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Interactional Metadiscourse in *English Teaching* Articles: A Diachronic Perspective (1980-2021)

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While the use of metadiscourse in L2 writing has received considerable attention in the past, little effort has been made to examine how L2 writers' use of metadiscourse in academic writing has evolved over time. In addressing this, the present study explored a diachronic evolution of interactional metadiscourse in research articles (RAs) published across a span of 40 years (1980-2021) in *English Teaching*. Based on 931 articles consisting of 6.4 million words, we examined whether the use of interactional metadiscourse has changed over the past 40 years. Our findings revealed that there was a global decrease in interactional metadiscourse over the past 40 years. While the frequency and diversity of interactional metadiscourse have slightly decreased over time, the proportion of each metadiscourse category remained consistent. The study further suggests that Korean L2 scholars who publish in *English Teaching* tend to hedge more than they boost or use attitude markers compared to those who publish in global journals.

Key words: interactional metadiscourse, corpus-based research, English for academic purposes, second language writing

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I. INTRODUCTION

Academic discourse involves language that is technical and specialized, and the way in which argument and engagement are crafted varies considerably across discipline. Different scholarly communities have different expectations about "what is worth communicating, how it can be communicated, what readers are likely to know, how they might be persuaded, and so on" (Hyland & Bondi, 2006, p. 7). Thus, scholarly discourse is socially constructed within disciplinary communities, in which writers interact with colleagues using rhetorical conventions and strategies widely accepted by community members. To demonstrate one's professional credibility and the value of his/her work to the field, it is essential for academics to develop fluency in the discourse conventions of their community. Over the years, English has become the international language of research and scholarship, and scholars face increasing demands to publish in English (Curry & Lillis, 2004; H. Lee & K. Lee, 2013; I. Lee, 2014; Li & De Costa, 2021). In many academic institutions worldwide, English-medium publications have higher status and serve as a major criterion for career advancement (e.g., contract renewal, tenure and promotion). As a result, the ability to engage in approved discoursal practices in English within one's academic community has become an essential tool for all scholars, including multilingual scholars from non-Anglophone countries such as Korea.

In an effort to better understand how different disciplines shape their arguments and construct knowledge, English for Academic Purposes (EAP) research has focused on examining discourse structure and textual interaction of academic writing. One of the textual features that has garnered much interest in recent years is the concept of metadiscourse, which, based on the view of writing as social interaction, refers to "linguistic resources used to organize a discourse or the writer's stance towards either its content or the reader" (Hyland & Tse, 2004, p. 157). Hyland's (2004) metadiscourse model further distinguishes between interactive and interactional resources in characterizing metadiscourse: The former relates to ways of organizing discourse to constrain and guide readers' interpretations and to establish the writer's preferred interpretations; the latter concerns writers' ways of expressing their confidence in the truth of a proposition and controlling the level of personality in a text to build an appropriate relationship with readers. Both types of metadiscourse are instrumental in facilitating academic discourse, supporting a writer's position, enhancing cohesion and readability, and conveying an attitude to the text or to an audience.

In recent years, a handful of studies have probed into diachronic changes in the use of metadiscourse (e.g., Deng et al., 2021; Gillaerts & Van de Velde, 2010; Hyland & Jiang, 2016, 2018), demonstrating that metadiscourse features are not static but susceptible to change over time. The findings of these investigations collectively converge on the

observation that interactive and interactional metadiscourse features in academic writing display opposite patterns of change across disciplines: The former witnesses a significant increase, while the latter shows a marked decrease. Hyland and Jiang (2018), in particular, demonstrated that applied linguistics, of the four disciplines under study (applied linguistics, sociology, biology, and electrical engineering), exhibited the highest increase in the use of interactive features and the most dramatic decrease in the use of interactional features. This suggests that academic writing in applied linguistics tends to be moving toward more impersonal, less persuasive, and audience responsible texts over time.

Diachronic studies of metadiscourse features provide valuable insights into how the conventions of disciplinary discursive practices shift over time in response to changes in larger social-cultural and disciplinary forces in society (Hyland, 2004). These studies meaningfully contribute to our understanding of academic writing as a social artefact that is situated in a particular time and place, shedding light on how scholars may adjust their discourse practices to convey their ideas and engage with readers of their time in the most effective way. Such insights may serve as valuable resources especially for novice academics or second language (L2) writers who hope to develop discipline-specific discourse competence to engage with their global disciplinary community.

Diachronic studies on metadiscourse, despite its unique contribution to EAP research, are scarce and largely limited to examining research articles sampled from highly prestigious global journals in the field. While studies focusing on the most representative texts in the global discourse community are essential as they tend to establish discipline-specific standards of scholarship, research efforts at the level of local academic communities are important and worthwhile in their own right. For instance, applied linguistics journals in Korea publish a large volume of articles written in English primarily (but not exclusively) by Korean authors. This suggests that English, in addition to Korean, serves as the language of scholarship in the applied linguistics community in Korea. Thus, examining language use of Korean L2 writers may shed light on unique discourse patterns specific to the local disciplinary community. Research on multiliteracies, in fact, indicates that academic writing of advanced L2 scholars has begun to show marks of localization (Canagarajah, 2006), suggesting that academic writing is a highly situated practice (Lea & Street, 2006). Furthermore, it would be worthwhile to examine whether the change of research trends in the global applied linguistics community is also reflected in the local applied linguistics community in Korea. Such a comparison has the potential to shed light on differences between the two academic discourse communities, which may serve as useful insights to those who wish to develop competence in discipline-approved practices to hold membership in both the local and global discourse communities of applied linguistics.

To contribute to the extant literature on the change and development of L2 academic writing over time, the present study explored a diachronic evolution of interactional

metadiscourse in research articles (RAs) published across a span of 40 years (1980-2021) in *English Teaching,* one of the representative applied linguistics journals in Korea. Using a corpus that includes 931 articles consisting of 6.4 million words, we examined whether, and to what extent, the use of interactional metadiscourse in research texts has changed over the past 40 years.

2. LITERATURE REVIEW

2.1. Interactional Metadiscourse in Academic Discourse

Metadiscourse refers to "linguistic resources used to organize a discourse or the writer's stance towards either its content or the reader" (Hyland & Tse, 2004, p. 157), and it has been deemed fundamental in shaping the text and creating meaning. According to Hyland's (2005) model of metadiscourse, there are two dimensions of metadiscourse: interactive and interactional resources. The former (e.g., transitions, frame markers, code glosses, endophorics, evidentials), also known as textual metadiscourse, is related to addressing the ways of organizing discourse, while the latter (e.g., hedges, boosters, attitude markers, self-mention, engagement) concerns the writer's efforts to signal their authorial stance toward and engagement with the text and readers. The interpersonal resources have attracted particular attention in EAP research because conveying appropriate authorial stance and engagement with readers is crucial for successful academic writing. As Hyland and Jiang (2018) note, "there is no 'faceless' writing" (p. 22), and this, too, applies to published academic writing, which is assumed to be impersonal. Making an appropriate level of claim through the use of interactional metadiscourse markers is a critical aspect of research reporting (Hyland, 2004). Interactional resources related to stance (i.e., writer-oriented features of interaction) include hedges, boosters, attitude markers, and self-mentions. Hedges are rhetorical devices such as *might, perhaps,* and *possible* that express the writer's uncertainty about a proposition; boosters, on the other hand, are expressions such as *definitely, clearly, demonstrate,* which allow the writer to express certainty about a proposition. Attitude markers such as *unfortunately* and *surprisingly* indicate the writer's attitude to a proposition, and self-mentions refer to the use of first person pronouns and possessive adjectives such as *I, we, my,* and *our* to make authorial presence in the text.

Interactional resources that concern engagement with readers (i.e., writer-reader features) include reader pronouns and directives. The former refers to the use of second person pronouns (e.g., *you, your*) and inclusive *we* to acknowledge the reader's presence, while the latter refers to expressions such as *must* and *should* (mainly imperatives and obligation modals) that are intended to align the goals of the writer with those of the reader. Writers

may also use questions, references to shared knowledge (i.e., explicit markers such as *of course* and *obviously* which signal an assumption of shared attitudes and reactions), and personal asides (i.e., a brief interruption that occurs in the text to offer a comment on what has been said) to bring readers into the discourse.

To date, research on interactional metadiscourse has largely centered on cross-disciplinary comparisons, demonstrating clear disciplinary variation in stance and engagement construction. For example, Hyland (2005) found that the overall instances of stance and engagement features were higher in RAs in the soft disciplines (e.g., applied linguistics, sociology, marketing, philosophy) than those in the hard sciences (e.g., electrical engineering, engineering, microbiology, physics). Similar results were found in Peacock (2006), which investigated the use of boosters in RAs across six disciplines and reported that the soft disciplines are likely to employ more and a wider range of boosters than the hard disciplines. Harwood (2005) also revealed disciplinary variation in the use of first person pronouns (i.e., *I,* inclusive and exclusive *we*), suggesting that those in the soft disciplines preferred to use *we* inclusively to refer to readers and themselves, while those in the hard disciplines tended to use *we* almost exclusively to refer to themselves (i.e., the writers).

In addition to these synchronic studies that uncovered interesting disciplinary differences in interactional resources, there have been some recent efforts (Gillaerts, 2014; Gillaerts & Van de Velde, 2010; Hyland & Jiang, 2016, 2018) to track how the use of metadiscourse markers has changed in research writing over time. For instance, Gillaerts and Van de Valde (2010) and Gillaerts (2014) investigated the evolution of metadiscourse features in RA abstracts of an applied linguistics journal (*Journal of Pragmatics* and *Applied Linguistics*, respectively) over a certain time span. Their findings demonstrated that the degree of interpersonality realized by various interactional markers diminished, while the use of interactive features witnesses a growth. Similar findings were observed in Hyland and Jiang's (2016, 2018) corpus of RAs, which compared the use of metadiscourse in RAs in soft and hard disciplines at different time spans over the last 50 years. Almost all interactional features (i.e., hedges, boosters, attitude markers, self-mention, engagement) showed a marked decline in soft disciplines, including applied linguistics (represented by RAs from five key journals, i.e., *TESOL Quarterly, Language Learning, Foreign Language Annals, Modern Language Journal,* and *College Composition and Communication*), while the opposite trend was observed in hard disciplines. With respect to interactive features, both disciplines witnessed an overall increase although the growth was particularly dramatic in applied linguistics (a 70% increase over the last five decades; c.f. a 35% increase in engineering) (Hyland & Jiang, 2018). These findings collectively suggest that knowledge construction practices in applied linguistics have become more objective and impersonal over the years, moving away from the tendency to assist the target audience with interpersonal elements, toward textuality in which writers engage their readers through

factual data. Since the use of interactional features is markedly lower in hard disciplines (Hyland, 2005), the observed change in the research trends of applied linguistics may be seen as a move toward hard science textual features.

2.2. Interactional Metadiscourse in L2 Writing

Moving beyond the study of metadiscourse by native speakers of English, research efforts have been devoted to investigating L2 writers' use of metadiscourse markers, namely boosters and hedges (known as epistemic stance markers), in the context of argumentative and academic writing. In their investigation of academic texts written in English by native and non-native speakers of English, some studies (e.g., Back, 2014; Hyland & Milton, 1997; J. J. Lee & Deakin, 2016; Park & Oh, 2018) have shown that L2 writers' strategies for conveying their authorial stance and engaging with the audience differ greatly from those employed by writers whose first language (L1) is English. For instance, Hyland and Milton (1997) reported Chinese L2 learners' overuse of boosters and underuse of hedges compared to their native counterparts: English essays written by Chinese students included 60% more boosters and 73% fewer hedges than L1 essays. Similar patterns were found in Korean scholars' English research articles (Back, 2014; Shim, 2017) as well as in Korean L2 learners' English essays (Park & Oh, 2018). These studies suggest that stronger commitments to statements, firmer assertions, and more authoritative tone may be a common feature of many L2 writers. Park and Oh (2018), in particular, revealed that the use of boosters and hedges may be related to L2 writing proficiency; that is, higher writing proficiency was associated with a lesser reliance on boosters and higher occurrences of hedges. This finding is consistent with other studies that have documented frequency of hedges being predictive of (e.g., Uccelli et al., 2013) or positively associated with (e.g., J. J. Lee & Deakin, 2016) quality writing.

Other notable features of L2 writing include overuse of a narrow range of metadiscourse features, possibly as a result of L2 writers' limited repertoire of metadiscourse markers (e.g., Park & Oh, 2018) and inappropriate use of metadiscourse features due to limited pragmatic competence (e. g., Hyland & Milton, 1997). Additionally, a higher proportion of boosters than hedges has been observed in L2 writing (e.g., Park & Oh, 2018) as well as in novice writing (e.g., Yoon & Römer, 2020). In contrast, Hyland's (2005) corpus of published research articles suggests that expert writing is generally marked with higher use of hedges than boosters in most disciplines (hedges being two to three times more common than boosters). Interestingly, this pattern seems to remain consistent over time according to Hyland and Jiang's (2018) study of diachronic variation in academic writing.

Taken together, previous studies suggest that extensive use of boosters is a distinct characteristic of L2 writing. While increasing one's epistemic commitment through use of

boosters is crucial in academic writing, an authorial stance must be also marked by precision as well as by awareness of views other than the author's own. In fact, advanced academic writing involves constructing a cautious stance in relation to the landscape of alternative views of one's discourse community. The judicious use of hedges is, thus, key to demonstrating a sensitivity to the existence of other views and projecting a stance that is considered measured and circumspect. In this regard, more pedagogical attention to the use of hedges, or interactional metadiscourse at large, seems warranted for L2 writers.

While the use of metadiscourse in L2 writing has received considerable attention in the past, very little or no effort has been made to examine how L2 writers' use of metadiscourse resources in academic writing has evolved over time. As mentioned previously, literary demands of an academic discipline are susceptible to change over time. For instance, academic texts in applied linguistics have become more impersonal and less reader inclusive over the years, as evidenced by the decrease in interactional resources and the increase in the use of interactive resources (Gillaerts, 2014; Gillaerts & Van de Velde, 2010; Hyland & Jiang, 2018). It would be noteworthy to investigate whether L2 writers have responded to the rhetorical shift in argumentation patterns in academic writing. More specifically, has L2 writing witnessed similar changes of patterns in the use of metadiscourse features documented in previous studies? Moreover, to what extent has L2 academic writing maintained its notable features over time?

To address this gap in the literature, the present study took a diachronic approach to examine the evolution of interactional metadiscourse in English research articles published in one of the representative applied linguistics journals in Korea, *English Teaching*. We purposefully selected a local applied linguistics journal that attracts a rather homogeneous group of L2 writers because previous studies (e.g., Yoon, 2021) have shown that L2 writers' use of metadiscourse features may differ by L1 background. Thus, by examining research texts written by L2 writers who share the same first language (Korean) and a field of study (applied linguistics), we aimed to identify distinct patterns of interactional features of a specific L2 writer group, that is, Korean applied linguists. We believe that a study of local disciplinary practices of this sort is meaningful in that it enables us to compare discourse patterns between local and global academic communities, which in turn may offer implications for novice academics or L2 writers who wish to develop competence in discipline-approved practices to become a successful member of both the local and global communities of applied linguistics.

The present study drew on a corpus of 931 RAs consisting of 6.4 million words taken from *English Teaching* from 1980 to 2021. Using Hyland's (2005) model of interactional metadiscourse as a theoretical framework, we investigated whether the way in which Korean L2 writers use interactional markers (i.e., hedges, boosters, attitude markers, directives) has changed over time. The pattern of change was examined in terms of frequency (total number

of uses in a text), relative use of interactional markers, and diversity (type). Additionally, the evolution of interactional metadiscourse observed in the present corpus was compared with the pattern of change found in Hyland and Jiang (2018) to examine to what extent the discoursal patterns in the local academic community (consisting of L2 writers) aligns with those in the global academic community (consisting of writers whose command of English is presumed to be near-native). The two research questions (RQs) that guided the present study are as follows:

1. Has the use of interactional metadiscourse in RAs published in English Teaching changed over a span of 40 years?
2. To what extent are patterns of metadiscourse observed in the present corpus comparable to those found in the global applied linguistics community represented by the corpus built by Hyland and Jiang (2018)?

3. METHODOLOGY

3.1. The Corpus

To trace changes in the use of interactional metadiscourse features over the past 40 years, we compiled a corpus of 931 RAs consisting of 6.4 million words from *English Teaching,* one of the prestigious applied linguistics journals in Korea. This journal was chosen among others primarily for two reasons: First, *English Teaching*, founded in 1965, has the longest publishing history in the field of applied linguistics in Korea; and second, the scope and aim of this journal seemed to align most closely with those of the five applied linguistics journals in Hyland and Jiang (2018) (i.e., *TESOL Quarterly, Language Learning, Foreign Language Annals, Modern Language Journal,* and *College Composition and Communication*). Compiling a corpus similar to that of Hyland and Jiang (2018) was necessary to make the comparison between the present study and Hyland and Jiang (2018) possible. The time period under study was approximately 40 years (1980-2021) since RAs published prior to 1980 were not available online. Any articles written in Korean or by a non-Korean scholar (as inferred from the last name) were excluded from the corpus. The latter decision was made to reduce the variations in RAs and keep the samples homogeneous in terms of their first language (L1). In addition, articles that were not in the format of research articles (e.g., panel transcripts) were excluded from the final pool. Lastly, the reference section and appendices were removed from the RAs to provide a more accurate estimate of article length. Table 1 displays the overall size and the number of RAs for each decade, between 1980 to 2021.

TABLE 1

Summary of the Corpus Data

Time Period	Number of RAs	Number of Words	Average Words per RA
1980s	56	259,712	4637.7
1990s	154	878,505	5704.6
2000s	406	2,874,779	7080.7
2010s	277	2,118,798	7649.1
2020s*	38	281,130	7398.2
Total	931	6,412,924	6888.2

Note. 1980s = 1980-1989; 1990s = 1990-1999; 2000s = 2000-2009; 2010 = 2010-2019; 2020-2021; * It must be noted that the 2020s included only two years 2020 and 2021.

3.2. Data Coding

The compiled articles for the present corpus were first converted to text files using *R,* and an automated processing tool, the Authorial Voice Analyzer (AVA; Yoon, 2017) was used to analyze our data. We obtained normalized frequencies (per 1,000 words) of four interactional metadiscourse features (i.e., hedges, boosters, attitude markers, and directives) and type (i.e., number of unique items) values for hedges, boosters, and attitude markers. AVA includes a total of 164 hedge expressions, 174 booster expressions, and 640 attitude markers (obtained through the existing lists of emotion and attitude words from previous studies; Hu & Liu, 2004; Mohammad & Turney, 2013). For directives, AVA counts obligation modals, predicative necessity-related adjectives, as well as imperative constructions. Although AVA produces token values for self-mention and reader pronouns, they were excluded from our analysis because the quantification of these features with AVA is known to be less valid when analyzing texts other than single-authored argumentative essays (such as RAs) (Yoon & Römer, 2020). A full range of lexico-grammatical expressions that fall into the four categories can be found in Yoon and Römer's (2020) supplemental material. Table 2 illustrates examples of each interactional feature from the articles in our corpus.

TABLE 2

Interactional Metadiscourse Features and Examples

Type	Feature	Example
Stance	Hedge	The short vowels /i/ and /u/ of English are **perhaps** the most difficult sounds for Koreans to learn… (Nahm, 1984, p. 9)
	Booster	As we learn more about language proficiency through concentrated research and development efforts, we will **undoubtedly** discover better ways to teach and test language skills. (Y.-J. Lee, 1990, p. 135)
	Attitude	**Unfortunately**, however, some of the pedagogical suggestions are so general and sketchy... (Cho, 1987, p. 292)
Engagement	Directive	…it **should be noted** that most of these studies performed a series of Pearson correlation analyses between the FLCAS and the targeted skill-based L2 anxiety… (Pae, 2013, p. 243)

4. RESULTS

Overall, our corpus contained 34,847 cases of interactional metadiscourse, with an average of 35 occurrences per 1,000 words. In what follows, results are discussed according to our research questions.

4.1. Changing Patterns of Interactional Metadiscourse over Time (RQ1)

The changing patterns of interactional metadiscourse over time were examined in terms of the following: (a) frequency of markers, (b) relative use of markers, and (c) diversity of markers (only for hedges, boosters, and attitude markers).

First, we examined frequencies of metadiscourse markers over time. Table 3 presents mean frequencies (normalized per 1,000 words) and standard deviations for the four metadiscourse markers by time period (1980s, 1990s, 2000s, 2010s, 2020s). While RAs are categorized into different time periods here for summary purposes, the year of publication was treated as a continuous variable (from 1980 to 2021) whenever a statistical analysis was performed. Figure 1 graphically illustrates the change in the frequency of metadiscourse use from 1980 to 2021, with each dot representing a single RA. The results indicate that the overall use of interactional metadiscourse markers have decreased in the past 40 years. A non-parametric Kendall's correlation analysis confirmed that there was a statistically significant, but very weak, negative relationship between frequency of metadiscourse markers and time (τ = -0.09, p < .01). When we looked more closely at the use of metadiscourse by category, we found that the downward trend was similarly observed in

each category, suggesting that the overall decrease was not led by a significant drop in one particular category but was rather due to a decrease of comparably small magnitude across metadiscourse categories. Kendall's correlation analyses reported that all of the metadiscourse categories, but hedges, statistically negatively correlated with time (attitude markers, τ = -.1, p < .01; boosters, τ = -.06, p = .01; directives, τ = -.13, p < .01). Although hedges were not significantly correlated with time, it nevertheless approached significance (τ = -.04, p = .064) in a negative direction with time.

TABLE 3

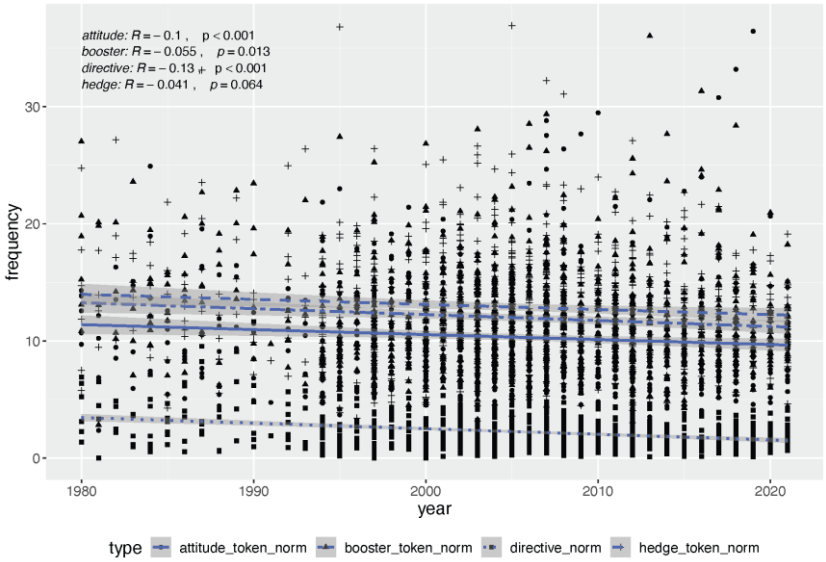
Mean and Standard Deviation *(SD)* Values of Interactional Metadiscourse by Time Period

Time Period	Hedges		Boosters		Attitude Markers		Directives	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
1980s	14.28	5.56	14.62	4.87	11.21	4.28	3.66	2.32
1990s	12.12	4.83	11.53	4.37	10.93	3.70	2.53	1.93
2000s	13.51	4.65	11.99	4.03	10.31	3.96	2.30	1.52
2010s	12.28	3.99	11.78	4.59	9.92	4.43	1.82	1.04
2020s	11.62	3.10	11.19	2.85	9.43	3.36	1.78	0.88

Note. The mean value is per 1,000 words.

FIGURE 1

Frequency of Interactional Metadiscourse Over Time (Normalized per 1,000 Words)

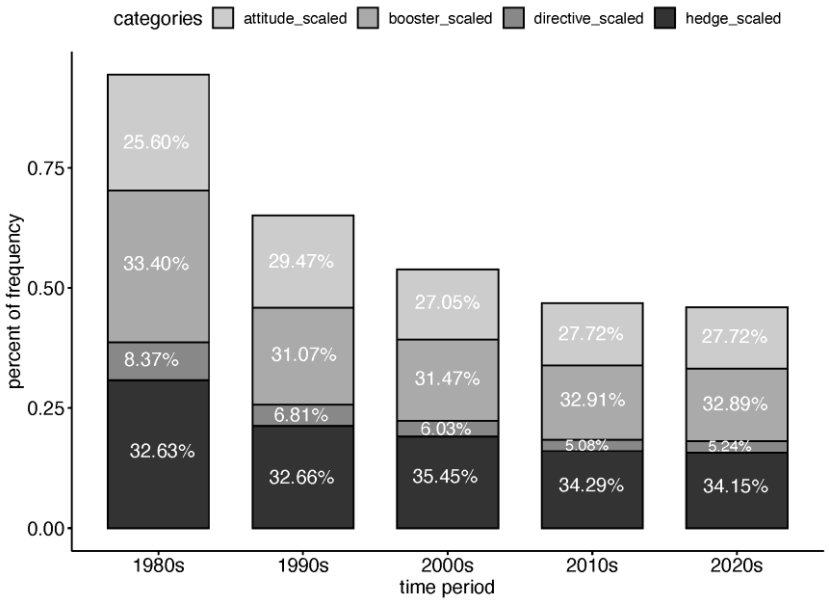


Note. Metadiscourse categories are color- and shape-coded; attitude markers (red circle), boosters (green triangle), hedges (blue square), and directives (purple cross).

Second, we examined the change in the use of metadiscourse in terms of the relative use of four metadiscourse categories. As indicated by the frequencies in Table 3 and Figure 2, hedges were the most frequently employed markers immediately followed by boosters and attitude markers. In contrast, directives were the least employed metadiscourse category in RAs published in *English Teaching.* Interestingly, the proportion of metadiscourse categories remained constant over the span of 40 years.

FIGURE 2

Relative Use of Interactional Metadiscourse Categories Over Time



the type-token ratio. The type-token ratio was calculated by dividing the normalized frequency of unique types by the normalized frequency of all cases. A diversity value ranged from zero to 1, with a higher value denoting the use of a higher variety of metadiscourse types. As shown in Table 4 and Figure 3, the overall mean type-token ratios for hedges, boosters, and attitude markers were on the gradual fall across time periods, suggesting that L2 writers' use of metadiscourse has become less varied over the years.

TABLE 4

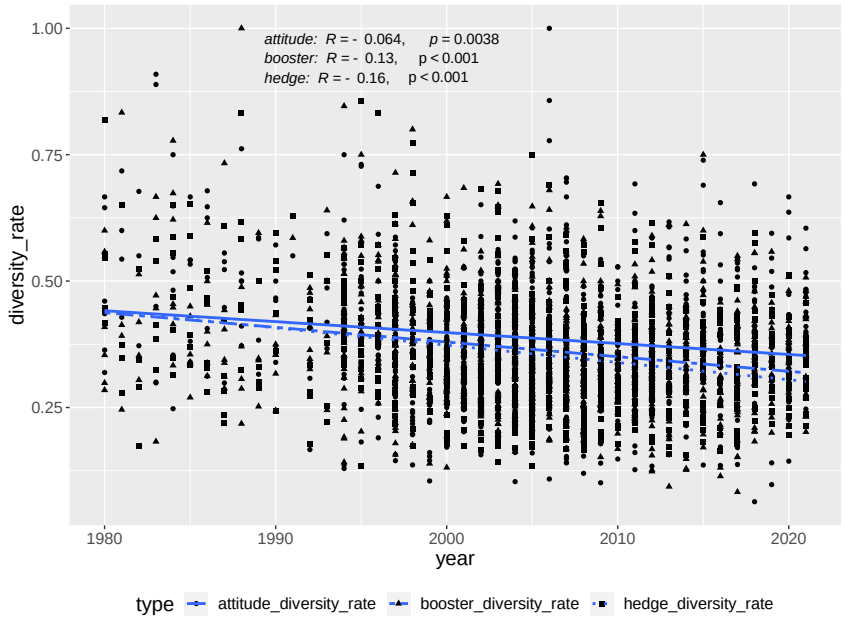
Mean Type-Token Ratio of Hedges, Boosters, and Attitude Markers by Time Period

Time Period	Hedges	Boosters	Attitude Markers
	M (SD)	*M (SD)*	*M (SD)*
1980s	.44 (.14)	.43 (.16)	.51 (.15)
1990s	.40 (.12)	.40 (.13)	.37 (.13)
2000s	.34 (.11)	.36 (.10)	.38 (.12)
2010s	.33 (.08)	.34 (.10)	.37 (.12)
2020s	.33 (.07)	.36 (.08)	.39 (.12)

Note. SD = standard deviation

FIGURE 3

Type-Token Ratio of Hedges, Boosters, and Attitude Markers Over Time



4.2. The Comparison Between Two Corpora (RQ2): The *English Teaching* Corpus vs. the Hyland and Jiang (2018) Corpus

An additional analysis was conducted to compare the *English Teaching* corpus of the present study (hereafter, the ET corpus) with the applied linguistics corpus of Hyland and Jiang (2018) (hereafter, the HJ corpus) to the extent possible, in order to highlight any differences in the use of metadiscourse by the local and global applied linguistics communities. Frequencies of three interactional markers, namely, hedges, boosters, and

attitude markers were compared between the two corpora. The use of directives was excluded from the analysis because Hyland and Jiang (2018) did not dedicate a separate category for directives. For the ease of comparison between the two corpora, frequencies of metadiscourse markers from Hyland & Jiang (2018) were re-normalized per 1,000 words (see Table 5). Next, a graph was plotted with Hyland and Jiang's (2018) three time periods (1965, 1985, and 2015) and our five time periods (1980s, 1990s, 2000s, 2010s, and 2020s). Since the ET and HJ corpora shared only two time periods (i.e., 1980s and 2010s), patterns of change were examined using those two periods.

As illustrated in Figure 4, the use of metadiscourse markers in the two corpora patterned quite differently. The three metadiscourse marker lines for the ET corpus were somewhat clustered in the central region of the graph, suggesting that the frequencies of hedges, boosters, and attitude markers were relatively comparable to each other. In contrast, the three lines for the HJ corpus were more widely spread out on the graph, indicating that the frequencies of hedges, boosters, and attitude markers varied considerably. As shown in Table 5, hedges were used approximately two times more frequently than boosters and approximately four to five times more frequently than attitude markers in the HJ corpus. Despite the general downward trend across time periods, the relative use of these three features remained consistent over the years in the HJ corpus.

Next, we compared the pattern of change for hedges, boosters, and attitude markers between the two corpora, using two time periods (i.e., 1980s and 2010s). As shown in Figure 4, hedges were always used more frequently in the HJ corpus than in the ET corpus although the size of the difference became smaller over the years. The opposite pattern was found with the use of boosters and attitudes markers in that the ET corpus made significantly more use of boosters and attitude markers compared to the HJ corpus. The size of the difference also remained comparable over time, suggesting that the distinctive patterns of metadiscourse use observed in the two corpora remained fairly stable.

TABLE 5

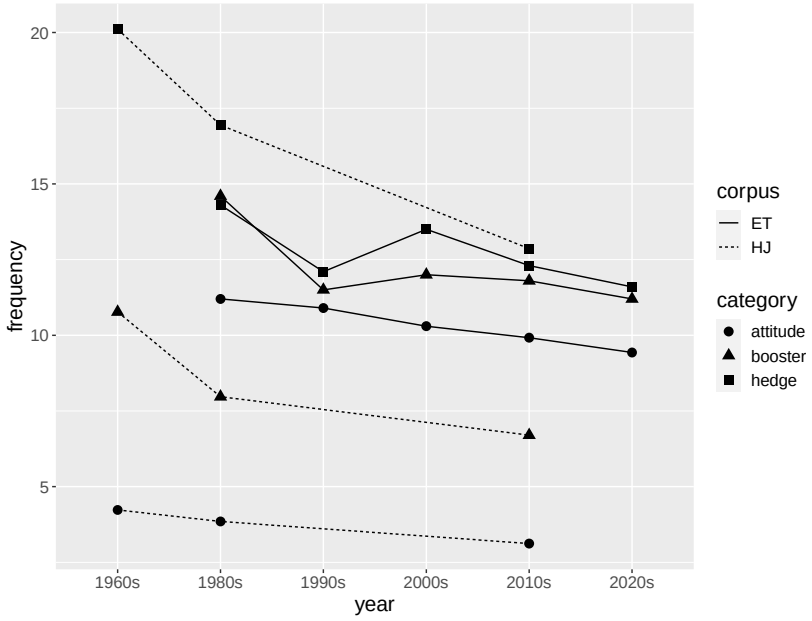
The Comparison of Hedges, Boosters, and Attitude Markers Between the ET and HJ Corpora

Time Period	Hedges		Boosters		Attitude Markers	
	ET Corpus	HJ Corpus	ET Corpus	HJ Corpus	ET Corpus	HJ Corpus
1960s	–	20.11	–	10.77	–	4.23
1970s	–	–	–	–	–	–
1980s	14.28	16.94	14.62	7.97	11.21	3.85
1990s	12.12	–	11.53	–	10.93	–
2000s	13.51	–	11.99	–	10.31	–
2010s	12.28	12.86	11.78	6.7	9.92	3.12
2020s	11.62	–	11.19	–	9.43	–

Note. – indicates not applicable.

FIGURE 4

Comparison of Metadiscourse Use Between Hyland and Jiang (2018) and the Present Study



5. DISCUSSION

The current study explored whether there has been any change in the use of the interactional metadiscourse in RAs published in *English Teaching* from 1980 to 2021. Our findings suggest that there was a global decrease in interactional metadiscourse over the past 40 years. The change in the use of interactional metadiscourse was further examined in terms of frequency, relative use, and diversity. First, our findings demonstrated that the overall use of interactional metadiscourse has witnessed a marginal decrease over time and that the downward trend is attributed to the statistically significant fall in boosters, attitude markers, and directives. Such results are generally in line with previous diachronic studies of research texts (e.g., Gillaerts, 2014; Gillaerts & Van de Valde, 2010; Hyland & Jiang, 2018), which reported that academic writing in soft disciplines, including applied linguistics, are moving toward a lesser application of interactional metadiscourse, which makes research prose more objective and less reader-oriented. However, the decline observed in the ET corpus was far less pronounced compared to that of Hyland and Jiang (2018) as shown in Figure 1. This suggests that there has been a less dramatic change over time in Korean applied linguists' use of interactional metadiscourse markers. Furthermore, it must be noted that there are

mixed results regarding the pattern of change for each metadiscourse category. While Hyland and Jiang (2018) reported that all the interactional features in applied linguistics RAs were on the fall, the present study indicated that there was no statistically significant change in the use of hedges over time. This seems to be attributed to the fact that hedges were used far less frequently by Korean applied linguists in earlier years. Furthermore, others examining applied linguistics RA abstracts showed contrasting patterns: Gillaerts and Van de Valde (2010) observed an increase in hedges and a decrease in boosters and attitude markers, whereas the opposite pattern of change was found in Gillaerts (2014). Given these mixed findings, more research investigating interactional metadiscourse in RAs seems warranted.

Next, the present study also indicated a steady decrease in the diversity of metadiscourse markers, specifically hedges, boosters, and attitude markers. This suggests that Korean L2 writers are moving toward using a narrower variety of words in RAs. While overuse of a narrower range of metadiscourse markers repeatedly is generally considered a characteristic of lower quality writing in academic discourse (e.g., Hyland & Milton, 1997; J. J. Lee & Deakin, 2016; Park & Oh, 2018), we argue that the decrease of diversity of metadiscourse observed in the present study does not point to L2 writers' limited repertoire of metadiscourse items. In fact, RAs in the present corpus are written by highly advanced L2 writers and have gone through a rigorous peer review process. Thus, it seems more plausible to ascribe this decrease in diversity to L2 writers' enhanced genre awareness. That is, the awareness of choices and constraints that a certain genre, such as RA, allows and requires may constrain writers to employ a set of conventionalized rhetorical choices or possibilities in their writing (Hyland, 2004; Yasuda, 2011). Thus, the use of a narrower range of metadiscourse over time may reflect Korean applied linguists' improved tendency to employ genre-specific language choices. However, more research on the diversity of metadicourse is warranted to confirm whether this speculation is accurate.

Lastly, the present study reported that the relative use of hedges, boosters, and attitude markers in the ET corpus remained fairly stable over time: Korean L2 writers used hedges and boosters to a comparable degree with attitude markers lagging slightly behind them. In contrast, the applied linguistics corpus in Hyland and Jiang (2018) depicted a different picture. In their corpus of RAs, hedges were used two times more frequently than boosters and approximately four to five times more frequently than attitude markers. As shown in Figure 4, the use of hedges in the ET and HJ corpora has become somewhat comparable over time whereas the use of boosters and attitude markers continue to remain higher in the ET corpus than the HJ corpus. These findings are generally in line with previous studies (Back, 2014; Hyland & Milton, 1997; Shim, 2017), which identified overuse of boosters and underuse of hedges as characteristics of L2 writers and is associated with lower writing proficiency. For instance, Hyland and Milton (1997) revealed that native-English-speaking

writers tend to hedge more than they boost, and the opposite pattern was observed in L2 writers. Similarly, Back (2014) documented Korean students' heavier reliance on boosters in the results and discussion sections of doctoral dissertations compared to their native speaker counterparts; Shim (2017) also revealed that RA abstracts published in Korean journals contain less hedges and more boosters compared to those published in global journals.

The fact that RAs in the ET corpus drew on hedges less frequently and boosters and attitude markers more frequently than RAs in the HJ corpus suggests that writers' persuasive intents are more overtly included in RAs published in *English Teaching* than RAs published in global applied linguistics journals (Hyland & Jiang, 2018). Our diachronic investigation of interactional metadiscourse further shows that this pattern has been rather stable over the past 40 years, highlighting the rhetorical distinctiveness of the two different academic communities within the same discipline, that is, applied linguistics. While increasing one's epistemic commitment through use of boosters and attitude markers is crucial in academic writing, over-reliance on boosters and attitude markers may potentially lead to a less measured and circumspect stance. As Gillaert and Van de Valde (2010) point out, writers' authorial stance is expected to be marked by precision. Scholarly credibility is understood to be established by a deliberate, careful expression of knowledge claims, which acknowledges alternative views of one's discourse community. Thus, judicious use of metadiscourse markers, which entails avoiding heavy reliance on a particular subcategory, seems critical for academic writers to balance their claims for the significance of their research against the expectations of their readers.

6. CONCLUSIONS

The present study contributes to our understanding in terms of the extent to which metadiscourse use varies across two academic discourse communities (the local and global communities) within the same discipline, that is, applied linguistics, over time. The differences between the two corpora (i.e., the ET corpus and HJ corpus) were quite notable, which led us to generate a conclusion that the tendencies that we observed (e.g., lower use of hedges and higher use of boosters/attitude markers) in the ET corpus may be characteristics specific to Korean L2 writers. We refrain from drawing a conclusion, however, that such metadiscoursal tendencies negatively impact the research articles in their likelihood of being considered for publication or being published. The use of metadiscourse is contingent upon various factors surrounding one's research (e.g., how far the findings may or may not generalize to other contexts, to what extent the findings have been confirmed or refuted, how solid the research design was, etc.), and therefore, we must be cautious not to

treat conventionalized metadiscourse strategies as a deterministic criterion for high quality writing or global publishing. Nevertheless, appropriate and varied use of metadiscourse in writing has been found to be indicative of L2 writing development in previous research (e.g., J. J. Lee & Deakin, 2016; Park & Oh, 2018), suggesting that more attention should be given to the use of metadiscourse in L2 (or academic) writing instruction.

We acknowledge that there were several limitations to the present study. First, our corpus of local applied linguistics RAs included research texts from one journal, that is, *English Teaching.* While this journal is known to be one of the representative journals in applied linguistics in Korea, we readily admit that the generalizability of our findings may be limited by a lack of diversity in the sample. Nevertheless, the size of the present corpus (931 articles consisting of 6.4 million words over the period of 1980 to 2021) seems sufficient and adequate for our research purpose, which was to examine the evolution of interactional metadicourse in RAs written by Korean L2 writers. Future research may replicate the current study with potentially a larger corpus of applied linguistics RAs, drawing from more than one journal, to provide a fuller picture of the pattern of change in metadiscourse.

It is also worth highlighting that the comparison between the ET and HJ corpora was made possible by re-normalizing frequency values reported in Hyland and Jiang (2018). We chose this style of analysis in order to provide interpretations of our findings in proximity to their corresponding data in Hyland and Jiang (2018) and to ensure detailed discussion of potential differences in metadiscourse use between the local and global applied linguistics community. However, we acknowledge that the coding schemes used for analyses were not identical between the two studies, and thus, differences could be discussed only in a descriptive way based on the data made available in Hyland and Jiang (2018). Future research that intends to compare metadiscourse use between two groups of writers should consider constructing two corpora within the study to allow for a direct comparison between the two. Lastly, it may be worthwhile to examine whether the use of metadiscourse differs by research design, such as quantitative versus qualitative study design.

Applicable levels: Secondary, tertiary

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