



The authors' research gap strategies in ELT research article introductions: Does Scopus journal quartile matter?

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Abstract

Swales' (1990) Creating a Research Space (CARS) model has spawned a large number of studies focusing on investigations of research article introductions (RAIs), and the reports have given meaningful contributions to guide novice and non-native authors in writing English RAIs. However, the investigation of authors' research gap strategies in RAIs has so far received little attention. Also, the previous investigations do not account for the way such strategies are applied across the Scopus journal quartiles (i.e., Q1, Q2, Q3, & Q4). Therefore, this study is undertaken to investigate the research gap strategies used by authors who published their research articles (RAs) in Scopus-indexed journals. The strategies found were, then, compared seen from the Scopus journal quartile lens. Forty RAs from eight Scopus-indexed journals in the field of English Language Teaching (ELT) were randomly collected and analyzed using Swales' (1990) framework, taking into account the insights proposed by Lim (2012) and Kwan, Chan, and Lam (2012). The findings reveal that the authors use five research gap strategies to present their research gaps in their ELT RAIs. The comparative analysis shows that there are differences and similarities in using research gap strategies across the quartiles. The findings of this study can assist non-native and novice authors to achieve visibility worldwide by giving closer attention to how to present research gaps using several research gap strategies in RAIs.

Keywords: academic writing; research article; research article introduction; research gap strategy; Scopus-indexed journal

1. Introduction

Writing English research articles (RA) for publication has motivated researchers to understand their disciplines, communicate their knowledge, and obtain increased professional advancement (Behnam & Zamanian, 2013; Hyland, 2013; Robins & Kanowski, 2008). However, it can be a complex task for all non-native authors or novice authors (Curry & Lillis, 2004; Sheldon, 2011). Therefore, there should be guidelines for them, especially in writing and publishing their English RAs in international journals.

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Creating a Research Space (CARS) (Swales, 1990) has spawned several investigations of RAs that were published in international journals indexed by reputable databases (e.g., Scopus) by focusing on certain sections, such as abstract, introductions, methods, results, and discussion (AIMRaD). In social science disciplines, for instance, previous studies have dealt with some aspects in research article introductions (RAIs), such as authors' moves and steps (Afshar et al., 2018; Deveci, 2020; Farnia & Barati, 2017), justifications of research projects (Chen & Li, 2019), and quotations (Arsyad & Adila, 2018; Arsyad et al., 2016; Sirijanchuen & Gampper, 2018). However, although the investigations give meaningful insights particularly in improving the quality of authors' RAIs that can reach the expectation of international discourse communities (Sheldon, 2011), some previous studies indicate that authors still encounter problems in writing RAIs (Adnan, 2009; Arono & Arsyad, 2019; Arsyad et al., 2019; Wannaruk & Amnuai, 2015; Zainuddin & Shaari, 2017).

The introduction section of a RA has been admittedly claimed as the most rhetorically complex section (Irawati et al., 2017; Shibayama & Wang, 2020; Swales, 1990). In the section, authors are required to propose the newness of their studies. Although the moves and steps in RAIs have been thoroughly examined, very little attention so far has been paid to the authors' ways of presenting research gaps. According to Lim (2012), research gap strategies play important roles, especially to justify the position of a study being conducted. Besides, Chen and Li (2019) also indicate that research gap strategies can highlight the newness and significance of a study. Therefore, there is a need to investigate the strategies in presenting research gaps in the introduction section of RAs to help novice and non-native authors propose the novelty of their studies.

Recently, there is a growing significance of publishing RAs in journals indexed by Scopus (Kurniawan, 2019; Vit Machacek & Srholec, 2021). Scopus-indexed journals have received significant attention from national and international authors during the XXI century (Chinchilla-Rodríguez et al., 2015; Arencibia-Jorge & Moya-Anegón, 2010). Scopus can be claimed as the largest database for multidisciplinary research literature (Moya-Anegón et al., 2007), and it is a global scientometric academic database that has been considered as the qualified index for journal publications (Perig, 2018). It functions to quantitatively determine the response to publications, and it regularly reviews over 16.000 international peer-reviewed journals to maintain the quality of the journals (Ball & Tunger, 2006; Salisbury, 2009).

Journals that have been indexed by Scopus can be claimed as the leading journals (Ewijk, 2018). They are allocated to quartiles (Q). The quartiles of the journals can be accessed in the SCImago ranking journal (SJR) website (www.scimagojr.com) (Guerrero-Bote and Moya-Anegón, 2012). The Scopus journal quartile functions to recognize the quality of journals, and it ranges the journals from Q1 to Q4. The highest quartile (Q1) denotes the top 25% of the journal impact factor (JIF) distribution, and Q4 journals are located on the lowest 25% group according to JIF distribution (Garcia, Rodriguez-Sánchez, Fdez-Valdivia, & Martinez-Baena, 2012; Kurniawan, 2019). Thus, it can give fruitful and meaningful information if further genre-based investigations are focused more on how authors present their research gap strategies in their RAIs published in Scopus-indexed journals. This study may also shed some light on teachers, lecturers, and researchers, especially native and non-native authors about the use of types of research gap strategy across Scopus journal quartile.

1.1. Literature review

The investigations of RAIs have given insightful contributions to the advancement of knowledge, especially in writing convincing and impressive introductions. In applied linguistics, Mirahayuni (2002), who followed the analytical framework of Swales (1990), indicated that the forms and functions of rhetorical elements (i.e., moves & steps) that were applied by non-native authors were

still far from what international journals expect. She suggested non-native English authors acquire more knowledge especially in the application of the formal generic structure of introduction to gain a wider readership. Futasz (2006) who investigated the RAIs of undergraduate students also indicated that the rhetorical elements used by expert authors can be used as guidelines for students to organize the introduction section of their RAs.

Moreover, existing studies have recognized the importance of strategies in writing RAIs. Sheldon (2011) who investigated 54 applied linguistic RAIs found that native authors presented a greater number of strategies in proposing topics than non-native English authors. In a similar vein, Farnia and Barati (2017) also found that native authors in applied linguistics tended to use more strategies especially in proposing topics, identifying research niches, and announcing present works than non-native ones. However, the previous studies (i.e., Farnia & Barati, 2017; Sheldon, 2011) did not explain in detail especially how the authors present their research gaps. Consequently, their findings may not be optimally used to guide non-native and novice authors especially in presenting the newness of their studies in RAIs.

The rhetorical organizations of RAIs have been thoroughly investigated by previous researchers. However, little is known about how research gap strategies are applied by authors in the section. Lim (2012), who investigated research gap strategies on management RAIs, found four types of research gap strategy, namely highlighting the absence, stressing the insufficient research, revealing limitations, and contrasting conflicting previous research findings. In the same year, Kwan et al., (2012) who did not concern exclusively with research gap strategies indicated that suggesting solutions can be categorized as a research gap strategy used by Computer Science authors. Moreover, responding to a call by Lim (2012), Chen and Li (2019) conducted a genre investigation on 40 applied linguistics literature review sections written by Chinese postgraduate students. They found four research gap strategies used by the students in their literature review sections. The interesting point from their findings is that justifying the present study, which was not found in Lim's (2012), was used by the applied linguistics students to establish the niches in the literature review sections. Theoretically, justifying the present study is one of the steps in establishing a niche in RAI called positive justification, where authors convince their audience that their proposed topics are important to study, but it is not included as one of the ways to present research gaps in RAIs (Swales, 1990).

The genre investigation of RAIs in applied linguistics, specifically with an orientation to the field of ELT has received little attention so far (Rochma et al., 2020). Meanwhile, Nagy (2016) and Rahman et al., (2017) indicate that ELT is a prominent area among other diverse areas in applied linguistics that should also be investigated. The investigation of strategies in presenting research gaps in the introduction section of RAs in the field of ELT will help ELT educators attract editorial teams of journals and reviewers to consider and publish their research so that their meaningful and insightful pedagogical implications gain a wider readership.

1.2. Research questions

As discussed above, previous studies have dealt with several aspects in the introduction section of RAs. However, up to now, far too little attention has been paid to the investigation of authors' strategies in presenting research gaps in the section, particularly in the field of ELT. Therefore, adding to the scarcity and limitations of the previous research studies (i.e., Chen & Li, 2019; Lim, 2012; Rochma et al., 2020) and the consensus of whether the Scopus journal quartile (i.e., Q1, Q2, Q3, & Q4) predispose the ELT authors' types of research gap strategy, this study aims to investigate the ELT authors' research gap strategies in their RAIs whose RAs were published in the Scopus-indexed journals. This study aims to answer the following two research questions.

Q1. How are the types of research gap strategy used by ELT authors in their RAIs?

Q2. How do they present their research gap strategies seen from the Scopus journal quartiles?

2. Method

2.1. The corpus of the study

This study was based on 40 RAs published in eight Scopus-indexed journals. The eight journals were selected, and each journal consists of five RAs, which represent different quartiles (Q1-Q4) (Table 1). The journals were selected based on some considerations, namely representativeness, reputation, and accessibility (Amnuai, 2017). They were peer-reviewed journals and can be accessed online by visiting the journals' websites. They were claimed as reputable journals seen from the Scopus database (www.scopus.com) and SJR website. The websites provide the citation reports to ensure that the selected journals are from the world's leading journals, and they rank journals based on quartiles. Moreover, the journals were selected as the representative of each country to get the data collected evenly throughout the world. To control the potentially rapid changes within the discipline, the current issues were considered, and the publication of the journals was restricted to a period of three years (2019-2021). All the RAs were categorized as empirical research with the focus on ELT and had to have the conventional structure of a RA, i.e., Introduction, Method, Results, Discussion (IMRD) (Swales, 1990).

Table 1. The distribution of the research articles

No	Quartiles	Journals	No of RAs	Countries
1	Q1	Journal A	5	United Kingdom
		Journal B	5	Slovakia
2	Q2	Journal C	5	Taiwan
		Journal D	5	Jordan
3	Q3	Journal E	5	Thailand
		Journal F	5	China
4	Q4	Journal G	5	Poland
		Journal H	5	Indonesia
		Total	40	

2.2. Data Collection and Analysis

The selected RAs were downloaded and documented into several files. The introductions of the selected RAs were extracted and put into a separate file to analyze. The process of data analysis was done in several steps. First, the move of establishing a niche of each RAI was identified using Swales' (1990) framework. The extracts of niche establishments would be focused on the statements of the authors' research gaps. The words, phrases, and sentences that were indicated as research gaps were underlined, coded, categorized, and tabulated using the guidelines of Lim (2012) and Kwan et al., (2012) (Table 2). The research gap strategies have been discussed by two experts and revised as suggested, particularly in categorizing the types and determining the linguistic features indicating each strategy. It has also been piloted to other RAs not among the chosen samples.

Table 2. Research gap strategies (adapted from Lim, 2012; Kwan et al., 2012)

No	Types	Linguistic features
1	Stating the insufficient related studies	Little attention...; Limited information...; ...relatively unexplored...
2	Stating the absence of research	...remains largely a mystery...; none of ...; no systematic...; ...have not been...
3	Stating the limitations or shortcomings from previous studies	...is largely ignored...; ...does not sufficiently...; ...failed to find...
4	Stating the contrast evidence	...ambiguity...; ...mixed evidence...; ...inconsistent results...
5	Suggesting solutions	...suggests to...; ...would better to...; The suggestion is...

The simple descriptive statistics was conducted by counting and tabulating the frequency of each type of research gap strategies occurred in the authors' RAIs. The external coder who has expertise in genre-based analysis was invited to join the process of codification and check the results of the coded data. The obtained results were discussed, and the disagreements between coders were negotiated until the final decision was achieved. Based on the Kappa coefficient analysis, the cut-off point for research gap strategies classification was .896 which was claimed as the almost perfect agreement between coders (Cohen, 1960).

3. Results

3.1. The types of research gap strategies used by ELT authors in their RAIs

Based on the data analysis, in 7/40 RAs in our corpus, the authors did not appear to present research gaps. They only stated the necessity of their research which can be claimed as another way to establish their niches. Meanwhile, in 33/40 RAs, the authors presented their research gaps via research gap strategy types. It was found that five research gap strategies were found in the ELT authors' RAIs, namely stating the insufficient related studies, stating the absence of research, stating the limitations or shortcomings from previous studies, stating the contrast evidence, and suggesting solutions. The occurrences of each research gap strategy are shown in Table 3.

Table 3. Frequency of research gap strategies in the authors' RAIs

No	Research Gap Strategies	ELT RAIs (N=40)	
		F	%
1	Stating the insufficient related studies	21	37.50
2	Stating the absence of research	7	12.50
3	Stating the limitations or shortcomings from previous studies	4	7.15
4	Stating the contrast evidence	7	12.50
5	Suggesting solutions	17	30.35
	Total	56	100

Table 3 indicates that the authors' research gaps were established through several research gap strategies. The strategy of stating the insufficient related studies was found in a vast majority (37.50%) in the ELT RAIs. The strategy of suggesting solutions became the second-highest strategy seen from

the occurrences in the RAIs are 17 times, trailed behind by stating the absence of research and stating the contrast evidence. Surprisingly, the ELT authors rarely used the strategy of stating the limitations or shortcomings from previous studies since the percentage of occurrence was only found in a vast minority (7.15%). The research gap strategies with the exemplifications found in the corpus are explained in the following points.

3.1.1. Stating the insufficient related studies

The strategy of stating the insufficient related studies is appropriate to be used when authors identify a scarcity of research related to certain topics. It can be indicated by the authors' use of phrases denoting the dearth of literature, such as *little evidence*, *few studies*, *limited information*, etc. (Lim, 2012). Based on the data analysis, the ELT authors used the strategy of stating the insufficient related studies (Excerpt 1 and 2).

Excerpt (1)

In spite of that, the role of SES has rarely been investigated in the field of foreign language education, even though in many contexts the teaching of English as a foreign language is heavily marketised, which leaves it particularly open to the influence of factors such as SES. (RAI-03)

Excerpt (2)

Although some studies have demonstrated the importance of lower and higher level comprehension skills in developing proficiency in reading, fewer studies of English as a second or foreign language have contrasted these differing skills in investigations of what may influence good or poor reading comprehension. (RAI-21)

In Excerpt 1, the conjunction “*in spite of that*” has a function to link the previous sentence to the sentence indicating the authors' research gap. As seen in the sentence, the adverb “*rarely*” indicates that the investigation about the role of SES as a factor in teaching English is still lacking. After stating the research gap in the first clause, they stated the importance of examining the SES in the context of TEFL. It can be concluded that in stating the insufficient related study, authors can also use adverbs, such as *rarely*, *scarcely*, *barely*, etc. to indicate the dearth of research in specific areas. Meanwhile, in the complex sentence above (Excerpt 2), the main clause of the sentence indicates that the authors used the adjective of quantity signaling insufficiency (i.e., *fewer*) to indicate the lack of examining things that may influence good or poor reading comprehension.

3.1.2. Stating the absence of research

Swales and Feak (2004: 258) indicate that the missing areas which are detected from previous studies can be claimed as research gaps, and authors can use “full negative” words to highlight the absence of research. The excerpts below indicate that the authors used the strategy of stating the absence of research.

Excerpt (3)

However, there have not been any studies aimed at comparing the effectiveness of group, pair and individual tasks in learning phrasal verbs. (RAI-05)

Excerpt (4)

Researchers have tended to either focus more on other age groups of learners, or to discuss language teaching methodologies in general, without explicitly stating the needs and difficulties of older learners. (RAI-37)

Excerpt 3 indicates that the authors used the concessive conjunction *however* to present their sentence indicating their research gap. The authors confidently stated that there was no research concerning the effectiveness of three modes of learning phrasal verbs. In this strategy, the authors ensured that the proposed research topic has been possessed by no one. Similarly, excerpt 4 also illustrates that the authors indicated the missing things found in the previous studies as their research gaps. They investigated the needs and difficulties of older learners in learning English because the two things had not been explored in the previous studies.

3.1.3. Stating the contrast evidence

The contrast results from previous studies affect the uncertainty of the effectiveness of a certain strategy, method, or technique. Conflicting and contrasting findings can be used as a way to establish research gaps that function to abolish the uncertainty of previous research findings. Noun phrases denoting disagreement or uncertainty, such as *ambiguity*, *mixed findings*, *inconsistent results*, etc. can be used in this strategy (Lim, 2012). The realizations of the strategy in the ELT authors' RAIs are illustrated in the following excerpts.

Excerpt (5)

*The scant research on the effects on content knowledge, coupled with the fact that available scholarship tends to focus on single educational levels (e.g. specific primary or secondary levels) and that available results are **inconclusive** would appear to justify further study into performance in CLIL programs in non-language subject areas at more than one level. (RAI-01)*

Excerpt (6)

*Research on the benefits of CLIL on written development is **inconclusive**. (RAI-04)*

Excerpt 5 illustrates that there were two statements indicating research gaps, i.e., stating the insufficient related studies and stating the contrast evidence. The authors started to indicate the research gap using the statement indicating insufficient related studies, and they further explained that the scant research led to inconclusive results. It can be indicated that inconclusive results can happen if the number of research on a certain topic is still inadequate. In line with Excerpt 6 in which the authors used an adjective denoting uncertainty (i.e., inconclusive) related to the research of CLIL on written development.

3.1.4. Stating the limitations or shortcomings from previous studies

Limitations or shortcomings from previous studies can be used as research gaps. Lim (2012: 237) found that authors often highlighted some weaknesses using “overtly negative connotations” to indicate that further research needs to be conducted. The strategy was realized in the ELT authors' RAIs, and it can be seen from the excerpts below.

Excerpt (7)

*Second, most of the studies exclusively focused on dyads and **failed to emphasise** interaction involving more than two learners, with one or two notable exceptions. (RAI-05)*

Excerpt (8)

*Nevertheless, **the result** of this **research** seems **to be biased** as students with high English proficiency levels outperform the low proficient students. (RAI-09)*

In Excerpt 7, the authors detected the weaknesses done by the previous scholars using a verb denoting failure (i.e., failed). They emphasized that the previous scholars failed to stress the interaction involving more than two subjects. It indicates that the authors proposed an improvement by

focusing on the investigation of interactions involving more than two learners. In line with excerpt 8 in which the authors highlighted the limitations of what previous scholars had done. The authors detected a bias in the result of the previous study. The authors argued that high proficient students must be better than the low proficient students. The bias can be due to failures in understanding aspects of the research methodology (Robinson et al., 2011).

3.1.5. Suggesting solutions

Solutions from authors can be used as research gaps. Authors may rise problems from real-world phenomena or previous studies and decide to suggest solutions to solve the problems. Based on the data analysis, the ELT authors suggested solutions in two ways.

Excerpt (9)

If, as suggested by Forbes and Fisher (2015: 14), the goal is ‘contextualised strategy training’, then there is a need for further research on the use of language learning strategies for particular tasks in particular skills domains by language learners at different levels of proficiency. (RAI02)

Excerpt (10)

E-mind mapping may have potential usefulness in improving Jordanian students’ vocabulary achievements; thus varying teaching strategies may meet students’ learning needs. (RAI-20)

In Excerpt 9, the authors considered the suggestion given by previous scholars, i.e., Forbes and Fisher (2015). It also indicates that the authors did not only respond to the suggestion but also extend the investigation to be more specific than what previous scholars had done. Meanwhile, in Excerpt 10 the authors suggested implementing E-mind mapping to improve students’ vocabulary achievements. To strengthen their argument, the authors also put another sentence in the last of their statement that E-mind mapping may also meet students’ learning needs. So, it can be indicated that the ELT authors suggested solutions in two ways, conveying previous scholars’ suggestions and proposing solutions based on the authors’ knowledge.

3.2. The ELT authors’ strategies in presenting research gaps in their RAIs seen from the Scopus journal quartile lens

This section aims to show how the ELT authors presented their research gap strategies in their RAIs across the Scopus journal quartiles (Q1-Q4). The results of quantitative analysis, relying on the frequencies and percentages of research gap strategies that appeared in each Scopus journal quartile, become the indication of whether there is a difference between the research gap strategies applied in the authors’ RAs that were published in Q1, Q2, Q3, and Q4 journals.

Table 4. Descriptive statistical analysis results of the research gap strategies across Scopus journal quartiles

No	Research Gap Strategies	Scopus Journal Quartiles							
		Q1		Q2		Q3		Q4	
		N=10		N=10		N=10		N=10	
		F	%	F	%	F	%	F	%
1	Stating the insufficient related studies	8	30.76	6	42.85	5	50	2	33.33
2	Stating the absence of research	1	3.84	4	28.57	1	10	1	16.66
3	Stating the limitations or shortcomings from previous studies	4	15.38	-	-	-	-	-	-
4	Stating the contrast evidence	7	26.92	-	-	-	-	-	-
5	Suggesting solutions	6	23.07	4	28.57	4	40	3	50

Total	26	100	14	100	10	100	6	100
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Table 4 illustrates that there were some differences in terms of occurrence in using the types of research gap strategy in each Scopus journal quartile. In total, of 56 occurrences of research gap strategies, the ELT authors who published their RAs in the Q1 journals used their research gap strategies twenty six times. The second-highest frequency of using the research gap strategies is located in the Q2 journals. Meanwhile, the research gap strategies occurred in a vast minority (6/56) in the Q4 journals. It indicates that the higher the Scopus journal quartile is possessed by a journal, the more the research gap strategies were used, particularly in the ELT journals. The differences between the types of research gap strategies can also be seen in figure 1.

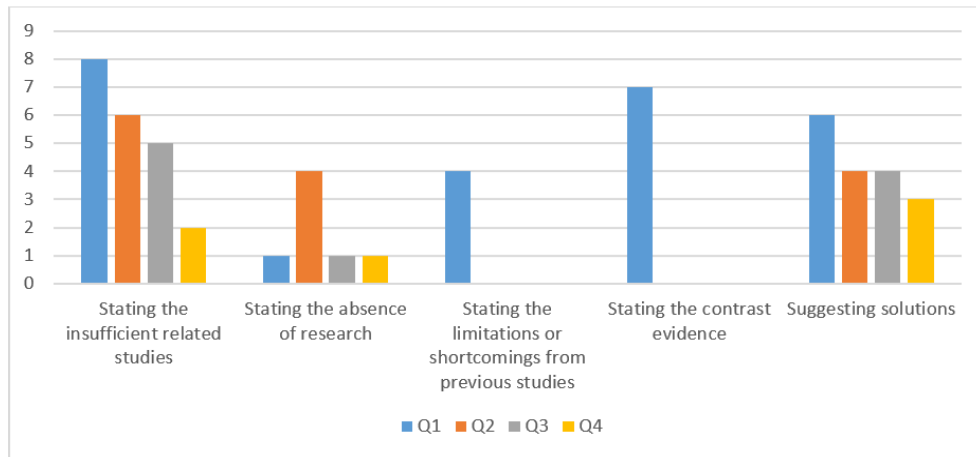


Figure 1. Research gap strategies occurrences across Scopus journal quartiles

Based on figure 1, we can see that all types of research gap strategies were used by the ELT authors who published their RAs in the Q1 journals (the blue bar). Also, it was found that the strategy of stating the limitations or shortcomings from previous studies and stating the contrast evidence only appeared in the Q1 journals. However, although the total number of research gap strategies in the RAs that were published in the Q2 journals (the orange bar) was smaller than in the Q1, the frequency of occurrence of stating the absence of research in the Q2 journals was the highest of all. Moreover, the Q2 journals were the same as the Q3 (grey bar) and Q4 (yellow bar) journals in terms of the number of types of research gap strategy.

Furthermore, two variations of using research gap strategies were found in the ELT RAIs, namely a single research gap strategy and multiple research gap strategies. Principally, in a single research gap strategy, authors only present one research gap with one strategy in an RAI. Whereas, in multiple research gap strategies authors apply more than one research gap strategy to present more than one research gap. For instance, they can present multiple research gaps with the same strategy or different strategies in RAIs.

Table 5. The variations in employing the strategy(s) in presenting research gap(s) in each RAI

Quartiles	Variations			No of RAs
	A single research gap strategy	Multiple research gap strategies.		
		Same strategy	Different strategies	
Q1	4	1	5	10
Q2	5	-	4	9
Q3	6	1	1	8

Q4	6	-	-	6
Total	21	2	10	33

Based on the data above, both variations appeared in the Q1, Q2, and Q3 journals. However, the authors who published their RAs in the Q4 journals only applied a single research gap strategy. In terms of applying the multiple research gap strategies, the multiple research gaps with the same strategy and multiple research gaps with different strategies only appeared in the Q1 and Q3 journals. Meanwhile, the authors who published their RAs in the Q2 journals only presented multiple research gaps with different strategies, and none of them used the same strategy more than once.

Presenting multiple research gaps with the same strategy that was applied by the ELT authors in the corpus can be seen in the excerpt below.

Excerpt (11)

*...the role of **SES has rarely been investigated** in the field of foreign language education... (First part)*

*...Despite this, there **has been relatively little interest** in the rôle SES... (Second part)*

*...**In rare cases where it is provided**, it often points... (Third part)*

(RAI03)

Based on the excerpt above, it can be noticed that the authors used the strategy of stating the insufficient related studies more than once in a cyclical way. However, the authors' research gaps are only about one issue, i.e., SES in foreign language education. It indicated that the strategy of stating the insufficient related studies in the first, second, and third parts functioned to emphasize that the issue of SES needed to be investigated the context of foreign language education.

Besides, it was found that the authors presented multiple research gaps with different strategies, as seen in the excerpt below.

Excerpt (12)

*First ...there **are limited studies** to support this conclusion. (First part)*

*Second... **failed to emphasize** interaction involving... (Second part)*

*However, there **have not been any studies** aimed at... (Third part)*

(RAI05)

Excerpt 12 is similar to excerpt 11 in which the authors presented their research gaps in a cyclical way. We can see that the authors stated their research gaps by using different research gap strategies. They used the strategy of stating the insufficient related studies in the first part, stating the limitations or shortcomings from previous studies strategy in the second part, and stating the absence of research strategy in the last part. It indicates that the authors did not only review previous research findings but also reviewed the method sections of previous research studies to indicate the shortcomings or limitations.

4. Discussion

This study has answered several issues about (i) the research gap strategies applied by the ELT authors in their RAIs, and (ii) the use of research gap strategies seen from the Scopus journal quartile lens. The study reported here differs from previous studies in one important aspect, specifying the area within a certain discipline (i.e., ELT as the specific area in Applied Linguistics). Specifying the area

will give deeper results related to the characteristics of the authors' strategies in presenting research gaps. This study indicates that the majority of authors (33/40 RAIs) showed their novel contributions by presenting research gaps via the five types of research gap strategy. The result of this study confirms that presenting a research gap is claimed as a crucial step in establishing a niche (Lim, 2012; Moghaddasi & Graves, 2017; Shehzad; Swales, 1990, 2004). Meanwhile, in 7/40 RAIs in our corpus, the authors did not present research gaps to indicate their research niches. They used another way to establish a niche called presenting positive justification. This is in line with Samraj (2002), who investigated the niche establishment of authors' RAIs in Conservational Biology. She also found the authors used positive justification in their RAIs. Presenting positive justification appeared when there is no literature available (Chen & Li, 2019; Samraj, 2002). Based on the finding of our study, we indicate that although presenting research gaps is crucial in establishing research niches in RAIs, some of the ELT authors may use another way to justified their studies by convincing readers about the necessity and importance of their studies.

In presenting research gaps, the ELT authors used five types of research gap strategies, namely stating the insufficient related studies, stating the absence of research, stating the limitations or shortcomings from previous studies, stating the contrast evidence, and suggesting solutions. The five strategies were used in two variations. Those are a single research gap strategy that was used when the authors presented only one research gap and multiple research gap strategies that were applied if the authors produced more than one research gap. The variation of multiple research gap strategies was applied cyclically in the ELT RAIs. It indicates that not only authors from mathematics used more than one strategy to indicate research gaps (Moghaddasi & Graves, 2017), but the ELT authors, in this study, also did the same, and on top of that, they used different research gap strategy types in an RAI. This finding corroborates the claim of Lim (2012) who suggests that a certain research gap strategy must be combined with the other types of research gap strategy to convince readers that a particular study is worth conducting.

Moreover, based on the frequency of occurrence of research gap strategies in the ELT RAIs, the strategy of stating the insufficient related studies was the most popular strategy used by the authors (21 times/ 37.50%). The ELT authors mostly used adjectives signaling insufficiency (e.g., 'few', 'little', 'scarce', etc.) to identify the dearth of research. In line with the study conducted by Lim (2012), the ELT authors also used adjectives modifying nouns denoting insufficient literature or information (e.g., 'limited studies', 'limited research', etc.). The finding of this study is also in line with Chen and Li (2019) who found that the strategy appeared in the authors' applied linguistics RAs in a vast majority. However, in our study, this strategy was not only used to identify the inadequate number of studies, but it also functioned to extend the similar studies done by previous researchers. Besides, the ELT authors added some particular variables to differentiate between what they did and what the others had done. It indicates that the ELT authors did not totally replicate previous studies and repeat what has been done by previous researchers.

Stating the absence of research was also found as one of the strategies used by the ELT authors in presenting research gaps. The difference between our study and what has been found in the previous study is seen from the placement of the statement indicating the absence itself. Abdolmalaki et al. (2019) located the statement indicating absence, which they claim as the statement of novelty, after stating the synopsis of the authors' research papers, while in this study the authors applied the strategy of stating the absence of research before formulating research questions. In terms of linguistic features, negative investigative verb phrases (i.e., 'has not been paid due attention', 'has not widely reported', 'was not observed', 'was not taken into account', 'were not known', etc.) dominated the occurrences (50%) more than other full-negative words (i.e, no previous study, no studies, & no consensus).

Furthermore, in our study, the finding indicates that the ELT authors specifically stated suggestion(s) to solve problems. The ELT authors began with the statements indicating problems, and then suggested solutions to solve the problems. They used words denoting necessity (i.e., ‘crucial’, ‘vital’, ‘importance’, ‘indispensable’, etc.) to convince readers that their solutions can solve the problems that had been mentioned. It is closely similar to what law authors did in their RAIs, focusing on problems (Feak & Swales, 2011). Besides, this study is also in line with what has been found by Kwan et al., (2012). They indicated that the authors in the field of information systems evaluated what had been found from previous studies, and then gave suggestions for further studies.

The strategy of stating the contrast evidence was also used by the ELT authors to identify the inconsistency of previous research findings. In line with the finding of the study conducted by Lim (2012), the ELT authors mostly deployed an adjective expressing vagueness (i.e., inconclusive) when they indicated the unclear findings from previous studies. A noun phrase (i.e., mixed results) also appeared in the ELT RAIs in which the authors indicated disagreements and differing standpoints of the past research findings. The strategy was found as the third-lowest strategy used by the ELT authors in their RAIs. This finding is contrary to that of Chen and Li (2019) who found that authors used the strategy in a vast minority in the literature review section of applied linguistics RAs. They also argue that the authors tended to state the insufficient related studies and shortcomings from previous studies in the section. We can indicate that the ELT authors, in our corpus, believed that the strategy can be more appropriate to be used in the introductory section, especially to capture readers’ attention that inconsistent findings of certain studies need to be solved.

Moreover, based on the finding of this study, the strategy of stating the limitations or shortcomings from previous studies seems to be the most difficult strategy used by the ELT authors since only a few of them (4/40 RAIs) addressed the previous scholars’ limitations. They used a verb denoting failure (i.e., ‘failed’) and a noun indicating shortcomings (i.e., ‘limitations’) to highlight the weaknesses found in previous studies. This finding is in agreement with Adnan’s (2014) finding which showed that the majority of authors from social science disciplines tended to avoid giving negative evaluations to what had been done by previous scholars. Taylor and Tingguang (1991) have suggested that authors should have a feeling of readiness especially in presenting illogical evidence and shortcomings identified from previous studies. In using the strategy of stating the limitations or shortcomings from previous studies, authors can state the strengths and weaknesses of methods in collecting and analyzing the data done by previous scholars (Chen and Li, 2019; Khany & Tazik, 2010; Lim, 2012). Thus, we suggest authors, particularly in ELT, use the strategy as many as the other strategy types, such as stating insufficient related studies and stating the absence from previous studies to convince their readers that their studies are worth conducting.

Furthermore, the comparative analysis indicates that the higher quartile the journal has, the more complex the research gap strategies the authors apply in their RAIs. The position of English possessed by authors may influence the application of strategies in presenting research gaps. According to Farnia and Barati (2017) and Mirahayuni (2002), native English authors tend to apply more strategies than non-native authors in writing the introduction section of RAs. In this study, most of the RAs published in the Q1 and Q2 journals were dominantly written by native English authors and those who possess English as a second language. However, the claim should not be the only reason indicating the frequency of applying research gap strategies because in this study some native authors also published their RAIs in the Q3 and Q4 journals, but they presented few research gap strategies. It may be due to the complex process of reviewing because the higher quartile the journal has the stricter the considerations to publish the RAs. The journal editorial teams of the journals that have higher impact factors would prefer to consider the quality of RAs with novel contributions (Bavdekar & Save, 2015),

and the novelty can be seen through ways of authors apply their research gap strategies to capture the interest of reviewers of the journals (Lim, 2012).

Moreover, another factor that may influence the application of research gap strategies in different Scopus journal quartiles is the tradition in proposing areas of studies. As seen from the finding, the authors from the Q4 journals only used three types of research gap strategies with the least frequency of appearance compared to the others (Q1, Q2, and Q3 journals). Some authors would prefer to choose positive justification more than apply research gap strategies to propose their research. They stated the importance or necessity of their studies without establishing their niches by indicating research gaps. As seen from the nationality of the authors, more than half of them are from Indonesia. Based on previous studies, most Indonesian authors tend to present the necessity of their studies and avoid giving evaluations of what had been done in previous studies (Adnan, 2014; Arono & Arsyad, 2019; Arsyad, 2013; Arsyad & Arono, 2016). In addition, it indicates that the reviewers and the editorial team of the journals are also considered the tradition of using positive justification. However, it does not mean that authors have to avoid using positive justification. They may convince their audiences about the necessity or importance of their studies after presenting research gaps. Swales (1990) has suggested that authors need to critically review previous studies and find research gaps from the studies.

5. Conclusions

This study attempts to investigate the research gap strategies applied by the ELT authors who published their RAs in Scopus-indexed journals. It also investigates the differences in using the research gap strategies across the Scopus journal quartiles. The results indicate that the authors used five types of research gap strategies, namely stating the absence of research, stating the insufficient related studies, stating the limitations or shortcomings from previous studies, stating the contrast evidence, and suggesting solutions. The second aim of this study shows that the journal quartile influences the frequency of using the research gap strategies by the authors in their ELT RAs. The comparative analysis indicates that the higher the Scopus journal quartile, the more research gap strategies used by the authors. Moreover, several variations were applied by the ELT authors in presenting research gap strategies, namely a single research gap strategy and multiple research gap strategies.

This study is not exempt from limitations. Since this study focuses on the subfield of applied linguistics, the research results of this study may not generalize to other fields. It is suggested to other researchers to widen their investigations by choosing other disciplines, or they may compare the research gap strategies used by authors across disciplines. Besides, it is suggested that other studies collect more data to strengthen the results that there are differences in terms of using research gap strategies across Scopus journal quartiles. Moreover, this study only investigated the authors' research gap strategies in the selected RAs that follow the conventional structure of RA, meaning there is a further space to explore the ways of presenting research gaps in a different structure of RA.

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