An Analysis of Interactive and Interactional Metadiscourse: Native vs. Non-native Author Dichotomy

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Abstract

Mounting attention has recently been paid to authorial stance in academic writing due to its important role in the interpersonal aspect of writing, encompassing the ways in which authors establish connections, convey attitudes, and engage with an audience. This study was an attempt to explore how native and non-native authors of Applied Linguistics deploy linguistic features to project their authorial stance. To this end, a corpus of 100 research articles authored by native and non-native researchers was collected from journals in the field of ELT. Hyland's Interpersonal Model of Metadiscourse (2005) was employed to differentiate the features produced and figure out how authors navigate the complexities of expressing their meaning while considering the ELT community expectations, and SPSS was used to analyze the data. Based on the results, the proportion of interactive resources was found to surpass that of interactional resources in both native and non-native writings, with transitions being the leading feature, followed by evidentials; and regarding the interactional resources, boosters, and hedges were the most dominant features employed by native and non-native authors, respectively. Overall, no tendency was found towards textuality through which authors consider the target audience (engagement markers), signal their confidence through the portrayal of authors' feelings (attitude markers), and take credit for their findings (self-mentions) throughout the whole corpus, particularly non-native writings. It seems that writing courses offered in non-native contexts require improvements to meet the standards of academic writing. Therefore, the study has important implications for both non-native and novice researchers and course designers.

Keywords: Authorial Stance, Metadiscourse, Applied Linguistics, Interactional and Interactive Resources

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Traditionally, academic writing was viewed as an impartial and objective means of presenting information to a community of scholars, prioritizing content alone (Hyland, 2005). However, the long-established view of language highlighting the neutral, faceless, and fact-oriented discourse has recently been replaced with a new view focusing on interactive and persuasive discourse. The new perspective points to the importance of stance as it is connected to the ability of an author to interpret data, make claims, persuade readers, and express attitudes. To put it in other words, linguists' attention has been progressively moving away from emphasizing the ideational dimension of texts and speech to examining how they operate in interpersonal contexts (Hyland, 2004). As put by Hyland (1994), on the one hand, the academic genre is similar to any other type of writing through which writers are requested to take into account the target audience, their processing problems, knowledge, background, and reaction to the text. On the other hand, the readers are encouraged to anticipate authors' thought patterns, question their stances, and assess the significance of their works.

Stance has garnered attention and been acknowledged progressively across diverse disciplines; it is an index term in the written register in general and academic writing in particular. Stance refers to the authors' expressions of attitudes, epistemic commitment, and interaction with the reader (Aull & Lancaster, 2020). Therefore, authors take a stance toward their attitudes, knowledge, and readers. To put it differently, from a linguistic perspective, stance concerns how authors express their attitudes and positions through language; from an educational perspective, it shows how authors convey their knowledge and claims through effective communication; and from a rhetorical perspective, it regards how authors strategically position themselves to influence readers or listeners (Du Bois, 2007). It is important to recognize that in academic writing, a successful and effective authorial stance is one that aligns the selection of linguistic expressions with the rhetorical functions of the discourse moves (Alotaibi, 2019). In simpler terms, academic writers are encouraged to effectively use various rhetorical strategies grounded in their respective disciplines and sociocultural contexts to structure arguments, present evidence, and assess claims in a way that persuades and convinces their readers (Hu & Cao, 2011).

Stance-taking can be considered a necessity in academic writing since authors should acquire enough awareness of the target community's discursive practices and position themselves in an appropriate stance compared to other voices. According to Ivanic (1998), it is generally accepted that a piece of writing locates the community culturally (collective voice). In the same vein, Hyland (2018) considers academic writing as a collective social practice, highlighting the importance of published texts as the most

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concrete, public, and accessible realization of these practices. Due recognition must also be given to the point that it is through texts and discourse produced by the community of a field that knowledge is authenticated and cultural authority is maintained (ibid.). Researchers establish socially accepted writing conventions, referred to as genres, within academic communities. These conventions encompass both the structure of a research article (textual aspects) and writers' attentiveness to readers' knowledge and attitudes (interpersonal aspects) (Hyland, 2002b).

Taking an assertive stance toward research being reported or reviewed might be a challenging task, particularly for EFL and ESL writers (Chang & Schleppegrell, 2011), which might be due to limited exposure to the language, unfamiliarity with the conventions of a particular genre and discipline, cultural difference, being accustomed to the traditional view of writing, etc. By way of an example, in a study conducted by Neff et al. (2003), it was revealed that compared to American writers, EFL writers either overuse or underuse modal verbs, which might be related to the lack of awareness to express interpersonal meaning due to being only familiar with the traditional view of language focusing on grammar and lexis. To put it in other words, in most of non-native contexts, the emphasis is solely on predetermined activities related to grammatical structures, lexical forms, and textual forms that remain constant across diverse readers, contexts, and purposes (Correa & Echeverri, 2017) and the dynamic nature of writing is ignored. A plausible explanation for this is that this aspect of writing is rarely addressed through explicit instruction in most contexts, and how they perceive authorial stance may influence their stance deployment (Zhang & Zhang, 2021a).

Some researchers have recently addressed pedagogical interventions and metalanguage on stance. Zhang and Zhang (2021b) reported that providing instruction on the dialogic functions of various stance resources, raising students' awareness of their strategic use, focusing on authentic texts with flow of stance features, complementing stance instruction with genre-based knowledge, and providing feedback might be helpful in leading novice scholars towards elucidating the dialogic and interactive nature of writing. In the same vein, to explore how instruction influences interactional metadiscourse markers use, El-Dakhs et al. (2022) reported its positive effect, and the participants viewed the instruction as helpful. Following engaging learners with exploring stance features in published research, Chang and Schleppegrell (2016) pointed out improvements in the participants' stance deployment and rhetorical move structures. Similarly, investigating the impact of explicit instruction, Zhang et al. (2023) noted that the experimental group demonstrated a change in preference towards an assertive stance,

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placing higher value on the strengths of claims. Additionally, they showed a tendency to use a broad range of stance options for different rhetorical purposes.

Stance is indeed multifaceted since it encompasses a complex interplay of various aspects and can be analyzed from different perspectives. Moreover, it might undergo both overgeneralization and undergeneralization. As put by Hyland and Sancho Guinda (2012), on the one hand, the stance has shrunk to a focus on self-mention; on the other hand, it has expanded to include all expressions of personal opinion. It is also argued that given the diverse nature of the stance itself, it is not surprising that the portrayal of stance in language-related research can be extensive and diverse (Englebreston, 2007), which results in various interpretations of the position taken by researchers. Stance-taking includes not only a linguistic and discursive component but also epistemic, sociocultural, and psychological components along with cross-linguistic, cross-cultural, historical, and developmental nature (ibid.). Accordingly, researchers have addressed stance-taking from various dimensions; however, to achieve a comprehensive view of the subject, a combined view should be considered along with controlling as many intervening variables as possible. It is crucial to approach this topic with caution, recognizing the need to focus on the richness and complexity of the collective variables.

Previous Research

The authorial stance can be explored by taking various factors into account. These factors include differences across subsections of a text, linguistic choices, levels of expertise and experience, cultural backgrounds, educational backgrounds, etc. Each of these elements contributes to the overall expression of the authorial stance in academic writing, and the literature surrounding each of these factors is provided below in brief to gain a comprehensive understanding.

Investigating subsections of articles plays a crucial role in the representation of the authorial stance. In an attempt to compare the introduction and discussion sections of doctoral dissertations, Getkham (2016) revealed some sectional differences and similarities in the types, amounts, and functions of the authorial stance. By way of an example, in the discussion section, hedges were the most frequently used features, followed by boosters. However, self-mentions were seldom used in both the introduction and discussion sections of the dissertations. To figure out stance devices in research article conclusions, Abdollahzadeh (2011) indicated that non-native writers would like to deploy emphatics and attitudinal markers with less frequency compared to native writers. Investigating the introduction section of SSCI-ranked journals published articles, Alotaibi

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(2019) reported considerable employment of engagement resources, indicating the authors' acknowledgment of engagement as a crucial interpersonal aspect of research writing.

Studies in this area may explore how nativeness to a language or proficiency in a language influences authors' approaches to stance-taking. Investigating the authorial stance on L2 learners, Zali et al. (2021) showed that the authors used more interactive than interactional metadiscourse, with transition markers being the most frequently used feature. Sahebkheir and Vosoughi (2020) found that both native and non-native English speakers predominantly employed interactive metadiscourse markers, especially transitions, in their research articles. Çakır (2016) observed that native authors demonstrated a higher proficiency in using stance adverbs compared to non-native authors in English research articles. In dealing with the comparative analysis of native and non-native research articles, Shafique et al. (2019) claimed that non-native researchers employ a higher frequency of interactive markers, whereas native English academic writers commonly use interactional markers. Overall, the findings indicate that native authors demonstrate greater persuasiveness in their academic writing by effectively guiding and engaging readers through various stance markers.

Moreover, stance-taking might vary across disciplines (Hyland, 2005). Disciplines hold diverse perspectives on knowledge, employ distinct research practices, and offer varied ways of perceiving the world. Consequently, studying the practices of each discipline will naturally lead us towards greater specificity (Hyland, 2002a). To discover whose voice was heard through article abstracts in the fields of social sciences, humanities, and natural sciences, Stotesbury (2003) demonstrated that in natural sciences abstracts, the writer's voice was predominantly heard, whereas social sciences and humanities abstracts favored the use of passive voice and impersonal metaphor. Likewise, in a recent study on the examination of stance markers spanning two decades within two corpora on four disciplines, Deng and He (2023) revealed that the authors in English and soft sciences tended to express statements more tentatively through the use of hedges and construct their persona more explicitly via self-mentions, in comparison to the authors in other disciplines. Similarly, the study by Deng et al. (2021) suggests that in social sciences and humanities, there is a tendency to structure more specialized texts with less emphasis on clarifying the text and making it reader-friendly, whereas engineering sciences exhibit the opposite trend.

The literature also discusses how the authorial stance is affected by the author's expertise and experience. Zhang's (2023) investigation unveils a notable contrast: while

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experts exhibit diverse citation and stance strategies, students tend to employ a more limited set of strategies. To explore the manifestation of authorial identities among professional and student writers, a study was carried out by Farahanyniya and Nourzadeh (2023), and it was figured out that professional authors engage in a more critical stance-taking using self-mentions and attitude markers and students focus on discourse organization. Wang et al. (2021) reported that student writers employ fewer self-mentions with boosters but more self-mentions with hedges compared to expert writers.

In the realm of academic publishing, journals undergo meticulous review when assessing articles for publication. Among the considerations, interpretations, claims, and criticisms by authors are of crucial importance. Reviewers assess how well authors communicate their viewpoints with the target audience and whether the stance taken aligns with the target community and objectives of the study. In fact, for academics, possessing a strong command of the discourse conventions within their genre and field is crucial to ensure the acceptance of their knowledge production (Nguyen, 2018).

Given the significant challenge that stance-taking poses, particularly for non-native and novice authors, considering the fact that academic research writings are able to present and persuade the audience due to being experiential and evaluative at the same time, and since a limited number of studies have been conducted that specifically address authorial stance within the native-nonnative dichotomy, particularly in the context of interactive and interactional metadiscourse, the present study is aimed at investigating the following research questions:

RQ 1. What stance features do native and non-native Applied Linguistics authors employ to project their authorial stance within research articles?

RQ 2. Is there a difference in the employment of interactive and interactional metadiscourse by native and non-native Applied Linguistics authors throughout the corpus?

Method

Corpus

The corpus (100 research articles) spans specialized ELT journal articles dating from 2014 to 2024. ELT articles are chosen for examining authorial stance because they often involve the analysis of language use in real-world contexts, providing a rich source of data for studying how authors position themselves within their writing and engage with their audience. Additionally, these articles cover a wide range of topics and are authored by scholars from diverse linguistic backgrounds, offering valuable insights into how

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stance-taking varies across different linguistic and cultural contexts. In this research, articles were selected from journals indexed in at least two main databases. This method ensures the inclusion of scholarly works that have undergone rigorous evaluation processes and are widely recognized within the academic community. Purposeful sampling was employed to specifically target articles authored by non-native (Iranian) graduate students and native (Canadian) graduate students. It is important to mention that single-authored articles or articles with the intended corresponding authors were chosen for this study. Additionally, the researcher designed a demographic questionnaire using Google Forms to collect relevant information from the participants. This step ensured that only articles authored by individuals within a similar age range, with comparable educational backgrounds, and at similar experience levels were included in the study to control the potential intervening variables. Before data collection, ethical approval was sought and obtained from the Research Board of the Universities, demonstrating commitment to ethical guidelines and standards.

According to Swales (1990), the discussion subsection mirrors the introduction by transitioning from specific findings to broader implications, and it is a part through which researchers make an attempt to persuade readers. In points of fact, the discussion section serves as a platform for authors to articulate and support their authorial stance by conceptualizing results, interpreting findings, making a comparison with previous literature, noting implications, and guiding future study directions. Therefore, the discussion was selected for analysis with the acceptable length of 400-600 words as discussions within this word range typically provide sufficient textual material for thorough analysis without overwhelming the scope of the study. Besides, limiting the length of discussions helps maintain consistency and comparability across the selected articles, ensuring that the analysis remains focused and manageable.

Analytical Framework

Hyland's (2005) Interpersonal Model of Metadiscourse has two main features: interactive metadiscourse allows readers to engage with the content, facilitating accurate interpretation, and interactional metadiscourse focuses on managing interpersonal aspects such as the markers of attitude, stance, and engagement and also deals with the actors of the interaction and the compatibility of the text with the conventions of a particular community which contribute to the dynamics of discourse.

This model was selected as the framework for analysis. Both characters of communication addressed in the model (i.e., interactive and interactional resources) were analyzed in this study. The reason behind choosing this model over other models is that

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it offers a broad and robust view of metadiscourse (Hyland et al., 2022). As Abdi (2011) has put it, it is straightforward, comprehensive, and recent, making it preferable over other alternatives. Concerning the features of this model, interactive and interactional metadiscourse play crucial roles in communication, providing a framework for understanding how language is used to guide and shape interactions. To obtain data on the authors' metadiscourse features employment, an analysis of the corpus of articles was carried out manually according to Hyland's (2005) list of metadiscourse items as shown in Table 1. And SPSS was used for statistical analysis.

Table 1.

The Interactional Model of Metadiscourse (Hyland, 2005)

Category	Function	Examples
Interactive Rs	*Help to guide reader through the text*	
Transitions Frame Ms Endophoric Ms Evidentials Code glosses	Express semantic relationship between main clauses	in addition / but / thus / and
	refer to discourse acts, sequences, or text stages	finally / to conclude / my purpose is
	refer to information in other parts of the text	noted above / see Fig / in section 2
	refer to source of information from other texts	according to X / (Y, 1990) / Z states
	help readers grasp the meanings of ideational material	namely /e.g./such as/ in other words
Interactional Rs	*Involve the reader in the argument*	
Hedges Boosters Attitude Ms Engagement Ms Self-mentions	withhold writer's full commitment to proposition	might / perhaps / possible /about
	emphasize force or writer's certainty in proposition	in fact / definitely / it is clear that
	express writer's attitude to proposition	unfortunately / I agree / surprisingly
	explicitly refer to or build a relationship with the reader	consider/ note that / you can see that
	explicit reference to author(s)	I/ we / my / our

Results and Discussion

The study was conducted aimed at identifying the most and least frequent types of metadiscourse employed by native and non-native Applied Linguistics graduate students in their academic writing or answering the following research question:

RQ 1. What stance features do native and non-native Applied Linguistics authors employ to project their authorial stance within research articles?

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Table 2 presents the total number of interactive resources found in the research articles authored by native and non-native authors. Overall, the findings of the present analysis revealed that the most frequent features used were transition markers (43% and 42% by native and non-native authors, respectively), which is in agreement with the study conducted by Zali (2021), Sahebkheir and Vosoughi (2020) and also Farahanyniya and Nourzadeh (2023).

The corollary that can be made regarding transitions is that graduate students rely on transition markers to clarify their findings and avoid any ambiguities, which is in line with Deng et al.'s (2021) findings. In fact, transitions enable researchers to link the written text to its context using language, which helps them address readers' needs and understand prior experiences, existing knowledge, and the content (AbdelWahab, 2020). Employing transition markers, authors are able to help readers follow the logical progression of arguments, find out the connections between different subsections and ideas of the article, and reduce the cognitive effort required to figure out the author's chain of thoughts. It is noteworthy that paying close attention to the organization and coherence of the texts in this research might be due to dealing with language-related studies in the case of both groups and being influenced by the traditional view of language in the case of non-natives.

The second category with the highest frequency was evidential (22% and 31% for the native and non-native authors, respectively). The least frequent ones were frame markers and code glosses, with 11% in the native articles, and frame markers, with 8% in the non-native articles. Overall, both groups exhibited very few cases of frame markers. The decision to use fewer frame markers is often a stylistic choice, as some authors rely on frame markers to show shifts between the ideas and sections of a text, but others prefer to guide readers by relying on contexts. Through the analysis done, it was revealed that some of the non-native articles lack the structure that can serve the shifts between the sections and ideas.

Table 2.

Frequency & Percentage of Interactive Resources

	Transitions	Frame Markers	Endophoric Markers	Evidentials	Code Glosses
(native)	489(43%)	128(11%)	142(13%)	247(22%)	122(11%)
(nonnative)	498(42%)	101(8%)	119(10%)	372(31%)	109(9%)

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Table 3 presents the total number of interactional resources found in the research articles authored by native and non-native authors. The most frequent features used were boosters (45%) and hedges (71%) by native and non-native authors, respectively. The least frequent ones were engagement markers for both groups (4% and 2%, respectively). The other features of this category (i.e., attitude marker and self-mention with 3%) were considered as the less frequent features employed by non-native authors as well, which conforms to the results of the study by Abdollahzadeh (2011), which noted that abstinence from attitudinal language was noticeable amongst Iranian experts. Self-mentions and attitude markers, with 5%, were also among the less frequent features employed by the native authors.

Employing hedging, authors might have a tendency to reduce the force of their claims aimed at mitigating the risk of opposition and minimizing the face-threatening acts involved in claim-making (Myers, 1989). One could also argue that authors use hedging aimed at applying depersonalization and indetermination along with showing familiarity with scientific writing conventions to protect the author's face so that a higher degree of acceptance can be achieved from the target research community. Therefore, hedges protect authors from making false statements by either showing a lack of full commitment to the true statement or intending not to express the commitment categorically (Martin-Martin, 2021). However, balanced use of hedges in academic writing is essential for maintaining precision and objectivity (Hyland, 1998), as an excessive reliance on hedging in academic writing might result in reduced clarity, weakened persuasiveness, and reader disengagement. As for hedges, it is crucial to apply boosters effectively to maintain a balanced and authoritative writing style.

Table 3.
Frequency & Percentage of Interactional Resources

	Hedges	Boosters	Attitude Markers	Engagement Markers	Self-Mentions
(native)	145(41%)	161(45%)	17(5%)	16(4%)	18(5%)
(nonnative)	266(71%)	77(21%)	10(3%)	9(2%)	13(#%)

Based on the data in Figure 1, by taking into account both interactive and interactional resources, native graduate students produced more interactive features (1,128 in total) than interactional features (357 in total). With regard to the interactive features, transition markers were identified at the rate of 33%, evidentials at 16%, endophoric markers and frame markers at 9%, and code glosses at 8% in order of the frequency from the highest

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to the lowest one, respectively. Concerning the interactional resources, 11, 10, 2, 1, and 1% were found for boosters, hedges, attitude markers, self-mentions, and engagement markers, from the highest to the lowest frequencies, respectively.
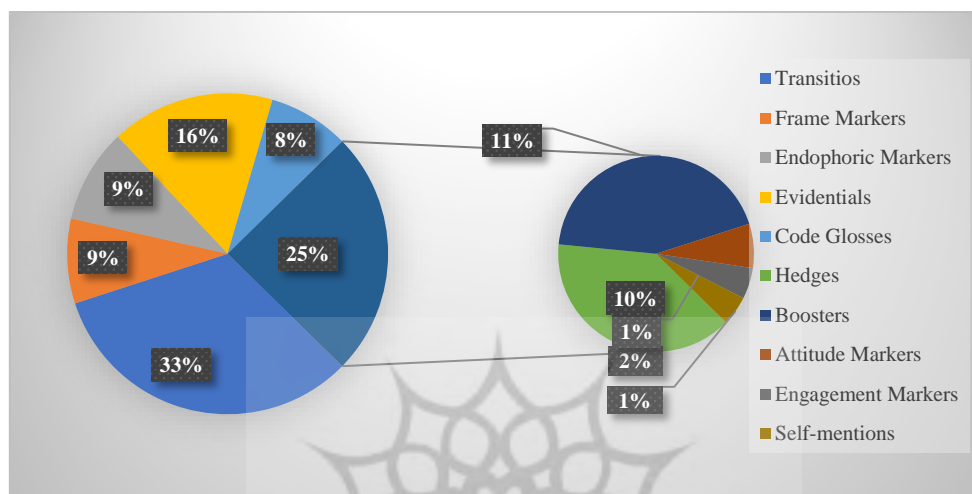

Figure 1. *Percentage of Interactive vs. Interactional Resources (native authors)*

According to the data in Figure 2, the non-native graduate students produced more interactive features (1,199 in total) than interactional features (375 in total). To get into details, transition markers were identified at the rate of 32%, evidentials at 24%, code glosses and endophoric markers at 7%, and frame markers at 6%, which were related to the interactive metadiscourse in order of the frequency from the highest to the lowest one, respectively. While in the interactional metadiscourse, this corpus shows 17% in hedges, 5% in boosters, 1% in self-mentions and attitude markers, and almost 0% in engagement markers from the highest to the lowest frequencies, respectively.

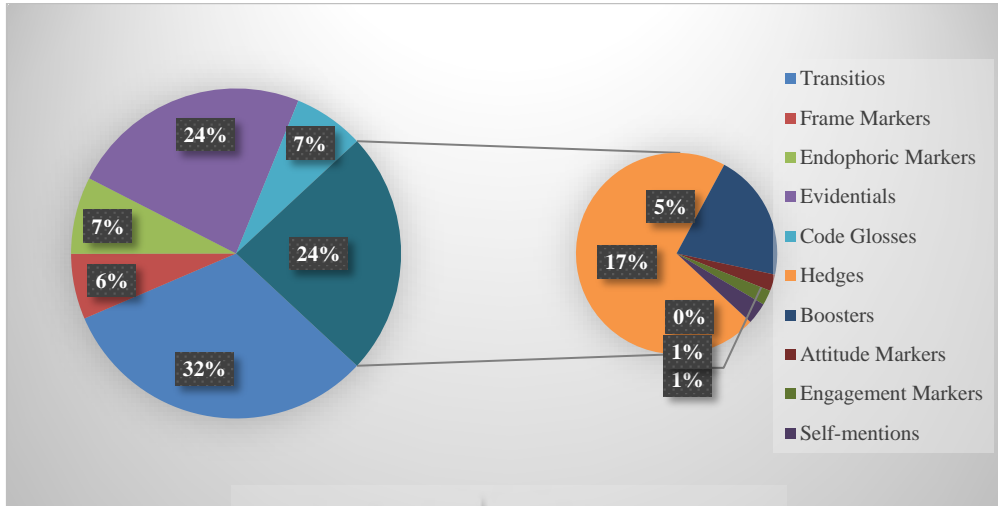AN ANALYSIS OF INTERACTIVE AND INTERACTIONAL METADISCOURSE

Figure 2. *Percentage of Interactive vs. Interactional Resources (non-native authors)*

Taking all features into account, transition markers, evidentials, and boosters constitute the highest proportions in the discussion subsection of the research articles authored by the natives (33, 16, and 11%), other features being almost at a rate below 10%. Concerning the non-native articles, transitions, evidentials, and hedges with 32, 24, and 17%, respectively, are the most common features used. Overall, a limited repertoire of resources was found throughout this corpus, which is in line with the conclusions of the study by Zhang (2023), which reported that the students relied on a more limited repertoire of strategies compared to the other group that used more diverse and intricate stance patterns.

This study was also conducted to figure out if there is a relationship between the native and non-native authors in terms of stance-taking or to answer the following research question:

RQ2. Is there a difference in the employment of interactive and interactional metadiscourse by native and non-native Applied Linguistics authors throughout the corpus?

With regard to the interactive features, as Table 4 makes it clear, no significant difference was found between the native and non-native authors in terms of transition, frame markers, endophoric markers, and code glosses employment. However, a significant difference was found between the two groups in terms of using evidentials. It might be argued that non-native authors cite and refer to other researchers more than relying on their own findings since they tend to give credibility to their study by

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supporting their arguments with relevant, trustworthy evidence. Also, they might find it difficult to express themselves using a foreign language, and they are not fully able to let their own voice be heard.

Table 4.

Chi-square Results for Comparison of Native/Non-native Authors Employment of Interactive Resources

Category	Transitions	Frame Markers	Endophoric Markers	Evidentials	Code Glosses
x^2	0.082	3.183	2.027	25.242	0.732
df	1	1	1	1	1
Sig.	0.775	0.074	0.155	<0.001	0.392

Concerning the interactional features, as shown in Table 5, a significant difference was found between the native and non-native authors in terms of using these features with hedges in favor of non-native authors and boosters in favor of native authors (in terms of frequency). It seems that native authors would like to enhance the certainty of their claims and statements, while non-native authors acknowledge the potential for variations in the claims made. In brief, balancing the use of both can help authors express ideas and make claims with confidence and accuracy. No significant difference was found regarding the other features of this category (i.e., attitude markers, engagement markers, and self-mentions).

A balance should be maintained in terms of interactional features as well. In this study, 161 and 77 cases of boosters were identified throughout the corpus for natives and non-natives, demonstrating a significant difference in favor of native authors. Incorporation of more thoughtful and appropriate boosters can enhance the quality of expression, demonstrate certainty for the claims made, and give credibility to the native author's findings.

Regarding attitude markers, only 17 and 10 cases were observed for the native and non-native authors, respectively, which means that both groups (particularly non-natives) should integrate these features as well to promote persuasion, community-related cultural and contextual awareness, reader-writer relationship, and ultimately communication. Observing only 16 and 9 cases for the native and non-native authors respectively, engagement markers are also of importance in building a relationship with the target community, maintaining the audience's interest, and encouraging critical thinking. Finally, there were only 18 and 13 cases for the native and non-native authors,

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respectively, regarding self-mentions throughout the corpus, which are highly needed to recognize the contributions made and demonstrate authority and expertise on the topic under investigation.

Table 5.

Chi-square Results for Comparison of Native/Non-native Authors Employment of Interactional Resources

Category	Hedges	Boosters	Attitude Markers	Engagement Markers	Self-mentions
x^2	35.623	29.647	1.815	1.960	0.806
df	1	1	1	1	1
Sig.	<0.001	<0.001	0.178	0.162	0.369

Conclusion

Good writing is intricately linked to diverse communicative purposes and supports an interactive relationship between the author and reader (Kamler & Thomson, 2014), which necessitates a thorough understanding of the concept of metadiscourse and its functions as an analytical tool. Accordingly, an instruction addressing metadiscourse in general and an authorial stance in particular seems to be of paramount importance. In fact, although most of the students attend a course at university entitled Academic Writing, they are not provided with appropriate tools dealing with interactions with the community of practice, genre, context, etc., and the curriculum, particularly in EFL contexts mainly focus on some fixed and national learning standards (Zhai, 2021). Though a great deal of emphasis has been put on the role of communication for fostering second language (L2) learning in the last few decades (Farrokhi et al., 2023), it is often the case that despite being proficient, L2 learners shrink from effective communication (Zohrabi & Bimesl, 2022) and it is more evident in written discourse. Therefore, along with providing EFL contexts students with semantic and syntactic rules, a focus should be made on the rhetorical and interactional conventions of a community to enrich the quality of academic writing. Otherwise, not being familiar with the resources of academic discourse can pose challenges for teachers, students, and researchers who aim to be recognized as members of disciplinary communities (Ahmadi, 2021).

This study not only provides insights into the use of metadiscourse markers by native and non-native authors but also highlights shared practices and distinctions. The findings carry implications for academic writing instruction, emphasizing the importance of a balanced and context-aware approach to metadiscourse markers for precision, objectivity,

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and effective communication. The findings of the study also provide writers (particularly EFL and novice writers) with an awareness of conscious word choice along with in-depth and thoughtful analysis. Moreover, figuring out the distinctions between interactive and interactional metadiscourse can strengthen authors' grasp of communication strategies and, accordingly, effective discourse.

This study shed some light on the requirement for effective research article writing. However, further studies can be conducted addressing various variations, including variations across subsections, gender, language, expertise and experience, cultural background, educational background, etc., to educate researchers and students in different settings. This study also sets the stage for future research endeavors that can deeply examine the intricate ways in which authors navigate the linguistic aspect of academic writing by integrating qualitative analyses.

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