Modern English Education

Exploration of the Act of Exemplification in Research Article Introductions

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Na, Yoon-Hee. (2023). Exploration of the act of exemplification in research article introductions. *Modern English Education*, *24*, 284-304.

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Abstract
The act of exemplification has been recognized as an important rhetorical device for clarity and persuasion in academic writing. The purpose of the present study is to explore the use of exemplification in the introduction sections of research articles (RAs). Using a corpus of 60 RA introductions in the field of Applied Linguistics, this study examined the act of exemplification, with a focus on the lexico-grammatical features of exemplification, rhetorical functions served by exemplification, and semantic resources of exemplification utilized in different move-steps of this part-genre. The results indicate that RA writers used a limited set of exemplification markers and grammatical categories in the exemplified and the exemplifying units that constitute the act of exemplification. Furthermore, the analysis revealed that the roles of exemplification varied across move-steps embedded in the RA introductions, serving different rhetorical purposes with various types of semantic resources such as concept-related, method-related, real-world-related subcategories, relevant studies, and elaborating statements. Based on the findings, the study offers pedagogical implications for English for Academic Purposes (EAP) instruction.

INTRODUCTION

English for Academic Purposes (EAP) research has recently focused on investigating lexico-grammatical features of academic writing such as lexical bundles (e.g., Cortes, 2013; Hyland, 2008), phraseology (e.g., Cunningham, 2017; Le & Harrington, 2015), and syntactic complexity (e.g., Lu et al., 2020; Saricaoglu et al., 2021). While some studies have also considered interpersonal aspects of academic writing within the framework of metadiscourse (e.g., Hyland, 2004; Kawase, 2015), the act of exemplification on its own seems to have been largely neglected in EAP research. Only recently, the act of exemplification has been recognized as an important communicative or rhetorical strategy that is employed by the writer "to illustrate or support an argument, a viewpoint, an observation etc., or to present subordinate categories or subtypes to clarify or specify abstract, superordinate ones" (Su et al., 2022, p. 1). Existing research has showed that along with other similar acts of text elaboration like definition and reformulation, exemplification is frequently performed in academic writing and contributes to the accessibility and persuasiveness of texts (e.g., Hyland, 2007; Paquot, 2008, 2010; Su & Zhang, 2020). As an overarching feature of human interaction and an important rhetorical tool for clarity and persuasion, exemplification, especially in a genre of research articles (RAs), serves to "facilitate comprehension of terms, concepts, and statements or to support claims and arguments" (Triki, 2021, p. 1).

The act of exemplification merits close investigation for several reasons. First, exemplification is a recurrent feature in academic writing across various disciplines. For example, Siepmann (2005) notes that exemplification is particularly prominent in Humanities texts. Similarly, Paquot (2010) observes that presenting examples is much more prevalent in academic texts than in other genres like conversation and fiction. Secondly, exemplification performs a number of important functions in academic writing. Hyland (2007), for instance, argues that offering examples with specific descriptions can make technical argument or abstraction more accessible to the reader. In a similar vein, Hinkel (2004) suggests that "providing contextually relevant examples and illustrations represents a reasonable and valid means of thesis support in explaining one's position on an issue" (p. 283). Su and Zhang (2020) and Triki (2021) also note that by means of exemplification, writers can create an important channel to clarify abstract concepts, to support arguments or viewpoints and, ultimately, to ensure the persuasiveness and accessibility of academic texts. Thirdly, despite the prevalence and importance of exemplification in academic texts, second language (L2) writers have been reported to experience difficulties in performing the act of exemplification. For example, Paquot's (2008) investigation indicates that L2 writers' repertoire of exemplifying lexico-grammatical features is far more limited than that of their first language (L1) counterparts. A study by Su et al. (2022) also showed that compared to L1 expert writers, L2 student writers were not familiar with the structures and strategies for performing exemplification in academic writing. These researchers suggest that a thorough investigation into exemplification in academic writing is itself a worthwhile undertaking since it could help to systematically document the lexico-grammatical features that are available to perform exemplification. Findings from investigations of this kind could also inform the teaching and learning of exemplification in EAP contexts (Su & Zhang, 2020; Zhang & Su, 2021).

Another reason for focusing on exemplification relates to the corpus methodology. Exemplification has been shown to be typically signaled by a set of explicit lexical markers. Studies like Paquot (2008, 2010) and Su and Zhang (2020) initiated their investigations of the act of exemplification with a set of exemplification markers such as *for example, for instance*, and *such as*. Moreover, Triki (2021) points out that using an explicit indicator when exemplifying is a norm in academic writing. Since the current investigation uses corpus data to investigate expert writers' act of exemplification in their RA introductions, the observation that exemplification is typically signaled by lexical markers suggests that it is amenable to corpus search which in turn allows for more in-depth analyses into the lexico-grammatical and semantic features of exemplification in co-textual contexts as well as in broader rhetorical contexts.

Notwithstanding its prominence and importance in academic writing, challenges faced by L2 writers, and appropriateness for the corpus search, exemplification on its own has been underexplored in EAP research. Most of the studies (e.g., Ha & Jwa, 2019; Hyland & Tse, 2004; Kawase, 2015) which addressed exemplification have traditionally treated exemplification as one of the many interpersonal resources within the metadiscourse framework. Only a few studies (e.g., Paquot, 2008, 2010; Rodriguez-Abruneiras, 2019) investigated exemplification as a stand-alone communicative act in itself but they focused exclusively on the use of exemplification markers rather than the overall elements that constitute exemplification in their studies. One notable exception is a recent study conducted by Triki (2021) who investigated exemplification in terms of three essential elements of exemplification (namely, exemplified units, exemplification markers, and exemplifying units). She offered an analytical framework that can investigate the lexico-grammatical features of exemplification by scrutinizing the grammatical categories (such as nominal groups and clauses) embedded in each element of exemplification and reported important findings on how these elements are used in what sequences and combinations. Although helpful in uncovering the lexico-grammatical features of exemplification, this study nevertheless fell short of providing functional or rhetorical aspects of exemplification. In fact, there is little research that investigates the act of exemplification from a functional or rhetorical perspective.

It is worth, however, mentioning that some recent EAP studies have attempted to analyze lexico-grammatical features (e.g., lexical bundles, phraseological features, syntactically complex sentences) in terms of the rhetorical functions they realize in academic writing (e.g., Cortes, 2013; Lu et al., 2020; Zhou et al., 2023). In response to the call for more research to address the "function-form gap" (Moreno & Swales, 2018, p. 41) in genre analysis research, a recent study by Lu et al. (2021) examined interdisciplinary variation in the connection between phrase-frames and rhetorical move-steps in RA introductions. The expansion of rhetorical or functional analyses of linguistic forms in RA introductions to the syntactic level has also occurred recently. Zhou et al. (2023), for instance, investigated the rhetorical functions of syntactically complex sentences in RA introductions of six different science disciplines. Their analyses indicated that indices of syntactic complexity varied significantly among the rhetorical move-steps. These studies as a whole have drawn on and adapted Swales' (1990, 2004) Create a Research Space (CARS) model in their investigations of the connections between the rhetorical move-steps and linguistic or syntactic features in the part-genre of RA introductions. In fact, rhetorical move analysis, especially Swales' CARS model, has long been adopted as a means of analyzing disciplinary genre practices, with emphasis placed on writers' recurring rhetorical or communicative purposes and the linguistic features they use to realize such goals. A major component of the model is rhetorical moves which are "discoursal or rhetorical units performing

coherent communicative functions in texts" (Swales, 2004, pp. 228-229). A rhetorical move can subdivide into steps that serve to "achieve the purpose of the move to which it belongs" (Biber et al., 2007, p. 24). Despite the recent efforts made to address the connection between lexico-grammatical features and rhetorical move-steps in RA introductions, little attention has been paid to the analysis of communicative or metadiscourse acts such as definition, reformulation and exemplification in connection to the rhetorical functions in RA introductions. The present study aims to fill this research gap by connecting the lexico-grammatical and semantic features of exemplification to the rhetorical functions realized in different move-steps in the introduction sections of RAs. The following research questions guided the study:

1) What lexico-grammatical features are used to realize the act of exemplification in RA introductions?
2) What rhetorical functions are performed through the act of exemplification across different move-steps of RA introductions?
3) What semantic resources are employed to exemplify across different move-steps of RA introductions?

The broad objectives of this study are (1) to describe how the act of exemplification is realized by scrutinizing the lexical-grammatical properties of exemplification with a focus on the nature of the three obligatory elements of exemplification (i.e., exemplified units, exemplification markers, and exemplifying units), (2) to describe how the act of exemplification is used to perform the broad rhetorical functions of move-steps in RA introductions, and (3) to explain for what purposes and with what semantic resources the act of exemplification is realized in each of the move-steps that constitute the rhetorical structure of RA introductions.

LITERATURE REVIEW

Conceptualization of Exemplification

Exemplification has traditionally been considered as appositive (Quirk et al., 1985), where "the second unit of text is to be treated as equivalent to or included in the previous unit" (Biber et al., 1999, p. 876). A number of exemplification markers were classified as "appositive conjuncts" in Quirk et al.'s (1985, p. 1308) terms, forming a scale. While appositives such as *that is, namely,* or *in other words* express the semantic relationship of equivalence and thus are treated as most appositive on the scale, the indicators of exemplification such as *such as, like*, and *including* are considered as the least appositive on the scale. Similarly, these markers were also referred to as "adverbials of apposition" in Biber et al. (1999, p. 876). This conceptualization, however, is too restrictive, given that exemplification can also occur across sentence boundaries (Burton-Roberts, 1993; Triki, 2021), and too limited in its scope by focusing only on a set of exemplification markers.

A broader concept of exemplification has been intensely discussed for the last few decades in several fields of study such as discourse studies, metadiscourse studies, functional linguistics, and academic writing. In discourse studies, Lyons (1989, p. x), for example, posited that "an example is a dependent statement qualifying a more general and independent statement by naming a member of the class established by the general statement" and thus "cannot exist without a general statement and an indication of this subordinate status." This view is shared by Lischinsky (2008) who argued that despite their concrete nature, examples are always linked to the construction of the general rules constituting proposition or semantic knowledge. Longacre (1983) also regards exemplification as a case of illustration or an elaborative device, characterized by the addition of concrete information to an abstract concept. Taken as a whole, the basic premise that examples are always constructed in relation to abstract or general information, and that it is discursive goals rather than specific linguistic cues that reveal exemplification is rooted in this line of discourse research.

In another line of research, the concept of exemplification is mostly addressed within a metadiscourse framework. Metadiscourse is based on the view that there are two levels of communication which take place simultaneously in a communicative event. On one level, the writer communicates propositional content, and on the other level, he or she uses cues to guide the reader through the text and steers him or her towards the preferred interpretation of the propositional content (Hyland & Tse, 2004). This view has been widely discussed and applied to academic genres including RAs, alluding to the possibility of metadiscourse features facilitating the reader's comprehension of texts, enhancing the writer's credibility, and increasing persuasiveness of texts. In addition, there is a consensus among researchers that metadiscourse has two dimensions: interpersonal and interactional. Interpersonal dimensions help guide readers through the text while interactional dimensions enable the writer to intrude into the text and actively engage the reader (Hyland, 2005; Hyland & Tse, 2004). Within the interpersonal dimensions, exemplification is a subcategory of Code Glosses along with reformulation. Hyland (2005) characterizes Code Glosses as supplying "additional information, by rephrasing, explaining or elaborating what has

been said, to ensure the reader is able to recover the writer's intended meaning" (p. 52). Exemplification as one of the subcategories of Code Glosses within the metadiscourse framework refers to "communication process through which meaning is clarified or supported by a second unit which illustrates the first by citing an example" (Hyland, 2007, p. 270). In other words, by using exemplification, the writer, aware of the evolving text and the need to guide the reader through the text, elaborates on the argument or concept made by giving specific examples. Hyland (2007) further argues that "writers who can successfully predict something of their readers will know of their subject and expect of its presentation are more likely to be convincing" (p. 267). However, the reliability of a claim or an argument can be severely hampered unless it is supported by specific evidence or a concrete example presented by the writer who is aware of the reader's needs for clarification. One limitation in the conceptualization of exemplification from the metadiscourse framework is that it tends to be treated as one of the many categories under the rubrics of interpersonal and interactional dimensions of metadiscourse, rather than being perceived as an important communicative or metadiscourse act on its own.

Seen from a Hallidayan systemic functional grammar (e.g., Halliday, 1994), metadiscourse is perceived in relation to the following three communicative functions of language: (a) the ideational function: the use of language to represent experience and ideas, (b) the interpersonal function: the use of language to encode interaction and express evaluations and feelings, and (c) the textual function: the use of language to organize the text coherently. In earlier models of functional grammar (Vande Kopple, 1985), various forms of code glosses, including exemplification, are believed to mainly serve the textual function of language, by focusing on the way discourse is organized in a text and how its different units can be cohesively interconnected. Halliday (1994), with regard to exemplification, perceived its role primarily as ideational or propositional expansion referred to as "a semantic relationship of elaboration, where one clause elaborates on the meaning of another by further specifying or describing it" (p. 225). It appears that the majority of these earlier functional theorists have adopted the notion that metadiscourse including exemplification does not primarily serve an ideational function but performs textual and interpersonal functions.

It should be noted, however, that separate analyses of metadiscourse items with single functions could lead one to miss the possible interactions between them (Hyland & Tse, 2004). This point is also suggested by Hyland (2005) who argues that "discourse is a process in which writers are simultaneously creating propositional content, interpersonal engagement, and the flow of text as they write" (p. 27). In his conceptualization, propositional or ideational content does not exclude much of what is generally regarded as metadiscourse. Both propositional and metadiscourse segments can occur together in academic texts, even in the same sentences. Like propositional content, metadiscourse can also communicate the writer's intended meaning to the reader in a given situation. Therefore, a rigid conceptual separation between proposition and metadiscourse, as Hyland (2005) cautions, may relegate metadiscourse to an extra commentary on the main informational content of the text rather than seeing it as an integral part of constructing meaning. A more recent conceptualization of metadiscourse including exemplification suggests that metadiscourse is not simply the glue that holds the more important parts of the text together, but is itself a crucial element of its meaning (Hyland & Tse, 2004). The present study is based on this conceptualization of metadiscourse including exemplification as an important act that serves a crucial function in itself.

In the field of academic writing or EAP as well, there is a consensus among researchers that, based on their assumptions of their readers, writers constantly monitor their unfolding text to identify where the readers will need help in understanding their claims or arguments, where greater elaboration or specificity is required, and where clarification or concrete examples are needed (Blakemore, 1997; Guziurova, 2022; Lischinsky, 2008; Triki, 2021) In such interactive processes, exemplification constitutes a central means of persuasion with which writers seek to make their arguments accessible to their readers in their discourse communities. Furthermore, this conceptualization of exemplification is line with recent endeavors which seek to "recover the link between the ways writers intrude into their texts to organize and comment on it so that it is appropriate for a particular rhetorical context" (Hyland & Tse, 2004, p. 161). Seen from this perspective, the importance of the act of exemplification lies in its underlying dynamics which relate it to the rhetorical contexts in which it is embedded.

Empirical Studies on Exemplification

Several empirical studies (Guziurova, 2022; Ha & Jwa, 2019; Jwa & Ha, 2020; Kawase, 2015) have traditionally investigated exemplification as one of the subcategories of Code Glosses in their examination of a whole range of metadiscourse features (i.e., interpersonal and interactional dimensions) in academic texts. In their primary aims of uncovering how a variety of metadiscourse features are used in RAs of different disciplines or of different groups, these studies focused exclusively on the most salient features of metadiscourse, that is, the use of explicit metadiscourse markers of each category in terms of the frequency distribution of those markers. For instance, Jwa and Ha's (2020) study

investigated the general patterns of metadiscourse use in L2 students' RA introductions by counting the occurrences of discourse markers for each category. Their analysis revealed that transitions, evidentials, code glosses, hedges, and attitude markers exhibited a high density in student RAs. Some other studies have explored the formal or lexico-grammatical realizations of exemplification. Hyland (2007), for example, investigated how RA writers presented examples to illustrate their propositions or arguments. He found that exemplification is frequently signaled by a limited number of lexical items, or exemplification markers (e.g. *for example, for instance, such as, e.g., an example of*). The analysis further showed that exemplification in academic writing served three main purposes: (1) offering an instance of a general category, (2) providing a parallel or similar case, and (3) giving a precept or rule. Although Hyland provided a framework in which exemplification can be classified according to its overall rhetorical functions by showcasing some examples from the corpus, he did not provide any frequencies for their occurrence and distribution of those functions within his corpus. Another study conducted by Paquot (2008) focused on five typical lexical items realizing exemplification (i.e., *for example, for instance, illustrate, exemplify, example*) and examined the use of phraseologies of exemplification across L1 and L2 writers' texts. Paquot (2010), in her later study, has further focused on exemplification markers and their roles in organizing academic discourse, by categorizing ways of expressing exemplification into nouns (*example, illustration, a case in point*), verbs (*illustrate, exemplify*), prepositions (*such as, like*), and adverbs (*for example, for instance, e.g., notably, to name a few, and by way of illustration*). In terms of roles of each group of exemplification markers, she described the role of the adverb (e.g., *for example, for instance*) as "supplying additional information, by rephrasing or explaining or elaborating what has been said" and the role of the verb (e.g., *exemplify, illustrate*) as being "a very typical example of something." As such, the author attempted to account for different meanings conveyed by different types of exemplification markers.

Although the above-mentioned studies have well documented a set of lexical items that are frequently employed to perform the act of exemplification in academic writing, they are insufficient in addressing the whole range of grammatical elements that are used to realize the act of exemplification. In fact, the general tendency to perceive the explicit markers as the carriers of the metadiscourse meaning can be misleading, given that the markers themselves are only signals for the act of exemplification, and the elements of being exemplified or exemplifying are rather situated before or after these markers. Triki (2021), in this regard, investigated the three units of exemplification (i.e., exemplified units, exemplification markers, and exemplifying units). The exemplified and the exemplifying units were analyzed in terms of their grammatical structures (e.g., noun phrases versus clauses). The exemplifying units were further analyzed into different types, focusing on whether the examples are references, abstract or concrete entities, real or hypothetical situations or extracts from other sources or their own work.

In a similar vein, several recent studies on exemplification have been conducted from a local grammar perspective. In this analytical approach, the exemplification markers were first identified and local grammar patterns of exemplification were then analyzed. Su and Zhang (2020), for example, in their investigation of exemplification in Linguistics RAs, found 3,315 instances of the use of exemplification and eight exemplification markers (*e.g., such as, for example, illustrate, for instance, an example of, exemplify* and *an instance of*). The analysis indicated that exemplification was realized in 17 different structural patterns. The most common pattern they identified was "Exemplified-Indicator-Exemplification" in which writers exemplify or illustrate a superordinate category by giving examples of subordinate categories or by citing relevant studies. In another study, Su et al. (2021) applied the local grammar perspective to the diachronic investigation of exemplification in RAs. The authors compiled two corpora of RAs published in the journal of Applied Linguistics, by focusing on two 15-year time periods, one from 1980 to 1994 and the other from 2000 to 2014. They used the same exemplification markers identified by Su and Zhang (2020) and retrieved 6,242 and 9,958 instances of exemplification in each corpus. They identified a total of 37 local grammar patterns of exemplification in both corpora. The diachronic investigation reveals that, while the overall frequency of exemplification in Applied Linguistics RAs has remained relatively stable over time, some significant changes have occurred in the specific ways academic writers exemplify. In particular, academic writers in recent years tend to exemplify in simpler and more explicit ways. In addition, while they continue to exemplify primarily by presenting subcategories, they nowadays also use relevant studies to illustrate arguments or viewpoints more frequently than before. Even though the authors working from a local grammar perspective claimed that the terms used for the structural analysis of exemplification (e.g., Exemplified, Indicator, Exemplification, Hinge, Initiator, etc.) are context-specific and self-explanatory, the context they considered in their analysis of exemplification was mostly limited to a local sentence-level discourse context rather than a broader rhetorical context. Therefore, one potential limitation of these studies is that they have not adequately accounted for the use of exemplification at a higher level of discourse, i.e. at the generic or rhetorical move-step level.

As can be seen from the review of the existing research, despite the growing interest in connecting syntactic or lexico-grammatical features of RAs to the specific rhetorical functions they are deployed to realize and showcasing the pedagogical usefulness of fostering novice academic writers' awareness of such connections (e.g., Cortes, 2013; Lu et al., 2020; Na,

2019), research on exemplification in that direction is still scant. The current study aims to fill this gap by examining the act of exemplification in connection to rhetorical strategies and semantic resources as well as its lexico-grammatical realizations in the introduction sections of RAs.

METHOD

Corpus Data

A total of 60 RAs published during the year of 2021 in the field of Applied Linguistics comprise the corpus of the study. The RAs were chosen from internationally referred journals based on the ranking and impact factors in the Journal Citation Reports (2021). The selected journals (*Applied Linguistics, TESOL Quarterly, The Modern Language Journal*) are all ranked 15th, 20th, and 3rd respectively among 194 journals in the field of Linguistics and their impact factors are 4.155, 3.410, and 7.500, respectively. Although the three journals have different purposes and preferred areas of inquiry, they represent the broad field of Applied Linguistics. The three journals publish all types of empirical articles including quantitative, qualitative, and mixed-method studies and those empirical studies were used for the data of the present study. Theoretical and review articles were excluded from the scope of the present study. Out of the RAs that were classified as empirical research, only the ones that have a separate introduction section were compiled and 20 from each of the three journals were randomly selected, constituting 60 introductions. The corpus consists of 277,157 words, excluding the words appearing in footnotes, headers, tables, figures, and the direct quotations from other sources. The mean length per introduction is about 1,764 words.

Although the corpus of the present study is relatively small, its restricted corpus size renders itself to an individual scrutiny of every case of exemplification with its co-textual or contextual considerations which in turn allows for an in-depth analysis of the act of exemplification in terms of rhetorical functions of move-steps embedded in the RA introductions. Studies on similar discoursal or metadiscoursal features have also shown that such corpus sizes and sometimes even smaller corpus can reveal the overall patterns and dominant features of use (e.g., Bhatia, 2005; Samraj, 2005).

Data Analysis

For the analysis of the data, all 60 RAs were firstly read by the researcher in their entirety before the introduction sections were scrutinized. After ensuring that a holistic understanding of the RAs was gained, the analysis of exemplification in the introduction sections was conducted. The texts were searched for specific features which could potentially act as exemplification. As noted in previous studies, exemplification is typically signaled by a set of exemplificatory markers. Therefore, building on such studies (e.g., Biber et al., 1999; Halliday, 1994; Hyland, 2004, 2007; Paquot, 2008, 2010; Quirk et al., 1985; Su & Zhang, 2020; Su et al., 2021; Triki, 2021), a list of potentially productive lexical items was compiled. The researcher searched for them and their possible variants to retrieve instances of exemplification in the corpus. While searching for such pre-determined exemplification markers allowed the researcher to efficiently identify a substantial set of instances of exemplification, there was also a possibility that some instances of exemplification which do not co-occur with these pre-determined markers might be left out. Therefore, care was taken to ensure that any markers that were not listed in previous studies but that nevertheless could potentially serve as indicators of exemplification must be detected in a close scrutiny of the texts themselves. The marker, *among others*, which has not been identified as an explicit exemplification marker in previous studies, was found to serve as an exemplification marker in the present corpus and thus it was decided to include this marker in the present analysis.

After identifying all the cases of exemplification markers in the corpus, an analysis of grammatical forms of exemplification elements was conducted, drawing on Triki's (2021) analytical framework. According to her framework, in any form of exemplification, there are three compulsory discourse units, that is, the exemplified unit, the exemplification marker and the exemplifying unit. Since exemplification is used to aid comprehension by giving an example of the general concept/term or point/argument the writer has made, the part which needs further elaboration or clarification is referred to as "the exemplified unit." The unit that signals the act of exemplification is referred to as "the exemplification marker," which served as the starting point of the identification of exemplification. Lastly, the example itself which illustrates the general concept/term or the point/argument that the writer has made is referred to as "the exemplifying unit." The analysis of the three elements focused on uncovering the lexico-grammatical features of exemplification, namely, what lexical items are used as exemplification markers and how the exemplified and exemplifying units are realized in the grammatical forms of nouns, nominal groups, prepositional phrases, or clauses.

With regard to a move-based analysis of exemplification, all the identified exemplification segments were then categorized by using the names of the specific moves and steps in which they occur. The names and goals of moves and steps where each exemplification is embedded were mostly adapted from Swales' (1990, 2004) CARS model and the subsequently revised models by Cortes (2013) and Lu et al. (2020). The Create a Research Space (CARS) model proposed by Swales (1990, 2004) for analyzing the rhetorical move structures of RA introductions has played a prominent role in the genre-based research. Broadly speaking, the model was designed to "describe the communicative purposes of a text by categorizing the various discourse units within the text according to their communicative purposes" (Biber et al., 2007, p. 23). Those discourse units are referred to as "moves" (Swales, 2004). Although the term "move" has sometimes been aligned with a grammatical unit such as a sentence, utterance, or paragraph, it is better seen as flexible in terms of its linguistic realization. At one extreme, it can be realized be a clause; at the other by several sentences or a whole paragraph. A rhetorical move is then subdivided into steps that serve to accomplish the purpose of the move. Swales identified three moves, with each move having some steps while serving a specific rhetorical function. In Move 1 (Establishing a Territory), RA writers situate their work in the related research field mainly by demonstrating their topic's centrality and importance or contextualizing their research in the real-world. In Move 2 (Establishing a Niche), writers then create space by indicating gaps in the research area or providing positive justification. In Move 3 (Presenting the Present Research), writers present their research by stating the purpose of their study and other key features of their study or stating the value of their research.

In the process of coding the move-step categories where exemplification is embedded in the present study, the Swales' (1990, 2004) model was modified by merging some steps and adding new steps in order to account for the full range of rhetorical acts identified in the corpus. For example, the first step of Move 1 was split into Step A: "Claiming Centrality" and Step B: "Real-world Contextualization" to account for notable differences in how RA writers use other relevant studies or real-world problems as primary examples for the motivation of the study. Following the recommendation of Swales (1990, 2004) and Moreno and Swales (2018), the rhetorical chunk was adopted as the unit of rhetorical move analysis, proceeding from the step up to the move level. This entails a close analysis of linguistic, syntactic, and content oriented cues to shifts in the rhetorical purposes of RA writers. To facilitate the judgement of how exemplification is deployed in the realization of writers' rhetorical goals, the whole paragraph where exemplification was located or several paragraphs were often read and scrutinized for the investigation.

After identifying moves and steps where exemplification was embedded, each exemplification was then coded in terms of their roles and semantic resources. Since there were no pre-determined categories of the roles and semantic resources of exemplification suggested in previous studies, the analysis of these dimensions was inductively conducted by paying close attention to the rhetorical contexts where they were used. The role of exemplification embedded in the step of "Claiming Centrality" in Move 1, for example, was identified as supporting centrality/value claims. Other roles such as illustrating real-world contexts, supporting generalizations, supporting gap-indication, supporting justification, elaborating elements of present work, or supporting value statements were inductively identified in the present corpus. As for the semantic resources that are deployed to realize the act of exemplification embedded in each move and step, previous research has only made a distinction between relevant studies and subcategories (Su & Lu, 2022; Su & Zhang, 2020). The distinction is made based on the observation that in RAs writers usually illustrate an argument by citing relevant studies or specify superordinate types or categories by presenting subordinate ones. However, in the present study, a more fine-grained analysis of semantic resources embedded in each move and step was conducted, drawing on Na's (2019) analysis of the semantic resources deployed in the Commenting on Results move in the discussion section of RAs. Since there were no pre-determined categories for describing various types of semantic resources for exemplification in the introduction section of RAs, the researcher coded the identified categories as the following:

(a) Relevant Studies (RS): Relevant studies/references that specify or illustrate the theory, argument or observation

(b) Subcategories (CR): Concept-related entities (concepts, theories, phenomena, terms, etc.) that specify or illustrate the theory, argument or observation

(c) Subcategories (MR): Method-related entities (variables, tests, analytic frameworks, measurement tools, data sources, analysis procedures, etc.) that specify or illustrate the theory, argument or observation

(d) Subcategories (RW): Real-world or real-life related concrete entities (specific problems, issues, contexts, etc.) that illustrate real-world concerns, problems, or issues

(e) Subcategories (PW): Present-work related entities that illustrate the present research

(f) Elaborating Statements (ES): Writer's elaborating/illustrating statements that clarify or support the theory, argument or observation

In the whole process of data coding for the lexico-grammatical features and rhetorical functions and semantic resources for exemplification, the primary focus was on conducting a context-embedded analysis of these features. Although only 60 RA introductions were examined, a great deal of in-depth data was obtained since the manual analysis of context-based roles and semantic resources was very detailed and entailed careful examination of every case of exemplification within a sentence, across sentences, and even across paragraphs. In order to ensure intra-coder reliability, the researcher coded all the exemplification features of the corpus and then re-coded them in their entirety a month later. The intra-coder agreements in the lexico-grammatical features and the move-based rhetorical features were 100% and 97.97%, respectively.

RESULTS AND DISCUSSION

As shown in Table 1, a total of 246 exemplifications were identified in the corpus of 60 RA introductions. On average, approximately 6 exemplifications have been employed in every 1,000 words. The mean occurrence of exemplification in each introduction section was found to be about 4. Furthermore, all of the introductions included instances of exemplification. The lowest and highest number of exemplifications in an introduction were 2 and 13, respectively. The frequency of exemplifications indicates that exemplification is a prominent feature in the introductions of RAs in the field of Applied Linguistics.

TABLE 1
Frequency of Exemplification in RA Introductions

Types of Frequency	Number of Exemplifications
Raw frequency	246
Frequency per 1,000 words	6.04
Mean frequency per introduction	4.10

Lexico-grammatical Analysis of Discourse Units for Exemplification

The lexico-grammatical analysis of exemplification was conducted on the basis of Triki's (2021) analytical framework in which three obligatory discourse units (the exemplified unit, the exemplification marker and the exemplifying unit) that constitute the act of exemplification were scrutinized for their grammatical features and typical patterns. The results of the analysis into these elements will be presented, with examples taken from the present corpus. For ease of reference, following Triki (2021), the exemplified unit is in italics, the exemplification marker is in bold, and the exemplifying unit is underlined. Since exemplification is signaled by a set of explicit markers, the findings will be presented in the order of exemplification markers, the exemplified units and the exemplifying units.

Exemplification Markers

In the present corpus, RA writers used ten different lexical items as exemplification markers that are structurally categorized into groups of nouns (*an example, an instance*), verbs (*exemplify/illustrate* and their passive counterparts), prepositions (*such as, like, including*), and adverbs (*for example, for instance, among others, particularly/in particular*). In line with Meyer's (1992) and Hyland's (2007) observations that exemplification is typically signaled by a small number of explicit exemplification markers, the present corpus contained only 10 lexical items that served as exemplification markers. Furthermore, out of the 10 lexical items, the top 5 items (*e.g., such as, including, for example*, and *like*) accounted for almost 94% of the total occurrences of exemplification in the present corpus of RA introductions. In Table 2, lexical items that serve as exemplification markers in the present corpus are ordered by decreasing relative frequency.

TABLE 2
Frequency of Exemplification Markers Used in RA Introductions

Lexical Items of Exemplification Markers	Number (Percentage) of Exemplification Markers
e.g.	130 (52.85%)
such as	47 (19.11%)
including	22 (8.94%)
for example	19 (7.72%)
like	12 (4.88%)
for instance	6 (2.44%)
particularly/in particular	5 (2.03%)
among others	3 (1.21%)
an example/instance (of)	1 (0.41%)
exemplify/illustrate (be exemplified/be illustrated by/in)	1 (0.41%)
Total	246 (100%)

Overall, four exemplification markers (*e.g., such as, including*, and *for example*) account for more than 88% of all instances of exemplification in the corpus, a result that confirms Hyland's (2007) findings which indicate that three quarters of the examples studied in his corpus were introduced by these markers except for *including*. Yet, some differences concerning frequencies of these markers are recorded in the present study. Although Rodriguez-Abruneiras (2015, p. 131) argued that "the use of *e.g.* is not advisable in most text-types, and even in formal and scholarly texts," it ranks first with more than 52% in the present corpus. In this regard, Triki (2001) points out that *e.g.* is mainly used in the soft fields such as Linguistics, Marketing, and Economy in her corpus. The use of the abbreviation *e.g.* in the present corpus of RA introductions was restricted exclusively to parentheses, which corresponds with Triki's (2021) and Guziurova's (2022) latest findings on exemplification markers. All 130 cases identified in the present corpus occurred in parentheses, typically introducing a reference to other sources or a nominal group. Out of the 130 cases, expert writers used *e.g.* predominantly with references (93%) to support their arguments or situate their research within a discipline. Only 7 % of the occurrences of *e.g.* were used to introduce a nominal group. Examples 1 and 2 illustrate the citational or nominal exemplification of *e.g.*, respectively.

Example 1: Research on translanguaging pedagogy is predominantly ethnographic and has focused on language practices in classrooms serving bilingual students (**e.g.**, Durán & Palmer, 2014; Garza & Arreguín-Anderson, 2018; Sayer, 2013).

Example 2: However, rating scales typically place heavy weighting on *production features* (**e.g.,** pronunciation, fluency, grammar).

As in Example 1, RA writers gave examples of relevant studies which support the facts, findings, or observations upon which the writers built their arguments. They also gave examples of studies which dealt with the central issue discussed or they also directly referred their readers to further sources dealing with the topic (introduced by the verb *see e.g.*), thus contextualizing their research within a discipline as a whole. Although not frequent, RA writers used *e.g.* to introduce specific subcategories of some abstract concepts like *production features*, as in Example 2.

As the second, third, and fifth most frequent exemplification markers, *such as, including,* and *like* were mostly used to show "a semantic relation of similarity or analogy between content elements" (Lischinsky, 2008, p. 247), as the following examples indicate.

Example 3: Empirical evidence shows that, when sociocultural variables are controlled and cannot therefore confound the results (Bak 2016), bilingual advantages can be found in young children for *executive functions* **such as** planning and decision-making, metalinguistic awareness, phonetic perception, cognitive flexibility, and creative thinking.

Example 4: Researchers have considered *various aspects of companies' responses*, **including** their content and timing.

Example 5: Previous research suggests that bilinguals have increased activation (compared with monolinguals) in the brain region associated with *cognitive skills* **like** attention and inhibition.

As Triki (2021) and Guziurova (2022) note, examples can help make a typicality claim, indicating the existence of a large stock of parallel instances. This extensible character was emphasized through lists (all the underlined nominal groups in Examples 3, 4, and 5) and the use of the comparative particles (*such as, like*) entailed such extensibility as in Examples 3 and 5.

The proportional distribution of individual markers among the three shows that *such as* was one of the most popular devices. This is consistent with other studies of exemplification in academic writing, which have found that *such as* is favored in a number of disciplines (e.g., Guziurova, 2022; Hyland, 2007; Triki, 2021). Despite its similarity with *such as*, that is, its ability to introduce examples in the form of nominal groups, the marker *like* is almost four times less frequent than *such as* in the present corpus. This could be explained by stylistic preferences in written academic genres where *like* is avoided because of "the general stigma" associating it to conversational genres and informal contexts (Meyer, 1992, p. 108). Although not frequent, the marker, *among others*, was also found to be used as an alternative to *e.g.* when it is used in parentheses. Another less frequent marker, *particularly,* was also used in parentheses as Example 6 shows.

> Example 6: L2 learners often differ from multilinguals *in various respects* (**particularly**, <u>in the age of acquisition of the L2 and in L2 proficiency</u>).

In contrast to the lexical items discussed so far which typically induced nominal groups or references as examples, two of the markers, *for example* and *for instance* were found to be predominantly used to introduce elaborating clauses as examples.

> Example 7: Researchers have a goal to report the communicative practices of the workplace as 'objectively' as possible, without intruding on the regular practice. **For example**, <u>Holmes and Stubbe (2015) have conducted exemplary studies in New Zealand workplace contexts to understand how Māori, Pākehā, and Pacific Islanders communicate.</u>

> Example 8: However, given this background, research with heritage language populations poses special challenges which L2 acquisition has overcome since its incipience owing to a vast body of research. <u>L1 transfer</u>, **for instance**, <u>differs in heritage language acquisition as the weaker and stronger languages develop together from a much earlier age than traditional classroom learning or naturalistic L2 acquisition in adults, potentially affecting rate and route of development in ways that exceed L1 transfer in L2 speakers</u>.

These markers were typically used within the sentence, enclosed by commas, especially after the subject, as in Example 8 while they can also be placed in the initial position as well if the whole sentence has an exemplificatory function as in Example 7. The functions of examples signaled by sentence-initial or sentence-medial *for example* and *for instance* in the corpus ranged from explaining or clarifying writers' statements about the centrality or value of the research area to supporting their arguments about the challenges or gaps in the research area. This was often achieved by means of citations since supporting the statements by reference to credible sources is an important strategy, helping to situate the present research in a larger context. The marker *for instance* was more than three times less frequent than *for example* in the corpus. Out of 60 RA introductions, it was used by only four writers, suggesting that this pattern may be related to the writer's personal style (see Biber et al., 1999, p. 890).

Of special note is the finding that the nouns (*an example/an instance*) and the verbs (*exemplify/illustrate* and their passive counterparts) were rarely used as exemplification markers in the introductions of RAs. While other studies which investigated RAs as a whole reported a moderate frequency rate of these items, the present corpus included only 2 cases, suggesting that the nouns and verbs are not the preferred devices for exemplification in RA introductions.

Exemplified Units and Exemplifying Units

The analysis of exemplified units and exemplifying units suggests that as exemplification establishes a link between a term, concept, or statement and another segment that serves as elaboration, exemplified and exemplifying units could be structurally construed in different forms as Table 3 illustrates.

TABLE 3

Frequency of Linguistic Elements for Exemplified Units and Exemplifying Units in RA Introductions

Category of Linguistic Elements	Frequency in Exemplified Units	Frequency in Exemplifying Units
Noun phrases (nominal groups)	136 (55.28%)	102 (41.48%)
Noun phrases (references)	0 (0%)	116 (47.16%)
Prepositional phrases	3 (0.12%)	3 (0.12%)
Clauses	107 (43.50%)	25 (10.16%)
Total	246 (100%)	246 (100%)

As for the grammatical forms of the exemplified units, it was found that the exemplified units come in mainly two forms, either as nominal groups (55.28%) that generally refer to concepts or as clauses (43.50%) that represent statements. Only 3 units were realized in the form of prepositional phrases. As can be seen in Examples 9 and 10, the majority of units that needed exemplifying were concepts, terms, linguistic aspects, or research areas syntactically realized as nouns or noun phrases.

> Example 9: Besides general research on CLIL, *specific aspects* **like** discourse and language classroom description, effects on L2 and L1 competence or new professional roles have been studied.

> Example 10: Over the past decade, translingual perspectives on writing have been widely discussed in *different research areas* **such as** TESOL, applied linguistics, second language (L2) writing,2 composition studies, and bilingual education.

The structure of the exemplified units is shown to constrain the structural realization of the exemplifying chunks. As can be seen in Examples 9 and 10, the nominal group (*specific aspects, different research areas*) in the exemplified units served as the trigger for the entire act of exemplification. This unit is thought of as being syntactically more important than the exemplifying unit (Rodriguez-Abruneiras, 2019), since the presence of the markers *such as* and *like* in those examples, together with the segments (underlined) directly following them, are entirely motivated by the use of the italicized nominal groups. Furthermore, as the ultimate purpose of introducing an example is to elaborate on a prior text span, this text span is usually marked by a kind of ambiguity so that the example can be introduced to illustrate and guarantee precision and lucidity. When those text spans come in the form of nominal groups, the source of the ambiguity can be spotted within one or several constituents of the group. For example, in Examples 9 and 10, the use of the adjectives (*specific* and *different*) seems to be the triggers. When such adjectives were used in nominal groups which all carry meanings of imprecision and vagueness, the writer seems to be motivated to give examples to guide the reader to what they specifically mean.

The analysis also indicates that the need for elaboration in the case of clauses, however, is not solely motivated by one or two constituents within the clause but rather by the overall meaning generated by it. Accordingly, it is expected that "the example introduced in the exemplifying unit would cover not one or some parts of the meaning, but rather all the ideational load expressed in the exemplified unit" (Triki, 2021, p. 9). In Example 11, the main ideas in the first segment realized in the form of the clause are that SA research documents learners' linguistic abilities at different stages of SA, this body of research contributes to our understanding of how context shapes L2 development, and this whole idea is found in the literature of SA. Since the exemplifying unit was expected to cover all the main ideas in the exemplified unit, the exemplifying unit often drew from sources of shared of common knowledge.

> Example 11: Study abroad (SA) research that documents learners' linguistic abilities before, during, and after SA makes an important contribution to understanding how context can shape L2 development (Pérez-Vidal 2014, 2017; Mitchell et al. 2017). **For example**, while SA appears to benefit oral fluency and vocabulary skills to a greater extent than at-home instructed contexts (e.g. Segalowitz and Freed 2004; Pizziconi 2017), the reverse has often been found for accuracy and syntactic complexity skills (e.g. Isabelli 2010; DeKeyser 2017).

If exemplified units served as the anchors, exemplifying units were found to be the carriers of the act of exemplification. It is within these units that concepts, terms or research areas are elucidated, and arguments or points are strengthened. A close examination of these units shows that they could be structurally construed as nominal groups or references within the noun phrases or as various types of clauses. Only a small number of units were realized in the form of prepositional phrases. As the predominant categories of noun phrases, exemplifying nominal groups were very simple with little or no modification

contained as already illustrated in the underlined parts of Examples 9 and 10, or very complex with several levels of complexity and modification, as in the underlined part in Example 12.

> Example 12: Drawing on Farrington et al.'s (2012) framework for noncognitive factors in academic performance (as opposed to *cognitive factors* **such as** <u>students' content knowledge or academic skills that are typically measured by IQ tests and school-administered exams</u>), the present study responds to calls to investigate grit and its conceptual correlates as well as their contribution to students' future academic performance (Clark & Malecki, 2019; Credé, Tynan, & Harms, 2017; Schmidt et al., 2018).

Regardless of whether they are complex or simple, exemplifying nominal groups presented concrete entities, specific labels of concepts or specific areas of research that help readers in grasping the intended meanings of the exemplified unit. Other than nominal groups, another category of the noun phrases was used in the form of references to others' works, which was also heavily used in the present corpus, accounting for more than 47% of the total use of exemplifying units. This type of exemplifying unit was mostly coupled with the exemplified clause, as the following examples illustrate:

> Example 13: Scholars have proposed that digital games can be useful for second language (L2) learning because they provide a contextualized and individualized learning environment (**e.g.,** <u>Sykes & Dubreil, 2019; Sykes & Reinhardt, 2012; Taguchi & Roever, 2017; Thorne, Black, & Sykes, 2009</u>).

> Example 14: Occurrences of miscommunication are likely to be received as evidence of candidates' weaknesses, thus casting a shadow on the technical strengths they may possess (**e.g**. <u>Bremer et al. 1996; Lipovsky 2006; Roberts 2007; Bye et al. 2011; Roberts 2012</u>).

This compacting nature of exemplifying units can also be identified within the series of references that writers cited to support their observations or claims. As Triki (2021) notes, their compacting load resides in the way they contract long and elaborate ideas and arguments articulated in articles and books and reduce them to minimal forms of representation (e.g., the typical reference style of using authors' names followed by the year of publication, as in the underlined parts in Examples 13 and 14). It is interesting to note that exemplifying nominal groups impose specific choices of the exemplification marker to be used. Basically, they are signaled via *such as, e.g.* and *like* but very rarely via *for example* and *for instance*, the markers that would be preferred for the introduction of exemplifying units in the form of clauses.

In the present corpus, 10% of exemplifying units were found to be realized in the form of clauses (see the underlined parts in Examples 7, 8 and 11 above). Those examples illustrate how clauses are used to support the generalized claim or observation that have been made in the preceding clause. It was also found that the exemplifying units could be more than one sentence. In such cases, the writer would substantiate the claim made by giving a real-world situation or providing a hypothetical situation. The following example illustrates this type of the exemplifying unit:

> Example 15: Nevertheless, *in nonroutine situations, pilots and controllers use plain AE to handle requests that relate to both convenience and safety*. **For example**, <u>controllers sometimes need pilots to speed up to optimize traffic flow, or pilots may need to switch to a runway closer to where they will park the aircraft.</u> **Also**, <u>there are nonroutine situations where technical problems or even emergencies require plain AE to meet more urgent or complex needs from interactants.</u>

It can be argued that when the exemplifying unit consists of a series of sentences as in the underlined parts of Example 15, the aim is to provide real-world situations that would boost a previously introduced claim by offering "real contexts where those claims could be made visible" (Triki, 2021, p. 11).

To sum up, exemplifying clauses are used mainly to support the claims or arguments and to strengthen the assumptions or observations made in the exemplified unit, whereas nominal groups mainly serve as elucidation ends. It can be concluded that exemplification as a form of elaboration is not solely deployed for interpersonal and illustrative purposes, but it also boosts and supports argumentation.

Move-based Analysis of Exemplification in RA Introductions

Exemplification can be embedded in different moves of the introduction section and serve different functions depending on where it is positioned. To find out how exemplification is used for different rhetorical functions, a move-based analysis on the RA introductions was conducted. The analysis revealed that exemplifications were located in all three moves of the introduction of RAs. As Table 4 indicates, the distribution of move-related exemplifications varied in frequency with examples being highly dense in Move 1 (Establishing a Territory). Almost two thirds of the examples (63.41%) were located

in this move. This result is not surprising, given that in their efforts to situate their research within a discipline in Move 1, RA writers would often take examples to clarify abstract concepts and terms and to support their claims about the value of research. The analysis also showed that exemplifications in Move 2 (Establishing a Niche) were moderately dense, accounting for more than 24% of the total occurrences, implying that RA writers tended to use examples to indicate a gap in previous literature or to make counterclaims about the existing literature. The incorporation of examples that elucidate existing theoretical concepts or constructs into the writer's argument might be an efficient strategy to persuade the reader to understand their gap-indicating arguments. Exemplifications, although relatively less dense, were also found in Move 3 (Presenting the Present Work), accounting for 12.20%. This finding points to RA writers' selective or judicious efforts to effectively present their work by citing examples only when necessary.

TABLE 4

Distribution of Move-related Exemplification in RA Introductions

Moves of the Introduction	Frequency of Exemplifications Located in Each Move
Move 1: Establishing a Territory	156 (63.41%)
Move 2: Establishing a Niche	60 (24.39%)
Move 3: Presenting the Present Work	30 (12.20%)
Total	246 (100%)

A detailed analysis of rhetorical functions of exemplifications further reveals the various ways exemplifications are used to play specific rhetorical roles by employing various types of semantic resources in each move or step, as presented in Table 5.

TABLE 5

Roles and Semantic Resources of Exemplifications Embedded in Moves/Steps of the Introduction of RAs

	Moves/Steps Exemplification are Located	Roles of Exemplification (n=246)	Semantic Resources (n=246)
Move 1	Step A: Claiming Centrality	Supporting centrality/value claims (n=59)	Elaborating Statements (n=6) Subcategories (CR) (n=12) Relevant Studies (n=41)
	Step B: Real-world Contextualization	Illustrating real-world contexts (n=9)	Elaborating Statements (n=2) Subcategories (RW) (n=7)
	Step C: Making Generalization	Supporting generalization (n=88)	Elaborating Statements (n=6) Subcategories (RW) (n=5) Subcategories (CR) (n=26) Relevant Studies (n=51)
Move 2	Step A: Indicating a Gap	Supporting gap-indication (n=55)	Elaborating Statements (n=7) Subcategories (CR) (n=14) Subcategories (MR) (n=12) Relevant Studies (n=22)
	Step B: Providing Positive Justification	Supporting justification (n=5)	Elaborating Statements (n=1) Subcategories (MR) (n=3) Relevant Studies (n=1)
Move 3	Step A: Announcing Present Research	Elaborating present research (n=14)	Elaborating Statements (n=2) Subcategories (PW) (n=12)
	Step B: Stating Value of Present Research	Supporting value statements (n=16)	Elaborating Statements (n=1) Subcategories (CR) (n=6) Subcategories (MR) (n=8) Relevant Studies (n=1)

Roles and Semantic Resources of Exemplification in Move 1

With regard to Move 1, the analysis shows that RA writers most often began their introductions by establishing the importance of the topic or the research area within which the present study is situated. In this move, centrality claims were made, real-world contextualization was established, or generalizations key to the area of interest were stated. According to Swales (1990), centrality claims are "appeals to the discourse community whereby members are asked to accept that the research about to be reported is part of a lively, significant or well-established research area" (p. 144). Such centrality claims seemed to be made either by assertions about the importance of the topic being discussed (as in Example 16) or by assertions concerning active research activity in the area concerned (as in Example 17).

> Example 16: The importance of examining how racial inequality in TESOL is challenged is highlighted by a series of narrative studies of L2 speaker identity in which participants were found to voice resistance to key tenets of dominant ideology and construct their own counter-narratives. The participants in Choi's (2016) ethnographic study among South Korean students at a US university, **for instance**, resisted being positioned as "NNS" and rejected the implied learning goal of "native-like (monolingual) competence," instead of assigning prestige to bilingual speakers able to seamlessly transition from one language and culture to another. [Move 1/Step A: Claiming Centrality]

> Example 17: In the past three decades, multilingualism and its possible effects on cognition have become a topic of central interest for researchers in education, linguistics, and the broader cognitive sciences (**e.g.**, Bialystok, 2017; De Houwer & Ortega, 2018; Wright, Boun, & García, 2017). [Move 1/Step A: Claiming Centrality]

As for the roles of exemplification embedded in this step, some writers asserted the value or worthwhileness of the research area in terms of the importance of the topic by making an elaborating statement that illustrates, for example, a case of resistance exhibited by the participants in a particular ethnographic study, as in Example 16. In others, the centrality of the topic was reported by referring to current research in the area as in Example 17. Exemplification embedded in this step all served to support the value or centrality claims.

In terms of the distribution of semantic resources utilized in this step of "Claiming Centrality," the majority of exemplifications were realized through relevant studies, followed by concept-related (CR) subcategories, and elaborating statements. Since writers generally present their research topic as situated in a broad research area, relevant studies serve as semantic resources for that centrality claim. Although such arguments generally appeared at the very beginning of the introduction section, it is not the only place for such arguments. It was also observed that when writers wanted to turn to another aspect of the topic, they used an argument to create a context for discussing different aspects, as shown in the following example:

> Example 18: In response to the changing state of affairs, a number of scholars have sought to reconceptualize the field over the past two decades (**e.g**., Blommaert, 2010; Douglas Fir Group [DFG], 2016; Firth & Wagner, 1997). [Move 1/Step A: Claiming Centrality]

Example 18 shows that the writer is now approaching another dimension of the topic in terms of how research focus has been shifted in response to some changes in the field. The analysis further showed that in relation to Step A, exemplification not only occurred in the opening part of the introduction sentences but also was often located in other places. This indicates that, with relatively frequent use of such arguments, writers want to assert that it is important for them to focus on issues that are central, of high value, and relevant to the discipline. This helps them indicate the relation between their research and the ongoing scholarly debates and thereby claim "insider credibility" (Hyland, 2000, p. 80). This compacting nature of semantic resources of relevant studies was mostly identified within the series of references that the writers cite to support their centrality claims.

In the meantime, simply presenting central issues might make the text less accessible to the reader and an exemplification can thus be employed to make their abstract concepts, issues, or phenomena more concrete. In those cases, concept-related (CR) subcategories were found to be employed as semantic resources for exemplification to support the centrality claims, as in Example 19.

> Example 19: *Paired/group formats involving interactive tasks* (**e.g**. discussion, role-play) have been suggested as alternatives providing unique opportunities to assess test-takers' interactional competence (IC). [Move 1/Step A: Claiming Centrality]

In this example, the value of the topic is claimed by invoking an abstract or broad concept or term first (*paired/group formats involving interactive tasks*) which is of central value to the research area, and then providing specific subcategories

(*discussion* and *role play*) of that concept or term. The writer judges that some specification is needed in order to guide readers towards what they mean by *paired/group formats involving interactive tasks* and the use of concrete examples to elaborate on the abstract and rather general entities is vital for the whole claim. Citing the actual physical names of the tasks (*discussion* and *role-play*) seems to give the argument a more precise and tangible dimension.

As semantic resources for exemplification, elaborating statements (ES) seem to have more elaborative and expanding power than subcategories or relevant studies. They seem to be more explicit in meaning and have "the potential to carry heavy semantic and logical loads" (Triki, 2021, p.11), since they give writers more space to illustrate the centrality claim introduced in the preceding sentence. They also indicate that since the value claims (as in the italicized part of Example 16 above) are sometimes very complex or fuzzy, such claims need deep and precise elaboration. As such, examples in the form of clauses have the potential to provide readers with wider and more elaborate ideational material compared to what RS or CR could offer. Furthermore, elaborating statements embedded in this step seem to serve the purpose of argumentation more than simple illustration, as argued by Rodriguez-Abruneiras (2020). The analysis reveals that all 6 occurrences of exemplification in the form of ES in this step served to boost a previously introduced claim by offering the writers' own interpretation or summary of specific findings or observations from which those centrality claims could be more plausible and accessible.

The analysis of exemplification in Step B, "Real-world Contextualization," however, shows the roles and semantic resources different from the ones embedded in Step A. Although only 9 cases of exemplifications were embedded in Step B, they nevertheless served an important function of illustrating real-world or real-life contexts. The role of adding a description of real-world or real-life contexts, situations, or concerns seems to align with the great prominence of semantic resources pertaining real-world (RW) related subcategories.

> Example 20: Social media have revolutionized the way companies communicate with their audiences. Through *sites* **such as** <u>Twitter or Facebook</u>, organizations can reach large numbers of people worldwide quickly and efficiently. [Move 1/Step B: Real-world Contextualization]
>
> Example 21: Mobile devices are increasingly prevalent across global regions, social classes, and communities, and are intimately integrated into *activities* **such as** <u>information gathering, communication, and navigation</u>. [Move 1/Step B: Real-world Contextualization]
>
> Example 22: Open access policies, along with low tuition, geographic proximity to students' homes, and part-time scheduling options, have turned community colleges into an important pathway to higher education for *young adults*, **including** <u>first-generation college students, immigrants, students of color, and students from low-income families, as well as adults returning to school to obtain additional training or credentials.</u> [Move 1/Step B: Real-world Contextualization]

The often mundane and everyday examples (underlined parts in Examples 20, 21, and 22) can be made to support real-world contextualization with solid references to real life, or to more accessible phenomena, entities, or activities. Examples in this step can therefore serve to illustrate the writer's arguments about the real-world issues with rather specific, materialized description with which the reader can easily identify.

The analysis further reveals that out of the three steps embedded in Move 1, the step of "Making Generalization" contained more than 56% of the occurrences of exemplification, indicating that the act of exemplification is a preferred strategy that writers employ in making generalization of their research area or topic as well as selectively reporting what is generally known about their topic. Adequate generalizations of a research area, particularly one that has attracted much prior research, would require exemplifications of the research in a succinct manner. Therefore, relevant studies (RS) have been found to be the most frequently utilized semantic resources as the following example illustrates:

> Example 23: Research on translanguaging pedagogy is predominantly ethnographic and has focused on language practices in classrooms serving bilingual students (**e.g.,** <u>Durán & Palmer, 2014; Garza & Arreguín-Anderson, 2018; Sayer, 2013</u>). [Move 1/Step C: Making Generalization]

In Example 23, the writer makes generalization about the nature of research area of "translanguaging pedagogy" as being "predominantly ethnographic" and "focusing on language practices in classrooms serving bilingual students" and in order to support this generalized claim, the writer lists three relevant studies in the form of integral citations. Most of the writers in this step employed multiple citations to support their generalized statements when they clearly require evidential support. That way, the writers established within the step of "Making Generalization" that the research area or the topic is an acknowledged one in the field.

Another dominant type of semantic resources used for supporting the generalizations about the topic was to use concept-related (CR) subcategories as in the underlined part of Example 24. In making a generalized statement about the nature of "enhanced written input", the writer illustrates "underlining, highlighting or boldfacing" as typical examples of "textual modification."

Example 24: Enhancing written input typically involves *some kind of textual modification*, **such as** underlining, highlighting, or boldfacing (Sharwood Smith, 1991, 1993). [Move 1/Step C: Making Generalization]

Support for the topic generalization was also made possible by using elaborating statements (ES) as semantic resources for exemplification. As in Example 25, in making the generally accepted claim about the association of multilingualism and lower performance, the writer uses the elaborating statement that illustrates the multilinguals' weaknesses in terms of slower lexical access and smaller vocabulary.

Example 25: Second, *multilingualism has been associated with lower performance in some aspects of language knowledge and processing.* **For example**, multilinguals often exhibit slower lexical access than monolinguals (e.g., Bialystok et al., 2009) and smaller vocabularies when each of their languages is considered separately (e.g., Bialystok & Luk, 2012). [Move 1/Step C: Making Generalization].

Overall, the analysis of roles and semantic resources of exemplification embedded in three steps of Move 1 indicates that applied linguistics RA writers consistently strive to claim centrality or value of their research topic, make generalization about the research area or topic in RA introductions. Since they needed to explain and argue for the importance of the issues they seek to address (Jiang & Hyland, 2017), in this process of argument or explanation for the importance of topic or support for the generalization of the research area, they often employed examples to make their argument more accessible to their readers, tapping into various semantic resources such as relevant studies, concept-related subcategories, and elaborating statements. When they wanted to make real-world contextualization, however, semantic resources mostly included subcategories of real-world contexts or entities.

Roles and Semantic Resources of Exemplification in Move 2

Interesting patterns emerged in terms of the number of occurrences of exemplification dedicated to two steps embedded in Move 2. Most apparently, 92% of all occurrences of exemplification in Move 2 were dedicated to the realization of Step A (Indicating a Gap), with applied linguistics RA writers dedicating only 8% of the occurrences of exemplification to Step B (Providing Positive Justification). Analysis of the corpus has indicated that relevant studies were abundantly used in Step A. In the following examples, the semantic resources of RS (the underlined parts) support the gap in research by specifying what has been studied and is already known in the area as compared to what has not been conducted or is hardly known, which is to be filled in the writer's own work.

Example 26: Specifically, while much scholarly attention has been paid to how inequality on the basis of race (and/or non-nativeness) is legitimated in discourse (see **e.g.** Comprendio & Savski, 2020; Jenks, 2019; Ramjattan, 2019; Ruecker & Ives, 2015) and how it is experienced (see **e.g.** Appleby, 2013; Hickey, 2018; Rich & Troudi, 2006; Stanley, 2013; West, 2019), comparably little work has examined how such legitimation is challenged or how grass-roots resistance to it is formed. [Move 2/Step A: Indicating a Gap]

Example 27: Although *this methodological approach has previously been used to analyze narratives of immigration* (**e.g.,** De Fina, 2003; Miller, 2014), to our knowledge, it has not been applied to the examination of students who register an interest to pursue SA but conclude not to proceed with it after some deliberation. [Move 2/Step A: Indicating a Gap]

A research niche can also be established in the introduction to a large degree by drawing the reader's attention to some of the problems or limitations in previous studies or to the contradictory findings among previous studies. In fact, it is previous research with its inadequacies and gaps that seem to propel new research. Therefore, new areas of research, issues, phenomena, or concepts that should be further pursued to fill the void identified in this step would often be illustrated as semantic resources for exemplification as in Examples 28 and 29.

Example 28: Meanwhile, a very important consideration that has commonly been overlooked in the literature, is the evidence of translanguaging used by speakers to deal with *complex issues* **such as** depression, despair, frustration, trauma, and negative

<u>emotional expressions</u>. [Move 2/Step A: Indicating a Gap]

> Example 29: However, to date, *certain pragmatic phenomena*, **such as** <u>irony comprehension</u>, have not been investigated systematically in multilinguals (let alone in bidialectals). [Move2/Step A: Indicating a Gap]

Not only concept-related (CR) subcategories but also method-related (MR) subcategories were profusely used as semantic resources for exemplification in the gap-indicating step. A total of 12 exemplifications embedded in this step used subcategories pertaining research methods (e.g., analytical tools, types of research, types of data, measurement tools, research contexts, etc.)

> Example 30: *Previous studies of third-age additional language learning*—**including** <u>intervention studies</u>—have employed product-oriented methods by focusing on group trends at one or two moments in time, hence implicitly or explicitly dismissing intraindividual variation in the data as measurement error, noise, or outliers.

In Example 30, a traditional type of research, "intervention studies" served as semantic resources to illustrate inadequacies of previous studies in that they employed mostly product-oriented methods and thus dismissed intraindividual variation. As such, inadequacies and gaps in terms of the analytical frameworks of previous research or types of previous research often became the semantic resources for the exemplification.

The construction of gap-indicating reasoning has been perceived as necessitating staged logical procedures for elaborative argumentation as well. In fact, there were a moderate number of instances (n=7) where an elaborating statement follows a general statement that establishes a niche for the researchers to fill. In this step, providing examples via ES goes beyond mere cohesive or interactional needs. Examples of this kind appear to represent building blocks in the construction of creating a niche, as in Example 31.

> Example 31: While, undoubtedly, this body of research has led to a deep understanding of the uses of past tenses by English learners, *the strong (and relatively narrow) focus on lexical aspect and acquisitional processes has left unexplored other facets of the uses of the two tenses*. **For instance**, <u>beyond the process of acquisition, the continued influence of lexical aspect over the uses of the PP and SP in intermediate-to-advanced learner English remains to be investigated</u>. [Move2/Step A: Indicating a Gap]

A gap indication can be immediately followed by another step "Presenting Positive Justification." In addition to indicating a gap in earlier research, writers sometimes also maintained the need for research through positive justification. In the present corpus, although examples were not frequently located in this step, marking only 5 occurrences, claims of justification for a particular analytical framework, instruments or variables seemed to serve as an important rhetorical device for writers who wanted to examine, explore, or uncover some under-researched areas or phenomena from a new perspective or a different analytical framework.

> Example 32: Recent corpus work by Werner et al. (forthcoming) has started to move in this direction with a study that integrates *various contextual linguistic features* (**such as** <u>the semantics of tense-bearing lexical verbs and temporal adverbs,</u> among others) into a single large-scale quantitative analysis. This approach allows the authors to assess the main effects of a variety of contextual linguistic features on speakers' choice of a PP or an SP (henceforth referred to as the 'PP vs. SP alternation') and to recognize that linguistic contexts play a part in learners' decision to use a PP or an SP. [Move2/Step B: Providing Positive Justification]

In Example 32 above, the writer asserted the merits of their choice of a theoretical or an analytical framework for conducting a particular kind of study. The example also illustrates the method-related (MR) semantic resources that are used to support the justification claim. In the process of making justification for a new analytical approach, the writer used subcategories of variables within the category of various contextual features that should be integrated into a proposed analysis. Although such positive justifications are not very common, they nevertheless appear to represent an additional way of establishing a niche in the research arena.

Roles and Semantic Resources of Exemplification in Move 3

As for Move 3 (Presenting the Present Work), the analysis reveals that exemplifications were located primarily in Step A (Announcing Present Research) and Step B (Stating Value of Present Research), marking 14 and 16 occurrences, respectively. In Move 3, the general announcement of the present research in terms of broad aims and purposes was often followed by an example of more specific goals or focus of it. The semantic resources for such exemplification were either

elaborating statements (2 cases) or present-work (PW) related subcategories (12 cases).

In announcing the research being reported, writers often highlighted some of the important aspects of the research as in Example 33 by using the semantic resources of elaborating statements. The elaborating statement often included information about the type of research carried out in the present study, specific procedures or details about how the research was conducted with what variables under what circumstances, etc., thus elucidating the focus of the present study.

Example 33: This article addresses a possible intersection between language documentation and sociolinguistics, raising the question of whether perceptual quantitative methods can be applied meaningfully in a language documentation project. It highlights, **in particular**, a matched-guise experiment that was carried out within the scope of a language documentation project on Baba Malay (BM), an endangered creole. [Move 3/Step A: Announcing the Present Research]

Other than elaborating statements, writers used present-work (PW) related subcategories as the most preferred semantic resources in their efforts to illustrate their own work. The illustration of prevailing and emerging research methods or theoretical frameworks researchers adopted in their present research or the specific variables or factors they included in their present research was a prominent feature of exemplification in this step, as the following examples illustrate:

Example 34: To capture diverse aspects of learner engagement, we employed *a multimethod approach* (**e.g.,** interview, questionnaire, and discourse analysis of interactional data), which also addresses the issue of the single-method approach often used to measure learner engagement in previous engagement research (cf. Dörnyei & Kormos, 2000; Storch, 2008). [Move 3/Step A: Announcing the Present Research]

Example 35: In the current study, we build on this understanding of student decisions regarding SA as based on *clearly delineated, predetermined social identities* (**e.g.**, gender, socioeconomic status) and approach our student participants as people (Lantolf & Pavlenko, 2001) whose meta-agentive talk about SA is also crucially constitutive of these social identities and embedded in both discourses of SA prevalent within higher education and the historical systems and structures in which these discourses were (re)produced. [Move 3/Step A: Announcing the Present Research]

Step B (Stating Value of Present Research) is another function within which exemplification appears with moderate occurrence (n=16). There are certainly opportunities for the writers of RAs to expatiate upon the news value or interestingness of their present work toward the end of the introduction section. As for the semantic resources of exemplification in this step, whose communicative function is to state the value of research by claiming the novelty of the research or pointing to the value of its application (Anthony, 1999), the writers often inserted an exemplification using concept-related (CR) subcategories or method-related (MR) subcategories when they wanted "to alert their academic community to the uniqueness of their work" (Whitley, 2000, p. 11) in terms of a theoretical framework (as in Example 36) or remind their academic community that their adoption of a new analytical method is better than the ones employed in previous studies (as in Example 37).

Example 36: We believe that the application of *a principled theoretical framework* **such as** the constructionist approach to grammar instruction will shed light on the issue of how to boost EFL learners' production ability for communicative purposes. [Move 3/Step B: Stating Value of Present Research]

Example 37: It is also the first study of HLSs to adopt a structural priming task which offers better promise for the elicitation of syntactic knowledge than *other production tasks used with HLSs*, **such as** elicited imitation (Bowles 2011; Heo 2016; Torres et al. 2019), which have been subject to criticism. [Move 3/Step B: Stating Value of Present Research]

Overall, the analysis of exemplification embedded in two steps in Move 3 indicates that in presenting their work, the inclusion of examples in their efforts to provide more specific details of their research aims or focus and illustrate the value of their research can work to "reassure the reader that the paper is worth pursuing further" (Swales, 2004, p. 232) as well as make their texts more accessible to the reader.

CONCLUSION

The findings of the study in terms of the frequency of exemplification, the lexico-grammatical analysis of three units that constitute the act of exemplification, and the functional interpretation of rhetorical roles and semantic resources employed

in different move-steps all point to the significance of exemplification in the argumentation practices of RA introductions in the field of Applied Linguistics. Seeking to make arguments and claims in the introduction section of RAs that are both comprehensible and persuasive, writers in the field of Applied Linguistics were shown to frequently elaborate on their statements or clarify abstract concepts by offering concrete instances of what they have said. Such elaboration seems to be an important element of the ways ideas and arguments are negotiated between the writer and the reader and represent the writer's decision to take the reader's needs for clarification and illustration into account in his or her efforts to create persuasive texts. In what follows, important pedagogical implications will be presented in terms of the major findings of the study.

Firstly, the high frequency of exemplification in the present corpus of RA introductions from the field of Applied Linguistics might be related to the nature of soft disciplines. As Hyland (2007) argued, writers in soft disciplines including Applied Linguistics generally tend to place greater emphasis on situating their research and elaborating their claims, as research in "soft" fields does not always assume that the background knowledge, areas of inquiry, appropriate methods, and theoretical constructs or terminologies are agreed on by all readers, and thus they have to illustrate the research context and clarify concepts to show how they are used in their particular study in this part-genre of introductions of their RAs. From a lexico-grammatical perspective, findings point to the fact that the choice of exemplification markers is generally motivated by the nature of the proposition or idea. For example, a claim of centrality and value about the research topic, generalizations about the research areas, gap-indication in previous studies are mostly supported via relevant studies signaled by the discourse marker, *e.g.*, which accounted for more than 50% of the total occurrences of exemplification in the present corpus. The predominance of this particular exemplification marker in RA introductions indicates that the use of *e.g.*, should be emphasized in EAP instructions. In fact, in Guziurova's (2022) analysis of the Master's theses produced by L2 students, the use of *e.g.* which occurred in parentheses and references to other sources was found to be much less frequent compared to that of their L1 RA writers. The finding suggests that L2 students are not fully aware of this rhetorical convention of *e.g.* in supporting their claims or situate their research within a discipline in academic writing. In terms of the grammatical features of the exemplified units and the exemplifying units, the finding that the structure of the exemplified unit generally induces other elements of the exemplification is worth noting. For example, the analysis showed that if the exemplified unit is a clause, the exemplification marker *for example* or *for instance* was preferred and the exemplifying unit was mostly realized in the grammatical form of a clause. Despite the high probability of syntactic equivalence (nominal groups being exemplified by other nominal groups and clauses by other clauses), however, it should also be emphasized in EAP pedagogy that the elaborating segment does not always have an equal syntactic status to that of the elaborated one. Furthermore, the finding that the forms of the exemplifying units, especially in terms of whether they are realized as nominal groups or clauses are related to the different functions of these two grammatical categories can better inform L2 students of the use of different types of exemplifying units. That is, the information that the exemplifying clauses are used mainly to boost and support argumentations and to strengthen the assumptions or observations made in the exemplified unit whereas nominal groups mainly serve as elucidation or illustration purposes should be explicitly addressed in EAP pedagogy.

From a rhetorical perspective, the analysis suggests that exemplification plays a crucial role in performing rhetorical functions in each step and move of RA introductions. The finding that the most prevalent rhetorical functions realized by the act of exemplification in RA introductions included supporting centrality or value claims about the research topic, supporting generalizations about research areas, and supporting gap-indications points to the areas of instructional focus in EAP pedagogy. The information about the semantic resources (e.g. elaborating statements, relevant studies, concept-related or method-related categories) utilized to realize those crucial communicative purposes should also be explicitly conveyed to L2 or novice writers. Furthermore, the inventory of semantic resources that are mapped into the appropriate rhetorical purposes in move-steps of RA introductions as the one presented in Table 5 can also raise L2 or novice writers' awareness of the different types of semantic resources primarily used for different rhetorical purposes. For example, to realize the function of real-world contextualization, semantic resources such as real-world subcategories or elaborating statements that illustrates real-world problems or issues are used rather than academically oriented concepts or relevant studies utilized in other steps. The functional-semantic mapping of this kind will further inform L2 writers of the importance of incorporating appropriate types of examples into their arguments in according with specific rhetorical purposes or functions they want to realize in each step and move of the introduction section of RAs.

Overall, it can be argued that the rich description of lexico-grammatical features used to realize the act of exemplification as well as the inventory of the roles and semantic resources embedded in different moves and steps in with the frequency information given of each, offered in the present study could be one way to address the issue relating to "the availability of the phraseological information" (Granger & Meunier, 2008, p. 248) as well as the issue of filling the "function-form gap" in genre or part-genre analysis research (Moreno & Swales, 2018, p. 41). More studies adopting the analytical framework that incorporates both lexico-grammatical features and rhetorical-semantic dimensions to explore the act of exemplification

in other sections of RAs across various disciplines will shed further lights on teaching the act of exemplification in EAP pedagogy. In traditional EAP pedagogy, L2 or novice writers are often advised of greater use of exemplification in their writing (e.g., Paltridge & Starfield, 2020). Nevertheless, as shown in this paper, greater or less use of particular exemplification markers with particular functions can be "a result of writers' rhetorical strategies adopted in response to the nature of the section of the RA and rhetorical functions the section attempts to realize" (Kawase, 2015, p. 123). Therefore, it would be useful for novices, especially L2 writers, to learn not only the forms and functions of exemplification items but also how they should be orchestrated to construct their desired rhetoric in the targeted section of RAs.

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