methods/ subjects/ procedures
Move 4 (obligatory)	Results/findings
Move 5 (optional)	Conclusion/ implications/ recommendations

Table 5. Typical rhetorical move occurrences in *System Journal*

MOVE CODE		N	%
M1 (n=35)	M1Bg	18	51%
	M1Int	15	43%
	M1Sit	17	48%
M2 (n=57)	M2Pr	49	86%
	M2P	17	30%
M3 (n=52)	M3Meth	38	73%
	M3Mat	3	6%
	M3Sub	8	15%
	M3Pro	19	36%
M4 (n=53)	M4R	53	100%
M5 (n=46)	M5Dis	11	24%
	M5Con	13	28%
	M5Imp	23	50%
	M5Rec	12	26%

RA Abstract Moves in System Journal

As in Table 5, Move 1 was occupied by 18 authors employing M1Bg (51%), 15 authors employing M1Int (43%), and 17 authors employing M1Sit (48%). There was no significant difference in the occurrences of M1Bg, M1Int, and M1Sit. This indicated that the authors were familiar with those three moves. Hence, they were typical moves. The examples of the occurrences of Move 1 are as follows.

<M1Bg> *Traditionally, in the educational sphere,* ***more importance has been given to*** *text rather than to other semiotic modes . . . In medicine, the visual becomes* ***vital*** *. . .* {SJ12/18_S2;S3}

<M1Int> Metadiscourse markers ***refer to*** aspects of text organisation or indicate . . . {SJ33/19_S1}

<M1Sit> ***Although*** *various studies on . . . have provided insights into aspects of their identity, agency, and emotions,* ***a paucity of research exists*** *that elucidates the evolving beliefs of post-tertiary learners . . .* {SJ57/20_S1}

The occurrence of M1Bg (SJ12/18_S2;S3) showed that the authors tried to build territory to assure readers that the topic was worth investigating. Here, the sentence *more importance has been given to . . .* was used to indicate that the field became the main concern. The lexicon *vital* explicitly showed that the topic was important and it thus promoted the research itself (Hyland, 2004). In M1Int (SJ33/19_S1), the authors generalized the topic by clarifying the definition of certain terms used in the study. Here, the phrase *refer to* was used to describe the details of specific key terms used in this study (Wannaruk & Amnuai, 2015). Many authors occupied M1Sit after defining specific terms when opening their abstracts. They elaborated the gap that the research would fulfil as in SJ57/20_S1. Here, the sentence *a paucity of research exists* was used to indicate that the research on beliefs of post-tertiary learners was still limited. The use of negative devices, such as *no prior study, only a small, relatively* and *little,* and contradiction connectors, such as *however, but, although,* and *despite,* were employed by the authors to indicate a gap from previous studies (Amnuai, 2019).

Move 2, namely *Present research/ Purpose*, was occupied by 49 authors and 17 authors employing M2Pr (86%) and M2P (30%) respectively. Although M2P had a lower frequency than M2Pr, it can be considered as typical because 17 authors occupied M2P, resulting in both M2Pr and M2P being typical. Thus, the authors of *System Journal* did not lack knowledge in realizing Move 2. The examples of the occurrences of Move 2 are as follows.

<M2Pr> ***This paper comprises two parts.*** *First,* ***it reports on*** *. . . and . . .* {SJ9/18_S1;S2}

<M2P> ***In essence, our intention is to provide an answer to the question,*** *What factors influence the beliefs of tertiary language learners after they graduate?* {SJ57/20_S2}

The occurrence of M2Pr (SJ9/18_S1;S2) showed that the authors outlined the structure of the paper to present the research. It was signalized by the use of the sentence *this paper comprises two parts.* Following that, the reporting verb *reports* used to describe the present research. In SJ57/20_S2, the authors directly mentioned the research question of the study. Here, the phrase *our intention* seemed to be an indirect way of saying *the aim.* Since the research question also implied the objective of the study, SJ57/20_S2 was coded as M2P.

Move 3, namely *Methods/ Materials/ Subject/Procedure*, was occupied by 38 authors employing M3Meth (73%), 3 authors employing M3Mat (6%), 8 authors employing M3Sub (15%), and 19 authors M3Pro (36%). This showed that only a few authors mentioned the object or subject of the study. As a result, M3Mat and M3Sub were not typical while M3Meth and M3Pro were typical. One possible explanation for the low frequency of M3Mat is that the authors considered that M3Meth, M3Sub, and M3Pro were more important than M3Mat. The examples of the occurrences of Move 3 are as follows.

<M3Meth> *As the first part of a larger study, measures of the big five personality traits . . . and two types of stressors . . .* ***were gathered via*** *eMoodie . . .*{SJ29/19_S4}

<M3Pro> *The noun modifiers in Biber et al.'s (2011) index* ***were then extracted*** *with a computational program . . .* {SJ38/19_S3)

<M3Sub> *Twenty college CFL students at three proficiency levels* ***participated*** *in two rounds of interviews . . .* {SJ47/20_S2}

<M3Mat> ***Data for the present study is drawn from*** *Language LINC, a corpus of telecollaborative eTandem interactions.* {SJ8/18_P2/S1}

The occurrence of M3Meth (SJ29/19_S4) showed that the authors tried to describe the data collection technique. The phrase *were gathered via* was employed to describe the tools used to collect the data of the study. In SJ38/19_S3, the verb phrase *were then extracted* indicated an action done in the study. Here, the subject referring to the research object, which in this case *The noun modifiers,* was followed by what was done to the object of the study. Most sentences of this typical move were signalized by the use of past tense. It was because this move described the action that had been done in the study (Pho, 2013). Thus, SJ38/19_S3 occupied M3Pro. For M3Sub, the occurrence can be seen in SJ47/20_S2. Here, the lexicon *participated* clearly signalized the subject of the study. Regarding M3Mat (SJ8/18_P2/S1), the sentence *Data for the present study is drawn from . . .* indicated the source of data which at the same time was the object of the study.

The authors of *System Journal* seemed to be more detailed in presenting the results of their research. The example on the occurrence of Move 4 is as follows.

<M4R> ***Results showed*** *high gains for . . .* ***Equal gains between trained and untrained items demonstrated that*** *participants had indeed inferred grammar rules . . .* {SJ58/20_S6;S7}

The example shows that the authors directly reported the results of the study. It was signalized by the sentence *results showed.* Moreover, the presence of the noun phrase, *Equal gains between trained and untrained items ... ,* which occurred before the reporting verb *demonstrated*, indicated the specific result. Hence, SJ58/20_S6;S7 occupied M4R.

Move 5, namely *Discussion/ Conclusion/Implications/Recommendations*, was occupied by 11 authors employing M5Dis (24%), 13 authors employing M5Con (28%), 23 authors employing M5Imp (50%), and 12 authors employing M5Rec (26%). The high occurrence of M5Imp indicated that most authors closed their abstract by giving implications or contributions of the study, while the frequency of M5Dis, M5Con, and M5Rec indicated that some authors were aware of the realization of Move 5. For that reason, M5Imp, M5Dis, M5Con, and M5Rec were typical in *System Journal*. The following are some examples of the occurrences of Move 5.

<M5Imp> ***Pedagogical implications for*** *high school EFL textbook writers, program managers, and teachers* ***are discussed.*** {SJ55/20_S7}

<M5Con> ***In sum, this study confirms that*** *storybooks and subtitled videos are appropriate materials to engage students with reading . . .* {SJ24/19_S7}

<M5Rec> *In addition,* ***we advise that*** *L2 article patterns might appear grammatical . . .* ***We also suggest*** *further topics for research in L2 acquisition of the noun phrase.*{SJ11/18_S9;S10}

<M5Dis> ***These results are discussed in relation to*** *the relevant previous literature and should continue the discussion on . . .* {SJ42/20_S7}

The occurrence of M5Imp (SJ55/20_S7) clearly shows that the authors drew implications of the study, indicated by the phrase *pedagogical implications*. Furthermore, the phrase *are discussed* here makes the sentence a passive voice. It makes the information become more objective, academic, and less personal (Amnuai, Kotuta, & Duangprasertchai, 2020; Malmir, Khany, & Aliakbari, 2019). In SJ24/19_S7, the sentence *In sum, this study confirms that* was used to conclude the results of the study. Here, the phrase *in* sum was used to summarize the results and the lexicon *confirms* was used to state that something was proved true. Simply, the sentence implied that it was true that storybooks and subtitled videos were appropriate materials to engage students, showing the occurrence of M5Con. The sentence *we advise that . . .* and *we also suggest . . .* in SJ11/18_S9;S10 signalizes the occurrence of M5Rec, indicating suggestions for future research in the same field. The last example shows that the occurrence of M5D was signalized by the sentence *These results are discussed.* It clearly indicated that discussion was carried out by comparing the results with previous studies.

The following are some examples of the embedded moves found in *System Journal*.

<M2Pr> *This article* ***presents*** *<M3Meth> an interview-based case study* </M3Meth> *of a language teacher agency from social justice, queer, and ecological perspectives. </M2Pr>* {SJ17/18_S1}

<M3Meth**>** ***We use*** *Pantić's (2015) model of teacher agency for social justice* <M2P> ***to investigate*** *four aspects (i.e., "sense of purpose," "competence," "autonomy," "reflexivity") of Jackson's agency, a queer language teacher. </M2P></M3Meth>* {SJ17/18_S2}

<M4R> <M3Meth> *The narrative analysis of one teacher's interview accounts* </M3Meth> ***demonstrates*** *how this teacher circumnavigated the constraints of a native-speaker ideology by making use of the affordances of the notion of plurilingualism, as defined by the Common European Framework of Reference for Languages, as a conceptual resource to rearticulate an identity as a different kind French language teacher.* </M4R> {SJ20/18_S2)}

The occurrence of M2Pr and M3Meth in SJ17/18_S indicated that Move 3 was embedded in Move 2. The lexicon *presents* indicated what the study was about, while the phrase *an interview-based case study* signalized the use of Move 3. To be specific, the author added the information about the type of study while presenting what the present study was about. Conversely, the occurrence of M3Meth and M2P in SJ17/18_S2 indicated that Move 2 was embedded in Move 3. Here, the author first described the framework of the study by using the sentence *we use . . .,* then stating the purpose of the study by using the phrase *to investigate . . .* The next finding was *Move 3 embedded in Move 4*. In this case, the reporting verb *demonstrates,* which stands as the main verb, was used to report the results of the study. The noun phrase *The narrative analysis of one teacher's interview accounts* indicated the methodology of the study. Therefore, the author mentioned the method of the study while at the same time reporting the results of the study. One possible explanation for the embedded move was due to the condense nature of the abstract (Pho, 2013).

Table 6. The most frequent move pattern in *System Journal*

NO.	MOVE PATTERN	N
1	M2-M3-M4-M5	11
2	M1-M2-M3-M4-M5	8
3	M2-M3-M4	6
4	M1-M2-M3-M5	4
5	M1-M2-M4-M5	4

Regarding the move sequences, as in Table 6, the five most frequent move pattern in *System Journal* was the four-move model, five-move model and three-move model. The four-move model with M2-M3-M4-M5 pattern was the most frequent because it occurred in 11 RAAs. This implied that some authors in *System Journal* considered *Move 1 Background/ Introduction/Situation* to be less important. The second place was the five-move model with M1-M2-M3-M4-M5 pattern. This showed that eight authors strictly followed Swales and Feak's five-move model. The model for *System Journal* is shown in Table 7.

Table 7. A model for *System Journal* research article abstracts

Move #	**Typical Labels**
Move 1 (optional)	Background/ introduction/ situation
Move 2 (obligatory)	Present research/ purpose
Move 3 (obligatory)	Methods/ procedures
Move 4 (obligatory)	Results/findings
Move 5 (conventional)	Discussion/ conclusion/ implications/ recommendations

Conclusions

The present study shows that there were four distinctions found regarding the rhetorical moves of RA abstracts in *LLT Journal* and *System Journal*. The first distinction was the move occurrences, particularly the conventional and optional move. Both Move 1 and Move 5 were conventional and optional respectively in *LLT Journal* and vice versa in *System Journal*. The second distinction was the non-typical moves, namely *Move 3 Materials* (M3Mat) and *Move 5 Discussion* (M5Dis) in *LLT Journal* and *Move 3 Materials* (M3Mat) and *Move 3 Subjects* (M3Sub) in *System Journal*. The third distinction was the embedded move in which *Move 2 embedded in Move 3* was found in *System Journal* and was missing in *LLT Journal*. The last distinction was in the move pattern. The most frequent move pattern in *LLT Journal* was the five-move model (M1-M2-M3-M4-M5) pattern and that in *System Journal* was the four-move model (M2-M3-M4-M5).

The researchers suggest that Swales and Feak's (2009) five-move model be used either by L1 or L2 writers as the guideline to write a RA abstract. This model provides five steps along with the typical labels which can help the authors to write a well-constructed RA abstract. Since this study only focuses on the rhetorical moves, future researchers can further investigate the lexical and syntactical signals of each rhetorical move.

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Конфликты интересов: у автора нет конфликта интересов для декларации.

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