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## Research Gap Strategies in Article Introductions of Different Rank Applied Linguistics Journals

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### Abstract

*Research gap (RG) becomes an important rhetorical work in research article introductions in all fields, especially in a competitive research publication atmosphere. A research article (RA) submitted to a reputable journal may be rejected because the writers fail to show the 'niche' in reviewing previous relevant studies to justify their research project. This research aims to find how writers in Applied Linguistics (AL) published in international journals of different quality in terms of their quartile value address the novelty in their journal article introductions. Forty articles were selected from eight different reputable international journals in AL of different tiers for the corpus of this study. The content analysis method under the umbrella of the qualitative approach was applied in the data collection and analysis. Six RG strategies, as suggested by Arianto et al. (2021), were used as a model for analysis and then the linguistic features used by the writers in realizing the RGs. The results show that among the six different RG strategies, the most frequently used by international writers are Strategy 2 (inadequate research) and Strategy 4 (contradictive/conflicting evidence). Among the four groups of RAs, those published in Quartile 1 journals used the most frequent strategies. The frequent linguistic features used by international writers are adversative conjunctions and adjective-modifying nouns to signal their RG strategies. To improve the quality of an article introduction, writers, especially novice*

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*writers, should use multiple strategies with the appropriate linguistic features.*

**Keywords:** Applied linguistics, international journals, journal ranking, research article introduction, research gap strategies.

## 1. INTRODUCTION

Writers need to establish a research gap in their article introduction to show readers that previous studies have some limitations or shortcomings; therefore, their research is necessary or important. Miles (2017) recommends that developing a research gap becomes important in crafting a research article (RA). According to Lim (2012), writers need to convince readers that their research results will have an important contribution to the available body of knowledge, and therefore, readers should read their articles. Similarly, Arianto et al. (2021) claim that the novelty or newness of a piece of research is usually addressed in an article introduction; that is, when writers state the research gaps (RGs). However, writers publishing in international journals of different rankings may use different rhetorical strategies and linguistic realizations in addressing their RGs, and the different strategies and linguistic features may affect the quality of articles published in international journals.

The RG statement is aimed at showing what has been investigated in the previous studies on the same topic and the rationale of why further study is still necessary (Lim, 2012). According to Swales (1990), the RG claim is usually written in the introduction section of an RA, especially in the rhetorical work of ‘establishing a niche’ (p. 142). Deveci (2020) suggests that the way writers address their RGs in the introduction section will significantly impact readers’ interest in the whole article. In other words, if readers are impressed by the writer’s argument on why their research is important and valuable, they will then read the entire article, and if they are not, they may abandon reading the article.

Although RAs, especially those published in reputable international journals in English written by native or non-native writers in various fields, have been frequently investigated, studies on how writers address their RGs in their article introductions are rarely found in the literature (Arianto et al., 2021). Studies on RGs are important because the quality of an article may depend on how writers justify their research; that is, to fix the shortcomings or add new information to the previous research results, and therefore readers should read their article comprehensively (Lim, 2012). In other words, addressing the RGs becomes a rhetorical strategy by article writers to support the importance of their research project. However, writers publishing in international journals of different tiers may address RGs rhetorically differently. As a guideline, this research is aimed at answering the questions below.

1. What research gap strategies are often used in the article introductions in Applied Linguistics (AL) written by international writers published in different tier journals? and
2. What linguistic features are often used by international writers in AL to address the research gap in their article introduction?

## 2. LITERATURE REVIEW

### 2.1 Writers' Strategy in Establishing Research Gaps

Among limited studies on writers' strategy in establishing an RG in their article introduction are those conducted by Lim (2012), Suryani et al. (2015), Müller-Bloch and Kranz (2015), Chen and Li (2019) and Arianto et al. (2021). Lim (2012) found that compared to writers in Educational Psychology, Second Language Writing, and Biochemistry, more writers in the field of Management indicated their RGs in their article introductions. According to Lim, scholars in the field of Management address the RG to convince and persuade readers to accept the novelty of their research findings. Similarly, Suryani et al. (2015) investigated how Malaysian university researchers in Computer Science address RGs in their RA introductions and found that the majority of the writers in the data of their study already addressed some RG in their article introductions. According to Suryani et al. (2015), this is because the writers have realized the importance of RG in a competitive research environment. Also, Chen and Li (2019) found that compared to earlier learners, recent learners in their study were more critical in their composition, particularly in writing the introduction. According to Chen and Li, this is because of the academic writing training offered by the university's graduate program.

Müller-Bloch and Kranz (2015) investigated research gaps used by authors in 40 RA introductions in the field of Information Systems. They found eight types of research gaps: 'contradictory evidence', 'knowledge void', 'action-knowledge conflict', 'methodological conflict', 'evaluation void', 'theory-application void', 'parallel presentation' and 'sequential presentation' (p. 8). According to Müller-Bloch and Kranz (2015), among the eight types of RG, 'knowledge void' is the most frequently used by the authors in their study. They recommend that more studies be conducted to identify common and frequent research gaps authors use in a particular field or discipline. Similarly, Miles (2017) suggests seven similar types of research gaps that authors can use to justify their research in their RA introductions; these are 'evidence gap', 'knowledge gap', 'practical-knowledge conflict gap', 'methodological gap', 'empirical gap', 'theoretical gap', and 'population gap' (p. 2). However, unlike Müller-Bloch and Kranz (2015), Miles (2017) did not examine his framework in an empirical study to see whether or not it could effectively capture the RG strategies used by authors in article introductions.

### 2.2 Research Gaps Strategy in the Field of English Language Education

A more recent study on RG strategy in the field of English language education of AL is by Arianto et al. (2021). In their study, Arianto et al. (2021) compared three groups of writers in AL (i.e., Indonesian doctoral students, Indonesian faculty members, and international journal writers) in the ways they support their research in the article abstracts and introductions. They found that the majority of the writers use one or more of the five different strategies: 1) claiming nonexistent research dealing with a specific topic, 2) suggesting inadequate research in a particular aspect, 3) stating limitation(s) in previous research, 4) claiming contradictive or conflicting previous research findings, and 5) suggesting solution(s) in abstracts and introductions of their journal articles (p. 28). According to Arianto et al. (2021), Indonesian writers (faculty

members and doctoral students) do not use the five strategies as frequently as international writers do. Among the three groups of writers, the Indonesian doctoral students used the least strategies, while the international writers used the most strategies. According to [Arianto et al. \(2021\)](#), this is because the writers lack understanding and awareness of how to criticize previous studies for revealing the RGs. In other words, the academic culture and research practices may have affected Indonesian writers, especially postgraduate students, in writing academic work, such as articles and dissertations.

The study by [Arianto et al. \(2021\)](#) provides beneficial information that Indonesian writers in ELT use different strategies in addressing their RG in the abstracts and introductions of their articles from international writers. This can help and train Indonesian students and writers to write better article introductions, especially in establishing an RG in their introduction to be submitted to reputable international journals. However, [Arianto et al. \(2021\)](#)'s study compared three groups of writers of different levels of expertise (i.e., university students, Indonesian university lecturers, and international writers), and therefore, the results are different.

If the writers are of the same level of expertise (international writers in the language-related field) publishing in international journals, their RG strategies may be similar. This information is important because the choice of a particular RG strategy may indicate the quality of an article's introduction. Also, [Arianto et al. \(2021\)](#) did not look further at how the writers linguistically realize the statement of the knowledge gap. This information is important because different gap-establishing strategies may be realized using different linguistic features. This is the rationale for this study; that is to know whether or not international writers in AL publishing in different tier international journals use the same RG strategies and whether or not they use the same linguistic realizations to address the RG strategies in their article introductions.

### **3. METHOD**

This research used a content analysis method following [Drisko and Maschi \(2016\)](#). According to Krippendorff (2013, cited in [Drisko & Maschi, 2016](#)), content analysis is "... a research technique for making replicable and valid inferences from texts or other meaningful matter to the contexts of their use" (p. 2). They further suggest that the content analysis method can be used to analyze and record a person's behaviors, opinions, and concerns or a group of people of varied backgrounds. However, according to [Drisko and Maschi \(2016\)](#), most researchers use this method descriptively, although they may use it to create a new hypothesis or examine an already available theory. In this study, the content analysis method was used qualitatively to describe what research gap strategies authors use in their RA introductions and how they use the strategies to address the novelty of their studies.

#### **3.1 The Corpus of the Study**

The articles chosen for this research came from eight reputable international journals indexed by Scopus with different ranking or quartile values. Table 1 below presents the distribution of the journals included in this research.

**Table 1.** The distribution of the RAs in the corpus of this study (data are of 2021).

No.	Journals	Code	Country of Publication	SJR Score	Number of articles
1.	Studies in Second Language Learning and Teaching	SSLLT	Poland	1.76	5
2.	Journal of Asia TEFL	JAT	South Korea	0.39	5
3.	Studies in English Language Education	SiELE	Indonesia	0.27	5
4.	Journal of Language Education	JLE	Russia	0.22	5
5.	Journal of Research in Applied Linguistics	RALs	Iran	0.16	5
6.	Asian Journal of Applied Linguistics	AJAL	Hongkong	0.16	5
7.	Journal of English Studies	JES	Spain	0.12	5
8.	Taiwan International ESP Journal	TESP	Taiwan	0.11	5
Total					40

As can be seen in Table 1, 40 articles were taken from eight different journals for this research. Following [Amnuai \(2017\)](#), the journals were chosen based on representativeness, quality, suitability and accessibility. First, they were chosen because they are reputable international journals indexed by an international indexing organization or Scopus. Second, these journals publish an article in the field of English Language Teaching or Applied Linguistics. Third, the quality of the journals is shown by their Quartile value of Quartile 1, the highest, and Quartile 4, the lowest, when the articles were downloaded. Then, these journals are published in several different countries in Asia and Europe. Also, the articles published in the journals can be accessed and downloaded for free.

Finally, we took the recent articles published in these journals to represent the recent characteristics of articles published in these journals. It is believed that the articles have represented other articles recently published in the journals because they were taken from the recent publication. It can be noticed in Table 1 that the Scimago Journal Rank (SJR) value of the journals chosen for this study is different from one journal to the others; the higher the Quartile value, the higher the SJR value is. The SJR score is based on the transfer of dignity from one journal to another; such dignity is transferred through the references cited in one journal to the rest of the journals and to itself ([Scimago Research Group, 2007](#)). In other words, the higher the SJR score of a journal, the better it is, and more readers read and cite the articles published in the journal.

### 3.2 The Data Collection Technique 1

The RG is often addressed in the introduction section of an RA ([Swales, 2004](#)), although some writers may also address the research gap in the abstract of their articles. According to [Miles \(2017\)](#), research problems are not always research gaps; research gaps are obtained from the critical analysis of reviewing relevant studies. Although there have been several models for RGs, such as from [Müller-Bloch and Kranz \(2015\)](#) and [Miles \(2017\)](#), this study followed the framework of [Arianto et al. \(2021\)](#). This is because this model is more recent and more suitable for the research context of Applied Linguistics. This model has also been found effective in capturing RG strategies in article introductions published in national and international journals ([Arianto et al., 2021](#)). The RG strategies suggested by [Arianto et al. \(2021, p. 28\)](#) are 1) claiming

nonexistent research dealing with a specific feature, 2) suggesting inadequate research in a particular aspect, 3) stating limitation(s) in previous research, 4) showing contradictory or conflicting previous research findings, and 5) suggesting solution(s). Below are examples of the rhetorical work of each strategy.

### 3.2.1 Strategy 1

Strategy 1 is claiming nonexistent research dealing with a specific feature, as in the following example.

- (S1) It is clear that M-reader is a useful tool to develop ER in students, and that Extensive Reading has a great potential in developing learners' reading proficiency including reading fluency and improved reading habits. Despite the many studies on M-reader in different parts of the world, **no studies** have focused on students' ideas toward the pros and cons of M-reader and how they can be improved. To address the gaps in the previous studies and to check whether or not M-reader is working from students' view, the researcher attempts to investigate Omani students' actual perceptions of M-reader at the Foundation Program at SQU.

The extract in S1 was taken from an article titled 'Students' perception on M-reader' written by [Rajabpour \(2020\)](#), published in TEFLIN Journal volume 31 issue 2. As seen in S1, the writers claim that no study has ever been conducted focusing on using M-readers; therefore, the study is important.

### 3.2.2 Strategy 2

Strategy 2 is suggesting inadequate research in a particular aspect, as in the following example.

- (S2) The literature review above reveals that previous studies on glossing have generated inconclusive findings as to whether glosses indeed promote L2 reading comprehension as purported by researchers, teaching material developers, and L2 reading teachers. That is, while working memory has been championed as a central component of L2 reading comprehension, the role of phonological short-term memory **has not received its due attention** from researchers.

The extract in S2 was taken from an article titled 'The role of glossing and working memory capacity in second language reading comprehension' by [Jung \(2021\)](#), published in The Journal of Asia TEFL volume 18 issue 2. As identified in the extract, the writer claims that studies on the role of phonological short-term memory have not been conducted frequently enough, and therefore, this study is necessary.

### 3.2.3 Strategy 3

Strategy 3 is stating limitation(s) in previous research, as in the following example.

- (S3) As presented above, despite the existence of informative studies on various issues on writing done by college EFL learners, **there is only a paucity of studies** that looked into learners' experiences in and views on writing in a disciplinary-specific course, especially for those who study English to become English teachers or practitioners (TEFL, 18.2).



The extract in S3 was taken from an article titled ‘EFL undergraduate and graduate learners’ views on a writing intensive online subject matter Course’ by [Sung \(2021\)](#), published in *The Journal of Asia TEFL* volume 18 issue 2. As seen in S3, the writers claim that there is a limited study ever conducted on the topic of learners’ experiences in and views on writing in a disciplinary-specific course; therefore, this study is justifiable.

#### 3.2.4 Strategy 4

Strategy 4 is showing contradictive or conflicting previous research findings as in the following example.

(S4) It can be seen from these studies that teachers’ and students’ opinions of the motivational attributes of a task **are not always similar**, and this difference depends on such factors as personal, professional, academic, and cultural backgrounds and experiences.

The extract in S4 was taken from an article titled ‘Task-related motivational strategies in EFL classrooms: A glimpse into teachers’ and students’ perceptions’ written by [Truong \(2021\)](#), published in *The Journal of Asia TEFL* volume 18 issue 2. As can be seen in S4, the writer claims that the findings of previous studies on the perception of teachers and learners on motivational aspects of an assignment are inconsistent; therefore, this study is necessary.

#### 3.2.5 Strategy 5

Strategy 5 is suggesting solution/s as in the following example.

(S5) Such interventions to promote pre-service teachers’ reflective practice **need to be incorporated** into teacher education programs to develop pre-service teachers’ reflection and evaluate the level of their reflection. ... Thus, incorporating pre-service teachers’ reflections in portraying their initial professional development during teaching practicum **is recommended**, as conducted in this study. In resonance with this crucial measure, this present study focused on discovering: a) pre-service teachers’ knowledge base of teaching and b) the extent to which they perceive and reflect on the implementation of their knowledge base of teaching in their microteaching class.

The extract in S5 was taken from an article titled ‘Assessing English pre-service teachers’ knowledge base of teaching: Linking knowledge and self-potrayal’ written by [Triastuti \(2020\)](#), published in *TEFLIN Journal* volume 31 issue 1. As indicated in S5, the writer suggests a solution for pre-service teachers to incorporate their reflections in portraying their initial professional development in teaching practice.

#### 3.2.6 Strategy 6

We propose another type of RG strategy, which is not included in [Arianto et al. \(2021\)](#), continuing the previous studies or Strategy-6. Here, the writers claim that their research aims to follow up on the finding of previous studies to know more about the phenomena being discussed. According to [Swales \(2004\)](#), writers may also argue that the rationale for their research project is only to add to what is known; therefore, they do not have to evaluate or criticize the findings of previous relevant studies. Below is an example.

- (S6) The importance of this study is that it provides an examination of the extent to which the procedural repetition of narrative tasks shapes AF levels in the students' classrooms. Moreover, this study **contributes to existing knowledge** on the interaction of AF in tasks whose design is complex, in other words, "the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner" (Robinson, 2001, p.29).

The extract in S6 was taken from an article titled 'Role of task repetition and content familiarity in EFL students' fluency and accuracy in narrative tasks: A case study' by [Arredondo-Tapia and Garcia-Ponce \(2021\)](#), published in *Journal of Language & Education* volume 7 issue 2. As indicated in the above example, the writers mention that their research aim is to add to the existing knowledge on the communication of AF (accuracy and fluency) in complex exercises in narrative tasks. It is important to note that the writer/s may use more than one RG strategy in one RA introduction.

### **3.3 The Data Collection Technique 2**

The second research question in this study was answered by analyzing the linguistics realization used by the writers in addressing the RG strategy to justify their research project. Following [Arianto et al. \(2021\)](#), the writers may use one or more of the following phrases to indicate their RG.

- Connective adverbs, such as: nevertheless, nonetheless, yet, however, etc.
- Prepositional phrases such as: despite this research ..., ... remain largely a mystery, notwithstanding these views ..., etc.
- Adjective modifying nouns, such as: ... relatively unexplored, ... understudied phenomenon, ... limited information, ... sporadic evidence, etc.
- Negative verb phrases, such as: ... do not sufficiently explain ..., do not explicitly consider ..., has not addressed ..., etc.
- Phrases denoting uncertainty, such as ambiguity, mixed evidence, lack of consensus, conflict with, inconsistency with, etc.
- Phrases denoting suggestion, such as: ... previous studies suggest that it is suggested ..., etc.
- Phrases denoting the need for a further study, such as: To further explore the efficacy of EMI teacher support, an EMI training program was designed and is reported in the current study.

The writers may use one or more linguistic clues in signaling their RG strategies in their RA introductions and these linguistic features can also be used by readers to analyze the RG strategies used by the writers of the articles being read.

### **3.4 Data Analysis Procedures**

The chosen RAs were downloaded from the journals and stored in separate files. The introduction sections of the RAs were extracted and saved in a separate file for analysis. The data analysis procedure was broken down into several phases. First, [Swales' \(2004\)](#) creating research space (CARS) approach was used to identify the moves and steps in each RA introduction, particularly Move 1 (establishing a territory) and Move 2 (establishing a niche). Second, the analysis was focused on the authors' statements about the research gap. Here, specific words, phrases, and sentences indicated a research gap were highlighted, coded, and classified using the framework



described in the data-collecting procedure above. Then, the specific linguistic realizations used by the authors in addressing their research gap were also highlighted, coded, and classified following Arianto et al. (2021). Finally, the frequency of each type of RG strategy and specific linguistic features in the authors' introduction were counted and tabulated using simple descriptive statistics of frequency and percentage.

### 3.5 Validating Data Analysis Results

In this study, an independent coder was asked to analyze the RG strategy on randomly chosen articles to establish the accuracy of the research data. The independent coder for this research was a faculty member at the Study Program of English of Universitas Bengkulu who holds a Master of Arts degree in English Education. The independent coder was taught how to analyze the strategy using the research instrument (attached in Appendix 1) to analyze the RG strategy well. The independent coder was then asked to analyze the possible strategies in a sample of eight RA introductions (four RA introductions were chosen at random from the four sets of RAs in the corpus of this research). Then, if any mislabeling or different coding results happened, the researcher and the independent coder discussed until reaching an agreement. Finally, the independent coder coded the sample articles using the same research instrument.

The inter-coder agreement was assessed using Cohen's Kappa coefficient. According to Corder and Foreman (2014), Cohen's kappa statistical analysis has a maximum score of 1.00 and a minimum score of 0.00. Then, a Cohen Kappa score of below 0.40 was classified as bad, 0.40-0.59 average, 0.60-0.74 acceptable, and 0.75 or higher exceptional (Kanoksilapatham, 2005). The Kappa coefficient value was determined after comparing the researcher and independent coder's coding results on the chosen samples of RA introductions. After comparing the analysis results from the researcher and the independent coder, the Kappa coefficient score was determined and the results are presented in Table 2. As can be seen in Table 2, the obtained Cohen's Kappa score is 0.82, an exceptional total inter-coder reliability. This implies that analyzing and classifying the RG strategies in the RA introductions was decent.

**Table 2.** Inter-coder reliability results.

No.	Research gap strategies	Cohen's Kappa Score
1.	Nonexistent research	0.82
2.	Inadequate research	0.80
3.	Limitation in previous studies	0.70
4.	Contradictive or conflicting evidence	0.87
5.	Suggesting solution	1.00
6.	Continuing previous studies	0.70
	Mean	0.82

## 4. RESULTS AND DISCUSSION

### 4.1 Results

The data analysis results on the research gap strategies used by the authors are shown in Table 3, while the differences between the journal articles of different

quartiles are given in Figure 1. Then, the linguistic features used by the authors to address the research gap strategies are shown in Table 4.

#### 4.1.1 Research gap strategy in the research article introductions

Data analysis results show that international writers in AL publishing articles in different-tier international journals use different strategies in addressing their RG in their RA introductions. The distribution of the RG strategies is shown in Table 3.

**Table 3.** Frequencies of RG strategies in RA introduction.

No.	RG strategy	Journal quartile value				Total N=40	%
		Q1 n=10	Q2 n=10	Q3 n=10	Q4 n=10		
1.	S1-Nonexistent research	4	2	1	-	7	10.45
2.	S2-Inadequate research	5	5	6	7	23	34.32
3.	S3-Limitation in previous studies	5	1	3	1	10	14.93
4.	S4-Contradictive/conflicting evidence	13	2	2	1	18	26.87
5.	S5-Suggesting solution	-	-	-	-	-	-
6.	S6-Continuing previous studies	2	3	2	2	9	13.43
Total		29	13	14	11	67	100

Table 3 indicates that the most dominant strategy used by the international journal writers is Strategy 2 (revealing inadequate research in a specific aspect) or 23 samples (34.32%), and the second dominant strategy is Strategy 4 or showing contradiction to previous research findings (18 samples or 26.87%). Below are examples of the two strategies taken from the data of this study.

- E1 Although studies that focus on the manifestation of abstract discourse patterns have been widely conducted (see Lubis & Kurniawan, 2020), **scant attention has been paid to the development of genre knowledge manifested in abstract move patterns.** (SIELE-1)

The extract in E1 was taken from a journal article titled ‘Rhetorical move and genre knowledge Development of English and Indonesian abstracts: A comparative analysis’ by Pratiwi and Kurniawan (2021), published in SIELE Journal volume 8 issue 3. In the above example, the writers claim that many studies have been conducted on the rhetorical move patterns of article abstracts, but very few of them look at the effect of the education level of the writers on the development of their genre knowledge; therefore, it is classified as strategy 2.

- E2 Some studies have explored the effects of EMI on content learning with mixed results (Dafouz, Camacho, & Urquia, 2014; Fidan Uçar & Soruç, 2018; Graham et al., 2018; Hernandez-Nanclares & Jimenez-Munoz, 2017; G. Hu & Duan, 2019; Ibrahim et al., 2017; Manan, 2019). Students in Fidan Uçar and Soruç’s (2018) research believed that EMI facilitated their content learning. **However, other studies which compared academic results of EMI and non-EMI groups of students found no significant differences** (see, for example, Dafouz et al., 2014; Hernandez-Nanclares & Jimenez-Munoz, 2017) which suggests, in those contexts at least, that EMI did not foster content learning. (AJAL-5)

The extract in E2 was taken from an article titled ‘Learning scenarios in an EMI classroom in higher education: Students’ perceptions in Taiwan’ written by [Huang \(2020\)](#) and published in the *Asian Journal of Applied Linguistics* volume 7 issue 1. As can be seen in the above example, the writer claims that studies on the use of English as a medium of instruction (EMI) have contradictory results and therefore, it is classified as strategy 4.

Table 3 also shows that other strategies (Strategy 1 or claiming nonexistence of research on a specific aspect, Strategy 3 or stating limitation/s in previous research, and Strategy 6 or following up the previous studies) are also used by the international writers although not as often as Strategy 2 and 4. Below are examples of other strategies found in the RA introductions in the data of this study.

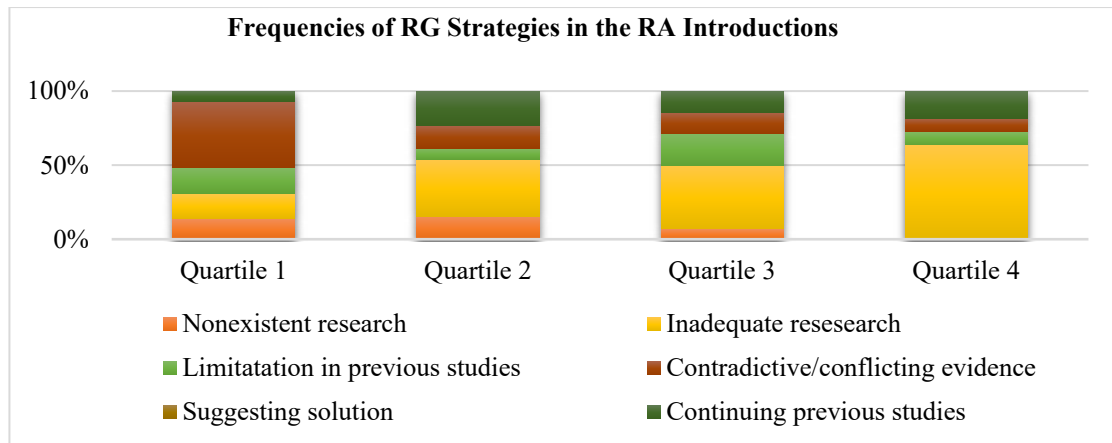
- E3 However, **no study** has compared the consistency of students’ revisions in terms of writing elements such as substance, coherence, grammar, word selection, and mechanics, between the classroom and asynchronous online communication peer feedback, and **no research study** compares students’ perceptions after experiencing those two kinds of peer feedback interactions (JLE-2).
- E4 However, **several past studies have not distinguished these two types of knowledge**, which may partly contribute to their inconsistent results (JAT-3).
- E5 **Following this line of scholarship**, this study aimed to conduct a needs analysis in a Daikin company, which is one of the largest global companies. This study addresses the gap in the literature by investigating Daikin engineers’ needs and difficulties in learning and using English in their workplace in Vietnam (TESP-6).

E3 was taken from an article titled ‘Experiencing peer feedback activities with teacher’s intervention through face-to-face and asynchronous online interaction: The impact on students writing development and perceptions’ written by [Astrid et al. \(2021\)](#), and published in the *Journal of Language & Education*. As indicated in E3, the writer states that no study has compared the consistency of students’ revisions in terms of writing elements, and that is why this is categorized as strategy 1. E4 was taken from an article titled ‘Diagnosis of Korean EFL high school students’ reading fluency using informal reading inventory’ written by [Ryu and Lee \(2021\)](#), published in *The Journal of Asia TEFL* volume 18 issue 2. As indicated in E4, the authors mention that several past studies have not distinguished the two types of knowledge and, therefore this is classified as strategy 3. Finally, E5 was taken from an article titled ‘Needs analysis of Vietnamese Daikin Engineers in their workplace: A preliminary study’ by [Cheng and Uyen \(2020\)](#), published in *Taiwan International ESP Journal* volume 11 issue 2. In this article, the writers mention that their study was following the results of previous studies to learn more about the topic.

It can also be seen in Table 3 that articles in Quartile 1 journals use the most strategies (29 or 43.28%), and on average, one article uses three RG strategies of the same or different types. The articles in journals with other quartile values (2, 3, and 4), on the other hand, use RG strategies equally frequently but use only 1 strategy on average. If presented in a chart, the frequencies of the RG strategies in the RA introductions are illustrated in Figure 1.

Figure 1 shows writers of the articles published in Quartile 1 international journals rely heavily on Strategy 4 (showing contradictive previous research findings) in establishing their research niche or gap while justifying the importance of their

research. Writers in other Quartile journals (Quartile 2, 3, and 4), on the other hand, rely on the use of Strategy 2 (stressing insufficient research in a specific aspect). Strategy 5 (suggesting solution/s) is apparently rarely used in all Quartile journals.



**Figure 1.** RG strategies in RA introductions of different quartiles.

#### 4.1.2 The linguistic features realizing the research gap strategies

The second analysis was on the use of specific linguistic features in addressing the RG strategies in the article introductions. The results are displayed in Table 4.

As presented in Table 4, concessive connectors (adverb), such as ‘however’, ‘nevertheless’, ‘yet’, etc., are the most frequently linguistic features to signal a research strategy in the introductions of articles published in reputable international journals in the language-related field. The second most frequent linguistic features found in the article introductions are adjective modifying nouns, such as ‘limited research’, ‘little evidence’, ‘few studies’, etc. Table 4 also shows that concessive connectors (prepositional phrase), such as ‘despite...’, ‘while ...’, ‘although ...’, etc. and negative verb phrases, such as ‘not ...’, ‘do not ...’, ‘no...’, ‘not all ...’, ‘have not ...’, etc. are also often used by the writers to signal a research gap strategy. However, one or more linguistic clues can be used by the writers to address their research gap strategy such as in E6.

**Table 4.** The linguistic features in addressing the research gap strategies.

No.	Linguistic features	Examples	f	%
1.	Adversative conjunctions plus a clause	... <b>however</b> , there has yet to be a detailed analysis of teachers’ corrective feedback practice through, for example, an analysis of the teacher feedback corpus.	32	32.99
2.	Adversative conjunctions plus a prepositional phrase	... <b>despite</b> the existence of informative studies on various issues on writing done by college EFL learners, ...	17	17.55
3.	Adjective modifying nouns	In the study of second language reading and education, however, ORF has been <b>relatively less scrutinized</b> as a predominant characteristic until very recently, ...	23	23.71
4.	Negation	Don’s (2017) discussions of ‘status’ and ‘contact’ are highly relevant to the present study. However, Don (2017) <b>does not</b> develop system networks for her work on alignment.	12	12.37

Table 4 continued...

5.	Phrases denoting uncertainty	However, previous studies have not differentiated these two kinds of knowledge, which may partly add to their <b>inconsistent results</b> .	7	7.22
6.	Phrases denoting suggestion	-	-	-
7.	Phrases denoting a need for further study	This article <b>will extend</b> the use of the framework to focus on children's use of evaluative language with their peers, rather than with an adult, and in play, rather than in a formal literacy learning context. Three questions are addressed.	6	6.19
Total			97	100

- E6 **However, despite the apparent link between fluency and reading comprehension**, for EAL learners, high levels of reading fluency **may not** correlate with good reading comprehension (Lesaux et al., 2010). (SLLT-5)

E6 was taken from an article titled 'Exploring the importance of vocabulary for English as an additional language learners' reading comprehension' written by Brooks et al. (2021) and published in *Studies in Second Language Learning and Teaching*, volume 11 issue 3. As indicated in E6, the writers use three linguistic features (however, despite ... and ... not) in addressing their research gap. Another example is given below.

- E7 While theoretical discrepancies exist, there is **limited evidence** whether L2SCA indices can reliably test the linguistic features in the corresponding dimension when tested on a large dataset. (AJAL-2)

E7 was taken from an article titled 'Emotion and syntactic complexity in L2 writing: A corpus-based study on Chinese college-level students' English writing' by Wang (2020)<sub>2</sub>, published in the *Asian Journal of Applied Linguistics*, volume 7 issue 1. As indicated in E7, the writers use an adjective modifying noun (limited evidence) in advocating their RG.

## 4.2 Discussion

The first objective of this research is to find the research gap strategies often used in the papers by international writers published in different tier journals in the language-related field. The findings show that the most frequent strategies used by the international writers in AL are Strategy 2 (suggesting inadequate research in a particular aspect) and Strategy 4 (claiming contradictive previous research findings). This is probably because the writers must justify their research project based on the weaknesses or limitations of similar studies already conducted before. In other words, the writers always review relevant studies to search for the gap, and their studies are aimed at filling the gap. According to Swales (1990), the main reason for particular research is to fill in the gap left by previous relevant studies, such as shortcomings, inconsistency, or fault. Belcher (2009, p. 140) also suggests '... you must relate your research to the previous research to be published. According to Belcher (2009), a journal editor and reviewer can accept an article to be published if the writers review the results or findings of previous relevant studies. They have to ensure readers that their research will not only repeat what has been done before and therefore gives an

important contribution to the available knowledge in the literature. Thus, journal readers expect that by reading a particular journal article, their knowledge of a particular topic, case or issue will significantly extend (Arsyad et al., 2018).

These findings also show that international writers publishing in the highest-ranking journals (Quartile 1) used an average of three of the same or different strategies, while writers in lower-ranking journals (Quartile 2, 3, and 4) used only 1 strategy in their introductions. This finding is different from that of Arianto et al. (2021), who found that Indonesian writers publishing in national and international journals used fewer strategies in their RA introductions than international writers. According to Arianto et al., this is because Indonesian writers often avoid negatively evaluating or criticizing the findings of other researchers in the literature. Therefore, they justify their research by using other strategies than showing a research gap. Iranian writers publishing in local journals also used fewer RG strategies compared to native writers in English journals (Farnia & Barati, 2017). Similarly, Jogthong (2001) found that Thai writers avoided criticizing the results or findings of previous relevant researchers in the RA introductions. According to Adnan (2014), this may be because the writers have been affected by their first language culture in which respecting other people, including in academic text, is important. Therefore, they tend to avoid negatively evaluating or criticizing the work of others in their texts. On the other hand, international writers, especially those publishing in high-rank journals, must criticize the work of others to create a niche or space for publication since publishing in a high-impact journal is very competitive (Swales, 2004).

The different frequencies of RG strategy used in Quartile 1 journals and those in lower Quartile journals may show the different quality of the articles published in the journals. As presented in Table 1, the Q1 journals have a higher SJR score than those in Q2, Q3, and Q4. The SJR score is calculated from the transmission of dignity from one journal to another journal; such dignity is transmitted through citations that a journal does to works in other journals and to itself (Scimago Research Group, 2007). According to Falagas et al. (2008), the SJR score is an indicator of a journal's quality by calculating the frequency of quotations to the articles published in the journals and being compared to that of other journals in the same field.

The second objective of this research is to know the linguistics features often used by international writers in AL in addressing the research gap in their article introductions. The results show that the majority of the writers use adversative conjunctions and adjective-modifying nouns to signal their RG strategies. This is probably because authors need to address the research gap in the introduction section and adversative conjunctions satisfy this rhetorical need; that is, to contrast their research focus or objectives and those of previous studies. According to Zhang (2021, p. v), "adversative conjunctions are expressions that indicate semantic relations of contrast between text spans of varying extent". Thus, by using these conjunctions, writers show readers that their research is different from those that have already been conducted because there is a limitation, inconsistency, or fault in the methods or results of the previous relevant studies. In addition, an adjective modifying noun is the second most frequent linguistic feature used by the international writers in AL in their RA introductions to show a research gap. This noun phrase often follows the adversative conjunction to show what research world problems may occur on the same topic that needs further study.



A similar result was found by [Ngadiman and Tanone \(2014\)](#) when they analyzed 20 articles written by English authors from Indonesia and published in six different Indonesian journals. They found 14 types of conjunctions, and 8 of them are classified as adversative conjuncts. They also found that out of the adversative conjuncts, however, was the most frequently used by the Indonesian authors. However, [Ngadiman and Tanone \(2014\)](#) did not discuss why the authors used such conjunction most frequently in their articles. One possible reason is since the authors write in English as a foreign language, they have a limited vocabulary to use and therefore, they use the most common word or phrases. According to [Tovar-Viera \(2018\)](#), it is unavoidable to use worldwide generic formats and conventions, especially in scholarly writing. Therefore, inexperienced or novice writers must follow or adjust their writing style to the discourse conventions in which they intend to publish their research to gain a worldwide reputation for publishing in reputable journals.

## 5. CONCLUSION

Several conclusions can be drawn from the results of this research. First, the most frequent RG strategies used by the international writers in AL are Strategy 2 (claiming insufficient research in a particular aspect) and Strategy 4 (showing contradictive previous research findings). Second, the writers publishing in Quartile 1 international journals used significantly more RGs of the same or different types in their RA introductions; they use an average of three strategies in an article introduction while writers in lower quartile journals use only one strategy. Third, the most frequent linguistic realizations used by international writers to signal their RG strategy are adversative conjunctions and adjective-modifying nouns.

This study, however, only included 40 articles from different quartile journals in Applied Linguistics (ten articles from Quartile 1, ten articles from Quartile 2, ten articles from Quartile 3, and ten articles from Quartile 4 journals). However, this may not represent all journals in the four rankings in the same field. Therefore, future studies have to analyze more extensive samples obtained from more journals to represent the features of the articles in the journals regarding the RG strategies and linguistic features to realize the strategies.

The results of this study have an implication, especially for postgraduate students and young faculty members in writing journal articles. It is suggested that they are familiar with the RG strategies often used by international writers in their fields when writing an article for a reputable international journal. If they use multiple appropriate RG strategies in their RA introduction, the article may be considered for publication in the journal because the multiple and appropriate strategies will help convince editors and reviewers to accept their manuscript for publication. For the teaching of academic writing purposes, such as journal articles, the teachers or lecturers should introduce students to various types of RG and teach them how to write it. Different types of RG may have different impacts on readers, and it may affect the quality of the argument in their article introduction.

## REFERENCES

- Adnan, Z. (2014). Prospects of Indonesian research articles (RAs) being considered for publication in center journals: A comparative study of rhetorical patterns of RAs in selected humanities and hard science discipline. In A. Lyda & K. Warchal (Eds.), *Occupying niches: Interculturality, cross-culturality and aculturality in academic research* (pp. 79-99). Springer.
- Amnuai, W. (2017). The textual organization of the discussion sections of accounting research articles. *Kasetsart Journal of Social Sciences*, 040(2), 389-394. <https://doi.org/10.1016/j.kjss.2017.10.007>
- Arianto, M. A., Saukah, A., Basthomi, Y., & Wulyani, A. N. (2021). Previous studies have several limitations ...: Indonesian doctoral students', Indonesian academics', and international authors' research gap strategies in ELT research article abstracts and introductions. *Journal of Language & Education*, 7(2), 25-44. <https://doi.org/10.17323/jle.2021.11735>
- Arredondo-Tapia, D. I., & Garcia-Ponce, E. E. (2021). Role of task repetition and content familiarity in EFL students' fluency and accuracy in narrative tasks: A case study. *Journal of Language Education*, 7(2), 45-63. <https://doi.org/10.17323/jle.2021.11202>
- Arsyad, S., Zaim, M., & Susyla, D. (2018). Review and citation style in article introductions: A comparative study between national and international English-medium journal in medical sciences. *Discourse and Interaction*, 11(1), 28-51. <https://doi.org/10.5817/DI2018-1-28>
- Astrid, A., Rukmini, D., Fitriati, S. W., & Syafryadin (2021). Experiencing the peer feedback activities with teacher's intervention through face-to-face and asynchronous online interaction: The impact on students' writing development and perceptions. *Journal of Language and Education*, 7(2), 64-77. <https://doi.org/10.17323/jle.2021.10585>
- Belcher, W. L. (2009). *Writing your journal article in twelve weeks: A guide to academic publishing success*. SAGE Publications.
- Brooks, G., Clenton, J., & Fraser, S. (2021). Exploring the importance of vocabulary for English as an additional language learners' reading comprehension. *Studies in Second Language Learning and Teaching*, 11(3), 351-376. <http://dx.doi.org/10.14746/ssllt.2021.11.3.3>
- Chen, X., & Li, M. (2019). Chinese learner writers' niche establishment in the Literature Review chapter of theses: A diachronic perspective. *Journal of English for Academic Purposes*, 39, 48-58. <https://doi.org/10.1016/j.jeap.2019.03.006>
- Cheng, Y., & Uyen, V. D. A. (2020). Needs analysis of Vietnamese Daikin engineers in their workplace: A preliminary study. *Taiwan International ESP Journal*, 11(2), 54-70. [https://doi.org/10.6706/TIESPJ.202012\\_11\(2\).0004](https://doi.org/10.6706/TIESPJ.202012_11(2).0004)
- Corder, G. W., & Foreman, D. I. (2014). *Non-parametric statistics for non-statistician: A step-by-step approach*. John Willey and Sons.
- Deveci, T. (2020). The introduction section of research articles in English and Turkish: The case of educational sciences - a preliminary study. *Eurasian Journal of Applied Linguistics*, 6(1), 119-140. <http://dx.doi.org/10.32601/ejal.710233>
- Drisko, J. W., & Maschi, T. (2016). *Content analysis*. Oxford University Press.

- Falagas, M. E., Pitsouni, E. I., Malietzis, G. A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses. *The FASEB Journal*, 22, 338-342. <https://doi.org/10.1096/fj.07-9492LSF>
- Farnia, M., & Barati, S. (2017). Writing introduction sections of research articles in applied linguistics: Crosslinguistic study of native and non-native writers. *Indonesian Journal of Applied Linguistics*, 7(2), 486-494. <https://doi.org/10.17509/ijal.v7i2.8357>
- Huang, H. (2020). Learning scenarios in an EMI classroom in higher education: Students' perceptions in Taiwan. *The Asian Journal of Applied Linguistics*, 7(1), 60-72.
- Jogthong, C. (2001). *Research article introductions in Thai: Genre analysis of academic writing* [Unpublished doctoral dissertation]. West Virginia University.
- Jung, J. (2021). The role of glossing and working memory capacity in second language reading comprehension. *The Journal of Asia TEFL*, 18(2), 438-450. <http://dx.doi.org/10.18823/asiatefl.2021.18.2.4.438>
- Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes*, 24, 269-292. <https://doi.org/10.1016/j.esp.2004.08.003>
- Lim, J. M. (2012). How do writers establish research niches? A genre-based investigation into management researchers' rhetorical steps and linguistic mechanisms. *Journal of English for Academic Purposes*, 11(3), 229-245. <https://doi.org/10.1016/j.jeap.2012.05.002>
- Miles, D. A. (2017). *A taxonomy of research gaps: Identifying and defining the seven research gaps* [Unpublished work of Doctoral Student Workshop]. Miles Development Industry Corporation.
- Müller-Bloch, C., & Kranz, J. (2015, December 13-16). *A framework for rigorously identifying research gaps in qualitative literature reviews* [Paper presentation]. Proceedings of the 36th International Conference on Information Systems (ICIS), Texas, USA.
- Ngadiman, A., & Tanone, C. (2014). Adversative conjunctions in Indonesian EFL teachers' academic writing. *Magister Scientiae*, 35, 158-172.
- Pratiwi, S. N., & Kurniawan, E. (2021). Rhetorical move and genre knowledge development of English and Indonesian abstracts: A comparative analysis. *Studies in English Language and Education*, 8(3), 885-900. <https://doi.org/10.24815/siele.v8i3.21038>
- Rajabpour, A. (2020). Students' perception on M-reader. *TEFLIN Journal*, 31(2), 277-301. <http://dx.doi.org/10.15639/teflinjournal.v31i2/277-301>
- Ryu, J., & Lee, B. (2021). Diagnosis of Korean EFL high school students' reading fluency using informal reading inventory. *The Journal of Asia TEFL*, 18(2), 489-504. <http://dx.doi.org/10.18823/asiatefl.2021.18.2.7.489>
- Scimago Research Group (2007). *Description of Scimago Journal ranking*. <https://www.scimagojr.com/SCImagoJournalRank.pdf>
- Sung, K. (2021). EFL undergraduate and graduate learners' views on writing intensive online subject matter course. *The Journal of Asia TEFL*, 18(2), 520-543. <http://dx.doi.org/10.18823/asiatefl.2021.18.2.9.520>

- Suryani, I., Yacob, A., & Aziz, N, H. (2015). ‘Indicating a research gap’ in Computer Science research article introductions by non-native English writers. *Asian Social Science*, 11(28), 293-302. <https://doi.org/10.5539/ass.v11n28p293>
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.
- Swales, J. (2004). *Research genres: Exploration and applications*. Cambridge University Press.
- Tovar-Viera, R. (2018). Linguistic realizations of research article abstract written by Ecuadorian and North American academic authors. *Proceedings of the 12<sup>th</sup> Conference in Applied Linguistics for Ph.D. Students* (pp. 82-99). Research Institute of Linguistics, Hungarian Academy of Sciences of Budapest. <http://www.nytud.hu/alknyelvdok18/proceedings/anyd12.pdf>
- Triastuti, A. (2020). Assessing English pre-service teachers’ knowledge base teaching: Linking knowledge and self-portrayal. *TEFLIN Journal*, 31(1), 108-138. <http://dx.doi.org/10.15639/teflinjournal.v31i1/108-138>
- Truong, K. D. (2021). Task-related motivational strategies in EFL classroom: A glimpse into teachers’ and students’ perceptions. *The Journal of Asia TEFL*, 18(2), 468-488. <http://dx.doi.org/10.18823/asiatefl.2021.18.2.6.468>
- Wang, Y. (2020). Emotion and syntactic complexity in L2 writing: A corpus-based study on Chinese college-level students’ English writing. *The Asian Journal of Applied Linguistics*, 7(1), 1-17.
- Zhang, Y. (2021). *Adversative and concessive conjunctions in EFL Writing: Corpus-based description and rhetorical structure analysis*. Springer.

## APPENDICES

### Appendix A. Research gap strategy checklist.

No.	Strategies	Description	Examples
1.	Nonexistent research	Claiming nonexistence of research bearing a particular characteristic or that the proposed topic has not been conducted by previous researchers	They have not, <b>however</b> , explicitly addressed how wiki-mediated collective production helps individual L2 writing performance. The present study aims to fill this gap.
2.	Inadequate research	Claiming inadequate research on a specific aspect or a limited number of studies (e.g., prediction of absenteeism)	Although students are the key players in pair or group work, <b>little is known</b> about their perceptions of or attitudes towards collaborative writing and how these factors influence patterns of interaction and language learning opportunities during such activities.
3.	Limitation in previous studies	Revealing limitation/s in previous research or identifying shortcomings from previous research, such as in classification, methodology, etc.	The previous studies give insight into that in translating cultural humor into the graphic novel...the translator should consider the paralinguistic elements... <b>However, different from the previous studies</b> , this present study recognized the challenge of translating cultural humor by applying Vandaele’s (2002) humor translation theory and classifying the data findings using

## Appendix A continued...

			Newmark (1988, p. 95) proposes five cultural categories of the translation of 'foreign' cultural words.
4.	Contradictive evidence	Contradictive or conflicting previous research findings or finding similarities and differences among previous research findings.	The findings of the studies reviewed above indicate that the effect of gender on the choice of speaking strategies is <b>not yet conclusive</b> and that the correlation between speaking strategies and speaking proficiency is <b>not yet clear</b> .
5.	Suggesting solution/s	Suggesting solutions or Proposing techniques, methods, or any solutions to solve problems either from real phenomena or previous research studies	Despite this gap in the research literature, many textbooks <b>suggest</b> the use of collaborative writing tasks for pre-and in-service teachers (Ferris and Hedgcock, 2013: Peregoy and Boyle, 2012).
6.	Continuing previous studies	Adding to the available knowledge from the results of previous studies or continuing the previous research projects	The importance of this study is that it provides an examination of the extent to which the procedural repetition of narrative tasks shapes AF levels in the students' classrooms. Moreover, this study contributes to existing knowledge on the interaction of AF in tasks whose design is complex, in other words, "the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner" (Robinson, 2001, p.29).

## Appendix B. Linguistic Realizations (LR).

No.	Linguistic realization	Examples
1.	Adversative conjunctions plus a clause	... <b>however</b> , there has yet to be a detailed analysis of teachers' corrective feedback practice through, for example, an analysis of the teacher feedback corpus.
2.	Adversative conjunctions plus a prepositional phrase	... <b>despite</b> the existence of informative studies <b>on various issues on writing done by college EFL learners</b> , ...
3.	Adjective modifying nouns	In the study of second language reading and education, however, ORF has been <b>relatively less scrutinized</b> as a predominant characteristic until very recently, ...
4.	Negation	Don's (2017) discussions of 'status' and 'contact' are highly relevant to the present study. However, Don (2017) <b>does not</b> develop system networks for her work on alignment.
5.	Phrases denoting uncertainty	However, previous studies have not differentiated these two kinds of knowledge, which may partly add to their <b>inconsistent results</b> .
6.	Phrases denoting suggestion	...suggests to...; ...would better to...; The suggestion is...
7.	Phrases denoting a need for further study	This article <b>will extend</b> the use of the framework to focus on children's use of evaluative language with their peers, rather than with an adult, and in play, rather than in a formal literacy learning context. Three questions are addressed.