

A Move Analysis of Abstracts in a Scopus-indexed Applied Linguistics Journal from Different Quartiles

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Abstract - The competitive nature of today's science leads to the upsurge of publication in scientific journals. Publishing in an international journal with a reputable index such as Scopus, in particular, has gained a significant emphasis. Despite this fact, studies on the rhetorical organization of the abstract section of a research article (RA) through the perspective of Scopus journal quartiles remain scant. Driven by the gap in literature, this study aims to examine whether journal's quartile affects the rhetorical organization and linguistic realizations of the abstracts. A corpus of 40 RA abstracts was obtained from one Scopus-indexed applied linguistics journal, which over the years, had improvements in terms of its quartiles. The abstracts were divided into three groups: each representing different quartiles of the journal (i.e., Q2, Q3, Q4). Employing a comparative approach using both qualitative and quantitative research methods, Hyland's (2000) model of rhetorical organization was employed as the main framework to code the rhetorical moves, whereas a statistical analysis (i.e., Z-test) was performed on the moves and steps' occurrences. The findings showed that there is a significant difference in the steps' occurrence and tense realization between the groups, indicating that to some extent, the journal's quartile indeed played a role. The study offers recommendations for further research.

Keywords: Academic publication; research articles; applied linguistic abstracts; Scopus journal quartile; rhetorical organization; linguistic realization, move analysis

I. INTRODUCTION

Publication has taken hold of academics' professional lives worldwide. Academic publication, in specific, is the means in which academics communicate newfound knowledge to other members of the academic communities (Martin, 2003; Yoon & Casal, 2020). More than ever before, there seems to be an increasing need for academics to conduct, publish, and promote their research, this is partly due to modern science's competitive nature (Berkenkotter & Huckin, 2016). Furthermore,

material benefits and career advancements are also significant forces of academic publishing, specifically publishing in scientific journals (Hyland, 2019). However, there is a particular emphasis for researchers to publish their manuscripts at prestigious international journals with reputable indexes (e.g., Scopus and Web of Science) (El-Dakhs, 2018).

In connection with the expansion of academic publication, research articles (hereafter RA) became the primary vehicle used for knowledge dissemination. RA, then, is

regarded as "the commonest genre of academic performance" (Kaya & Yagiz, 2020). Consequently, RAs became the pronounced genre of the academy (Hyland, 2009; Candarh, 2012). However, there is one particular sub-genre of an RA that has been receiving increasing attention, namely the abstract. The communicative purpose of an RA abstract is to give the readers an overview of an article and serves as an assistant to help the readers decide whether the article is to their relevance or vice versa (Zibalas & Šinkūnienė, 2019). In brief, RA abstracts encapsulate the article's essence which proceeds it (Hartley, 2003). Furthermore, an abstract is usually the first part that is required for initial consideration prior to the whole submission of an RA manuscript (Saeew & Tangkiengsirisin, 2014). Consequently, the abstract is progressively considered as a crucial part of an RA (Tseng, 2011; Pho, 2008).

Despite the increasingly emphasized role of an RA abstract, writing a high-quality abstract is proven to be a challenge for novice writers (Can et al., 2016), especially when the writing must be in accordance with the target journal's expectations (Suntara & Usaha, 2013). According to Kurniawan et al., (2019), such difficulty is reinforced by the diversity of the circulating abstracts' templates. Additionally, another contributing factor to the difficulty is a limited vocabulary repertoire (Nakamaru, 2010). According to Pratiwi & Kurniawan (2021), one of the keys that can help in constructing a high-quality abstract is by having adequate knowledge of the genre.

Like any other type of academic writing, abstract is considered a genre on its own. In other words, abstract writing has its own structure that the discourse community generally accepts (San & Tan, 2012). Similarly, Ali & Sahawneh (2011) also notes that "the abstract is

a distinct and independent discourse genre of an associated text" (p. 8). Any type of independent genre has distinct communicative purposes, and these communicative purposes are realized in the genre's rhetorical move organization. The notion of "rhetorical move" was first put forward by Swales in the 1980s who conducted research on the introduction section of RAs (which is also an independent genre) and discovered that it contains a regular pattern of "moves" and "steps" (San & Tan, 2012). In a similar light, Huang (2018) also stated that the rhetorical organization of any particular genre is made up of a set of moves. A "move" is defined as a 'functional term' which refers to a specific communicative function within a whole text (Lorés, 2004), and it may contain sub-communicative elements known as "steps" which are smaller constituents that help realize the move's communicative purposes (Kurniawan & Sabila, 2021). Additionally, in the realization of the moves, certain linguistic features are also utilized (e.g., verb tense and voice).

The rhetorical move organization and linguistic features of RA abstracts, then, are two elements which are of significant importance in conveying the communicative purposes of an abstract. In the effort of deciphering the structure of abstracts and assisting novice writers in constructing a well-structured abstract, numerous researchers have conducted studies by using the genre analysis approach. Essentially, genre analysis is an approach which attempts to unravel the characteristic features of a particular genre (Bhatia, 1997). As a result, a number of researchers have managed to propose frameworks pertaining to the rhetorical move organization of an RA abstract. The table below displays some of the most notable rhetorical frameworks for RAAs:

Table 1. Rhetorical move frameworks of RAAs

Swales (1990)	Bhatia (1993)	Hyland (2000)
Move 1: Introduction	Move 1: Purpose	Move 1: Introduction
Move 2: Method	Move 2: Methodology	Move 2: Purpose
Move 3: Results	Move 3: Results	Move 3: Method
Move 4: Discussion	Move 4: Discussion	Move 4: Product
		Move 5: Conclusion

As can be seen in Table 1, both Swales (1990) and Bhatia (1993) proposed a 4-move framework, whereas Hyland (2000) proposed a 5-move framework. The first framework proposed by Swales (1990) consists of 4 moves,

which include: (1) *introduction*, (2) *method*, (3) *results*, and (4) *discussion*. Bhatia (1993), on the other hand, divided the abstracts into 4 moves, namely, *purpose*, *methodology*, *results*, and *discussion*. Based on the analysis of abstracts

from multiple disciplines, Hyland suggested a five-move model, that is, *introduction*, *purpose*, *method*, *product*, and *conclusion*. Furthermore, aside from focusing on an abstract's rhetorical structure, a trend of studying the linguistic features of RA abstracts in particular is progressively increasing (Amnuai, 2019). Other than having awareness regarding the rhetorical structure of an abstract, it is crucial for novice writers to be aware of the linguistic realizations of those rhetorical structure (Ventola, 1994) as they can directly affect the credibility of the researcher and have the ability to reinforce the rhetorical impact of the claims made by the researcher (Bloch, 2010). Therefore, the linguistic realizations of RA abstracts have also been comprehensively investigated over the years (e.g.; Huang, 2018; Pratiwi & Kurniawan, 2021; Pho, 2008; Tanko, 2017; Amnuai, 2019; Kurniawan et al., 2019).

In the field of Linguistics, studies on RA abstracts are steadily growing (Lorés, 2004), and subsequently, increased exponentially over the years (Tanko, 2017). However, despite the copious number of studies that have comprehensively discussed the rhetorical organization and linguistic features of RA abstracts, up to now, far too little attention has been paid to the influences a journal's quartile improvement may have on the rhetorical move organization and linguistic realization of RA abstracts. As have been previously mentioned, there is an increased demand for researchers to publish in reputable journals, namely Scopus-indexed journals. Hence, the significance of the topic is increasingly evident. A related past study by Kurniawan et al. (2019) attempted to cover the area of quartile differences by analyzing a total of 28 RAAs from four Scopus-indexed journals with different quartiles. The study revealed that journal quartile does not necessarily affect the manifestation of the moves and steps' saliences, however, it does play a role in terms of the moves' patterns and linguistic realizations. Furthermore, it is important to note that the previous study was conducted across several journals, whereas a study which specifically focused on quartile differences within one journal has not yet been conducted.

Raised by the concerns mentioned before, the present study set out to examine whether journal's quartile affects the rhetorical organization and linguistic realizations of the abstracts. In addition, this study is expected to contribute to a deeper understanding on the

manifestations of rhetorical organization of applied linguistics abstracts which represent three distinct Scopus journal quartiles, namely Q2, Q3, and Q4. In particular, this study will examine two main research questions, namely how is the manifestation of rhetorical move organization across three groups of abstracts which represent three different Scopus journal quartiles (Q2, Q3, Q4)? And how is the linguistic realization of the rhetorical moves?

By addressing these research questions, the present study seeks to assess the extent to which journal's quartiles may influence the manifestation of the abstracts' rhetorical moves and linguistic features. The rhetorical move aspect includes the moves and steps' occurrences and saliences, whereas the linguistic feature aspect includes the tenses and voices realization of the abstracts.

II. METHOD

The qualitative method is one of the most common methods used in studies pertaining to genre analysis (e.g., Kurniawan et al., 2019; Pratiwi & Kurniawan, 2021; Kanafani et al., 2021; Harisbaya et al., 2021). However, the present study adopted a comparative approach using both quantitative and qualitative research methods since it aims to examine the rhetorical organization and linguistic features between three groups of RA abstracts which represent different Scopus quartiles (i.e., Q2, Q3, Q4) within one applied linguistics journal. The qualitative method was employed to determine and code the rhetorical moves and linguistic realization of the abstracts, whereas the quantitative method was employed to perform a statistical analysis (i.e., Z-test) on the moves and steps' occurrences. The findings of the analysis are presented in the form of tables, excerpts, and further elaborations. The data of the present study consisted of 40 RA abstracts taken from one Scopus-indexed journal in the field of applied linguistics: *Indonesian Journal of Applied Linguistics (IJAL)*. This particular journal was chosen due to its prominence as the only Applied Linguistics journal in Indonesia which was indexed by Scopus. As can be seen in Table 2, the publication year of the selected abstracts varied between 2013 and 2021. Furthermore, the journal index exponentially improved as time progressed. In 2013, the journal occupied the Q4 rank, in 2014-2016, it occupied the Q3 rank, and in 2017-current time, it occupied the Q2 rank. The obtained RA

abstracts are classified into three groups, each representing different Scopus quartiles: Q2, Q3, Q4, taken from the year corresponding to the

journal's quartiles. The table below displays the classification of the corpus:

Table 2. Classification of the corpus

The corpus	Number of abstracts (n)	Period of journal indexation
Group Q2	15	2017-2021
Group Q3	15	2014-2016
Group Q4	10	2013

Additionally, as shown in the table above, the group of abstracts which represents the Q1 is not included, because up until this paper was written, the chosen journal has only occupied Q2, Q3, and Q4 ranks. Although the number of abstracts in each group is limited, the study should be able to provide some useful insights regarding the rhetorical manifestations of each group.

III. RESULTS AND DISCUSSION

3.1 The manifestation of rhetorical move organization across three groups of abstracts which represent three different Scopus journal quartiles (Q2, Q3, Q4)

This section of the research presents the results of the rhetorical move analysis, and it attempts to answer the first research question. In the discussion which proceeds, the move and step are frequently represented by the letter M followed by the move number (e.g., M1) and the letter S followed by the step number (e.g., S1).

Moves and Steps' Occurrences

Table 4. Move occurrences across three groups of abstracts

Move	Q2	Q3	Q4	Z-score		P-value			
				Q2 & Q3	Q2 & Q4	Q3 & Q4	Q2 & Q3	Q2 & Q4	Q3 & Q4
1	27%	18%	21%	1.76	1.17	-0.48	0.08	0.24	0.63
2	15%	15%	19%	0	-0.80	-0.80	1.00	0.42	0.42
3	27%	26%	26%	0.28	0.31	0.06	0.78	0.76	0.95
4	23%	34%	26%	-1.92	-0.45	1.25	0.054	0.65	0.21
5	8%	8%	9%	0	-0.44	-0.44	1.00	0.66	0.66

This subsection discusses the moves and steps' occurrences across three groups of abstracts. The analysis revealed that from a total of 40 abstracts, 348 moves were found, which encompasses 131 moves from the Q2 group, 131 moves from the Q3 group, and 86 moves from the Q4 group. Table 4 displays an overview of each group's move occurrences which are expressed in percentages. Additionally, a statistical analysis (Z-test) was performed in order to determine whether there is a significant difference in proportion of the moves and steps occurrences. For the test, the alpha was set at .05, with a 95% confidence interval.

As can be seen from Table 4, the occurrence of each move appeared to vary across the three groups. However, some notable

similarities can be observed. Move 5-Conclusion has the lowest number of occurrences, as it is the least used move compared to the other four moves in all three groups. This finding indicates that the authors are not necessarily focused on summarizing the findings and discussing the implications of the research. Following Move 5, Move 2-Purpose is the second least used move across the three groups, constituting 15%, 15%, and 19% of proportion respectively from each group. On the other hand, despite the differing proportions of Move 4-*Findings* across all groups, in total, Move 4 has the highest number of occurrences, which are then followed by M3 (79%) and M1 (66%).

Furthermore, the analysis revealed that there are no embedded moves found in the data.

Hence, this suggests that each sentence in all groups of abstracts contained only one move. From the data, it is observable that the biggest gap in proportion is as much as 11%, which can be found in Move 4 between the Q2 and Q3 group. Whereas the smallest gap in proportion is as little as 1%, which can be seen in Move 5 between the Q3 and Q4 group. Additionally, the 1% gap of difference can also be found in Move 3 between the Q2 and Q3 group, and the Q2 and Q4 group. Interestingly, despite a relatively high gap in proportion (11%), the results of the statistical test disclosed that no significant differences were found between the move occurrences across the three groups of abstracts ($-1.96 < Z < 1.96$; $p > 0.05$). This suggests that the H_0 (null hypothesis) is accepted, whereas the H_1 (alternative hypothesis) is rejected.

These results reflect those of [Pratiwi and Kurniawan \(2021\)](#), and [Harisbaya et al. \(2021\)](#) who also found that M5 and M2 were two of the least used moves, while M4 was one of the most used moves along with M3 and M1. However, in specific, the high occurrence of M4 was in line with that of Suntara and Usaha (2013) who conducted a study on move occurrence of applied linguistics abstracts. Whereas the low occurrence of M5 coincides with [Hyland's \(2000\)](#) findings which revealed that providing a conclusion is indeed optional. All in all, considering that there is not found any notable differences on the move occurrence between the groups, it seems reasonable to imply that there appears to be a common understanding between the authors to put more emphasis on M3 and M4 compared to the rest of the moves, namely M1, M2, and M5.

Table 5. Step occurrences across three groups of abstracts

Move	Step	Q2	Q3	Q4	Z-score		P-value			
					Q2 & Q3	Q2 & Q4	Q3 & Q4	Q2 & Q3	Q2 & Q4	Q3 & Q4
1	1	19%	29%	11%	-0.87	0.77	1.41	0.38	0.44	0.16
	2	64%	63%	78%	0.11	-1.04	-1.06	0.91	0.30	0.29
	3	0%	0%	11%	-	-2.04	-1.67	-	0.04	0.09
	4	17%	8%	0%	0.93	1.84	1.25	0.35	0.07	0.21
N/A										
3	1*	22%	32%	14%	-0.95	0.81	1.58	0.34	0.42	0.11
	1	22%	21%	23%	0.17	-0.04	-0.19	0.87	0.96	0.85
	2	22%	21%	27%	0.17	-0.44	-0.58	0.87	0.66	0.56
	3	33%	26%	36%	0.63	-0.24	-0.79	0.53	0.81	0.43
N/A										
5	1	40%	30%	38%	0.47	0.11	-0.34	0.64	0.91	0.74
	2	30%	10%	13%	1.12	0.89	-0.17	0.26	0.37	0.87
	3	0%	0%	0%	-	-	-	-	-	-
	4	30%	60%	50%	-1.35	-0.86	0.42	0.18	0.39	0.67

If we now turn to the discussion of step occurrences, based on Hyland's (2000) schema of rhetorical move, Move 2 and Move 4 do not constitute any steps. Therefore, in regards to the manifestation of steps, only Move 1, Move 3, and Move 5 were further analyzed. Overall, there were 198 steps. There were respectively 82 steps in the Q2 Group, 68 steps in the Q3 group, and 48 steps in the Q4 group. Table 5 presents the results obtained from the step occurrence analysis and the statistical proportion test.

Closer inspection of the table shows that there is a significant difference found in the manifestation of Step 3-Defining key terms of Move 1 between the Q2 and Q4 groups shown by the low p-value of 0.04, and a Z-score of -

2.04. This indicates that the H_1 (alternative hypothesis) is accepted, whereas the H_0 (null hypothesis) is rejected. Notably, all of the abstracts in the Q2 group did not manifest the S3-M1 (0%), whereas the Q4 group had 11% proportion of the step. The 11% gap between the two groups seems rather inconsequential, however, it is proven to be significant. Furthermore, as can be seen in Table 5, the Q3 group also did not manifest the S3-M1 just like the Q2 group, yet it is not classified as significant. This discrepancy can be explained by the fact that the total number of steps contained in the Q3 group is different to that of the Q2 group, thus influencing the statistical calculation and result. All in all, some notable

similarities of the step manifestations can be seen from the table. Across all groups, the S3-M1 occurred the least. Meanwhile, Step 3-*Stating limitations* of Move 5 was not manifested at all. In addition, Step 2-*Making topic generalization* of Move 1 occurred the most across the three groups (64%, 63%, and 78% respectively).

Two out of the three previously-mentioned results are consistent with those of Pratiwi and Kurniawan (2021) who revealed that S3-M1 was the least manifested step, whereas S3-M5 was not manifested. The ensuing excerpts present the manifestation of S3-M1 and S2-M1 found in the data:

Excerpt 2.

A lesson plan, as Farrell (2002) stated, is a collection or a summary of a teacher's thoughts about what will be covered during a lesson. [Q4 Group, RAA 6, Step 3, Move 1, Sentence 2]

Excerpt 3.

In Indonesia, the law that regulates defamation case is not only the Criminal Code but also the Law of the Republic Indonesia Number 11 of 2008 on Information & Electronic Transactions (the ITE Law). [Q2 Group, RAA 1, Step 2, Move 1, Sentence 1]

Besides the notable similarities, a rather intriguing difference in the step occurrence is also evident. In the manifestation of S4-M1, there appeared to be a decrease in proportion from Q2-Q4 (17%, 8%, and 0% respectively). Such finding suggests that as the journal indexation improves, there seems to be an increasing manifestation of S4-*Identifying gap* of Move 1. This finding coincides with that of Kurniawan et al.'s (2019) who also found a similar pattern across journals of different Scopus quartiles (Q1, Q2, Q3, Q4).

Furthermore, it can be seen from the data in Table 5 that there is a relatively high gap in proportion (30%) on the manifestation of S3-M5 between the Q2 and Q3 groups. However, the results of the statistical analysis revealed that the rest of the steps' occurrences proportions are considered statistically insignificant. This finding indicates that the distribution of the manifested steps across the three groups of abstracts are more or less even, in other words, there are no significant differences between them. This claim is proven by the *p* values of the

rest of the step occurrences which are over 0.05, i.e., accepting the H_0 (null hypothesis) and rejecting the H_1 (alternative hypothesis).

Another interesting outcome from the analysis was the occurrence of embedded steps. In total, 8 cases of embedded steps are recorded from all three groups. There were respectively 3 cases of embedded steps in the Q2 group, 4 in the Q3 group, and 1 in the Q4 group. In particular, the embedded steps are all within Move 3. Embedded steps occur when one move is manifested by more than one step. In this study, there are found several combinations of steps: (1) Step 1* + Step 1, (2) Step 1 + Step 2, (3) Step 1* + Step 2, (4) Step 3 + Step 1, and (5) Step 3 + Step 2. The ensuing excerpts present the manifestation of the embedded steps:

Excerpt 4.

Adopting a mixed methods approach, it involved two hundred and fifty-one respondents through which questionnaires were distributed and completed. [Q2 Group, RAA 5, Step 1(2), Move 3, Sentence 4]

Excerpt 5.

Twelve senior high school teachers from different schools were assigned to complete a questionnaire about their readiness and competence to implement the 2013 curriculum and were observed in their teaching and learning process. [Q3 Group, RAA 5, Step 3(1), Move 3, Sentence 3]

A further interesting finding that emerged from the data was the discovery of a new step, which is labelled as Step 1* in Move 3 in Table 5. This new step was added to the lineup of M3's steps because its communicative function did not fit into any of Hyland's (2000) present move-step framework, namely, to state the research design. Moreover, this new step was adopted from Lubis and Kurniawan's (2020) synthesized coding scheme of RAA's rhetorical organization, with Hyland's (2000) model used as the foundation of the model. Looking at Table 5, it is apparent that the S1*-M3 was manifested in all three groups of abstracts. Also, the proportion of the said step reached up to 68% of occurrence in total, which suggests that this proposed new step deserves considerable acknowledgement in future studies on the rhetorical organization. The ensuing excerpt

presents the manifestation of S1*-M3 found in the data:

Excerpt 6.

A case study design was used to allow an in-depth analysis of the students' interpreting performance as the phenomenon described (Yin, 2003) using triangulation of data analysis. [Q3 Group, RAA 6, Step 1*, Move 3, Sentence 3]

Excerpt 7.

This descriptive-evaluative study used the design of embedded case study because the findings apply only to the imperative verses that serve as the

Moves and Steps' Saliences

Table 6. The salience of moves and steps across three groups of abstracts

Move	Q2	Q3	Q4	Step	Q2	Q3	Q4
1	87% (Con)	73% (Con)	70% (Con)	1	40% (Op)	33% (Op)	20% (Op)
				2	73% (Con)	53% (Op)	70% (Con)
				3	0% (Op)	0% (Op)	10% (Op)
				4	40% (Op)	13% (Op)	0% (Op)
2	100% (Ob)	93% (Con)	100% (Ob)	N/A			
				1*	53% (Op)	67% (Con)	30% (Op)
				1	40% (Op)	40% (Op)	50% (Op)
				2	47% (Op)	40% (Op)	30% (Op)
3	100% (Ob)	100% (Ob)	90% (Con)	3	53% (Op)	53% (Op)	60% (Con)
				N/A			
				1	27% (Op)	13% (Op)	30% (Op)
				2	20% (Op)	7% (Op)	10% (Op)
4	100% (Ob)	93% (Con)	80% (Con)	3	0% (Op)	0% (Op)	0% (Op)
				N/A			
				1	13% (Op)	40% (Op)	40% (Op)
				2	20% (Op)	7% (Op)	10% (Op)
5	60% (Con)	60% (Con)	60% (Con)	3	0% (Op)	0% (Op)	0% (Op)
				4	13% (Op)	40% (Op)	40% (Op)

The next subsection addresses the move-step salience across the three groups of abstracts. Table 6 presents an overview of each group's moves and steps' saliences which are expressed in percentages.

As shown in Table 6, all five moves occurred in the three groups. Move 1-*Introduction* is categorized as a conventional move across the three groups. A closer look at the data revealed that the percentage of M1's salience gradually increases as the journal's indexation improves. A similar pattern can be observed in Move 4-*Findings*. Such findings might suggest that along with the improvement of the journal's indexation, there is an increasing emphasis that the authors put on conveying the niche and the result of the research. Meanwhile, Move 2-*Purpose* achieved the obligatory status in two groups (Q2 & Q4), but was conventional in the Q3 group. Similarly, Move 3-*Methods* also achieved the obligatory status in two groups (Q2 & Q3), but was considered conventional in

research sample. [Q2 Group, RAA 7, Step 1*, Move 3, Sentence 5]

To date, discussions regarding the move-step occurrences are still limited. Previous studies on the rhetorical organization of abstracts are mainly concerned with the move salience, i.e., discussing the number of abstracts which employed a certain move (e.g., Amnuai, 2019; Vathanalaoha & Tangkiengsirisin, 2018; Hardjanto, 2017; Tanko, 2017; Al-Khasawneh; 2017; Wahyu, 2016; Tseng, 2011; Pho, 2008). Therefore, this analysis is expected to provide beneficial insights regarding the move-step occurrences, specifically through the lens of quartile differences.

the Q4 group. Interestingly, all groups had the same percentage of Move 5-*Conclusion* salience (60%), thus making the said move as conventional.

The outcomes of the study suggest that as the journal indexation increases, it demands a much more comprehensive employment of the moves, specifically the moves which communicate the research purpose, method, and the main findings. Such implication can be deduced from the information in Table 6, which showed that 3 out of 5 moves attained the obligatory status in the Q2 group, namely Move 2, Move 3, and Move 4. The obligatory status of Move 2, Move 3, and Move 4 is in accordance with the findings of Pho (2008), Chalak & Norouzi (2013), Tseng (2011), and Kafes (2012). Additionally, the previously-mentioned findings are partially in line with that of Santos (1996) who revealed that M2 and M3 obtained an obligatory status in the applied linguistics abstracts which he examined. Meanwhile, in the

Q3 and Q4 groups, only M3 and M2 obtained the obligatory status, respectively. Therefore, the obligatory status of these three moves in the Q2 group implies that the authors are progressively more aware about the significance of the moves and progressively leaning towards the accepted convention as the journal's indexation improves.

The next section of the findings was concerned with the steps salience. As displayed in Table 6, no step attained the obligatory status. Some steps in Move 1 and Move 3 obtained the conventional status, whereas the majority of the steps obtained the optional status. Across the groups, all the steps of Move 5 are categorized as optional (employed in <60% of the total number of abstracts).

A further inspection of the data in the said table reveals that S2-M1 obtained the conventional status in the Q2 and Q4 group, indicating that these two groups have a higher tendency in stating the generalization of the research compared to the Q3 group which obtained the optional status for the said step. On the other hand, the Q3 group shows an inclination to provide information regarding the research design compared to the other two groups. This is shown by the conventional status of S1*-M3 in the Q3 group, while in the Q2 and Q4 groups, the step obtained the optional status. Moreover, the Q4 group has a higher tendency in stating the procedure and context of the research, shown by S3-M3 which obtained the conventional status only in the Q4 group.

Besides the previously mentioned differences, overall, the data of the move salience across the three groups appear to be fairly similar.

In addition, what is interesting about the figures in this table is that there are some cases of inconsistency between the steps' salience and occurrence. For example, in Step 2 of Move 1, the proportion of the occurrence shows that the highest proportion is in the Q4 group, however, the salience shows that the Q2 group has the highest manifestation of the step. Such kind of inconsistencies can be found in a number of steps, indicating that the salience of the step does not necessarily correspond with the occurrence. This finding is in agreement with that of [Kurniawan et al. \(2019\)](#) who also found a similar discrepancy in their data.

The findings which showed that there is a considerably high number of RAs which employed Step 2-*Making topic generalization* of Move 1 and Step 3-*Describing procedure and context* of Move 3 are in line with [Kurniawan et al.'s \(2019\)](#) and [Putri et al.'s \(2020\)](#) findings which revealed that both steps have a relatively high number of occurrences.

3.2 The linguistic realizations of the rhetorical moves

This section of the research presents the results of the linguistic features analysis which include verb tense and voice. Furthermore, it attempts to answer the second research question. The results of the analysis are presented in Table 7, followed by further elaborations and excerpts.

Linguistic realizations

Table 7. Linguistic realizations across three groups of abstracts

Move	Tense			Voice		
	Q2	Q3	Q4	Q2	Q3	Q4
1	Pr (94%)	Pr (100%)	Pr (89%)	Ac (75%)	Ac (75%)	Ac (72%)
	Pa (6%)		Pa (6%)	Pa (25%)	Pa (25%)	Pa (28%)
			Ft (6%)			
2	Pr (74%)	Pr (84%)	Pr (88%)	Ac (89%)	Ac (58%)	Ac (88%)
	Pa (21%)	Pa (16%)	Pa (6%)	Pa (11%)	Pa (42%)	Pa (13%)
			Ft (5%)	Ft (6%)		
3	Pr (22%)	Pr (26%)	Pr (27%)	Ac (50%)	Ac (50%)	Ac (41%)
	Pa (78%)	Pa (74%)	Pa (73%)	Pa (50%)	Pa (50%)	Pa (59%)
4	Pr (47%)	Pr (55%)	Pr (73%)	Ac (83%)	Ac (80%)	Ac (86%)
	Pa (53%)	Pa (45%)	Pa (27%)	Pa (17%)	Pa (20%)	Pa (14%)
5	Pr (90%)	Pr (60%)	Pr (100%)	Ac (70%)	Ac (80%)	Ac (63%)
	Pa (10%)	Pa (40%)		Pa (30%)	Pa (20%)	Pa (38%)

Table 7 depicts the results of the analysis. In regards to the verb tense, it is further divided into three major groups, namely present tense,

past tense, and future tense. The present tense was the most employed tense in most of the moves, whereas the past tense was the second

most employed tense in the three groups. However, future tense is found to only occur in the Q2 and Q4 groups. As shown in Table 7, there are found some similarities and differences in the use of tenses. In the realization of Move 1, Move 2, and Move 5, present tense was dominantly used in all three groups, reaching >50% of occurrence in all groups. Meanwhile, Move 3 was dominantly realized using past tense in all groups (>50% in all groups). So far, the findings indicate that there is a conformity between the groups in employing the tense to realize certain moves. However, in the realization of M4, the Q3 and Q4 groups dominantly used present tense (>50% in both groups), whereas the Q2 group dominantly used past tense (53%), as shown in the excerpts below:

Excerpt 8.

The results show that, to some extent, PGA helps students develop writing skills of Report text specifically on the genre knowledge, writing process, and feedback from peers and teacher which was observed from the teaching process and schematic structures and linguistic features analysis. [Q3 Group, RAA 13, Move 4, Sentence 6]

Excerpt 9.

The findings demonstrated that, in the move level, most of the students' F&D sections had manifested the four moves, i.e., providing background information, reporting results, summarizing results, and commenting on results. [Q2 Group, RAA 3, Move 4, Sentence 9]

From the previously-mentioned findings, it appears that the only notable difference in the use of tenses was found in the realization of Move 4. However, several previous studies showed that the use of past tense in stating the findings, is in fact, a widely recognized convention (Santos, 1996; Tseng, 2011; Zhang, 2012; Al-Shujairi et al., 2016; Kosasih, 2018; Kurniawan et al., 2019; Pratiwi & Kurniawan, 2021). Meanwhile, the realization of M4 using present tense is in accordance with that of Pho (2008) and Wahyu (2016). The realization of M1, M2, and M5 using present tense, along with the realization of M3 and M4 using past tense is in line with a previous study conducted by Tseng (2011).

In regards to the voice realization, as can be seen in Table 7, active voice was the most frequently employed voice in all of the groups. Specifically, active voice was preferred by the authors across the three groups in realizing M1, M2, M4, and M5 (>50% of occurrences in all groups). Meanwhile, passive voice was preferred to realize M3 in the Q4 group. Interestingly, the ratio of present tense to past tense in the realization of M3 in the Q2 and Q3 groups are equal (50% respectively). The result which reported that the active voice is more frequently used in more moves than passive voice match those of Kanafani et al. (2021), Harisbaya et al. (2021), Gani et al. (2021), and Kurniawan & Sabila (2021).

In general, therefore, it seems that the improvement of the journal indexation has an influence in realizing the linguistic feature on Move 4-*Findings*, specifically in terms of verb tense. The explanation to this implication is the fact that the linguistic realizations of M1, M2, M3, and M5 in all the groups are more or less already conforming to the accepted convention, i.e., to use present tense for these moves. In the realization of M4, however, only the Q2 group used past tense. Therefore, this finding implies that there is an increase in awareness on the use of past tense to realize the findings, i.e., the authors are progressively advancing towards the generally accepted convention.

IV. CONCLUSION

Taken together, this study has shown that to a certain extent, the journal's quartile has some influences on the rhetorical organization and the linguistic realization of the abstracts. These influences are shown through a number of similarities and differences found from the analysis of the three groups of abstracts. This section summarizes two main points based on the guiding research questions.

With respect to the moves' occurrence, there are no significant differences found across three groups. On the other hand, in terms of the steps' occurrence, a significant difference was found in the manifestation of Step 3 of Move 1 (*Defining the key terms*) between the Q2 and Q4 groups, with Q4 leading the occurrence. The Q2 group contained more obligatory moves compared to the other two groups. The more comprehensive employment of the moves in the Q2 group reflects the authors' increased awareness regarding the significance of the moves. Meanwhile, no steps obtained the

obligatory status. Furthermore, in the analysis of the steps' occurrence, an extra sub-communicative move (step) was added to the lineup of Move 3's steps, labelled as Step 1*. This step was adopted from Lubis & Kurniawan's (2020) synthesized schema of rhetorical moves, which was based on Hyland's (2000) framework. In the present study, the step was found in a number of abstracts, thus indicating the prominence of the step.

In terms of the linguistic realization of the moves, there is an observable conformity between the three groups on the use of tenses and voices. However, a difference is found in the tense realization of M4. The Q3 and Q4 groups dominantly used present tense, whereas the Q2 group used past tense. According to related previous studies, the use of past tense in realizing M4 is very much the consensus. Hence, it can be inferred that the journal's quartile has an influence on the choice of tense in realizing Move 4.

Finally, despite the relatively small dataset, the findings reported here has provided a deeper insight into the growing body of research on the rhetorical organization and linguistic realizations of research article abstracts (RAAs), specifically through the lens of quartile differences. Information regarding the manifestation of RAAs from different quartiles is especially imperative for non-native writers in constructing abstracts more effectively. However, it is recommended that further research be undertaken by considering a larger corpus, and focus not only on sentence-level analysis, but also clause level in order to gain a more complete picture on the rhetorical organization and linguistic realization of RAAs from different quartiles.

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