

Exploring Authorial Stance Devices and Hedging Strategies in Tertiary Level EFL Learner Argumentation

**Exploración de dispositivos de postura
autoral y estrategias de cobertura en la
argumentación de estudiantes de inglés
a nivel terciario**

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Abstract

We investigated the use of hedges within Interactive Meta Discourse Markers (IMDM) in a longitudinal learner corpus, comprising one semester of written data from 35 tertiary-level EFL students. The analysis involved both group-level observations to track collective trends in hedge usage over time and individual-level analyses focusing on five students' use of hedges throughout the semester. A frequency-based approach was employed to identify the most common hedges, which were then compared to native-speaker data to assess similarities and differences, as well as the collective tendencies of both groups regarding hedge usage. The findings revealed that *should* was the most frequently used hedge in the non-native corpus, with students notably not employing noun phrases in their arguments. The common hedging expressions suggested a pattern of authorial stance, and log-likelihood analysis showed similarities in hedge use. A comparison of the most frequently used hedges indicated an overuse of *should* within the non-native corpus. Additionally, a correlation was observed between students' use of hedges and their exam performance over the semester, alongside positive interaction evident in the collective analysis.

Keywords: Metadiscourse, Hedges, Learner Corpus, Argumentation, Stance

Resumen

Investigamos el uso de atenuadores en metamarcadores de discurso interactivos en un corpus longitudinal de aprendices que abarca un semestre de datos escritos de 35 estudiantes de EFL de nivel terciario. El análisis incluyó tanto observaciones a nivel de grupo para seguir las tendencias colectivas en el uso de atenuadores a lo largo del tiempo como análisis individuales centrados en su uso por parte de cinco estudiantes a lo largo del semestre. Se empleó un enfoque basado en la frecuencia para identificar los atenuadores más comunes, que luego se compararon con datos de hablantes nativos para evaluar similitudes y diferencias, así como las tendencias colectivas de ambos grupos en su uso. Los resultados revelaron que *should* era el atenuador más utilizado en el corpus no nativo, y que los estudiantes no empleaban notablemente frases nominales en sus argumentos. Las expresiones comunes de cobertura sugerían un patrón de postura autoral, y el análisis de la log-verosimilitud mostró similitudes en el uso de dichos matizadores. Una comparación de los matizadores más utilizados indicó un uso excesivo de *should* en el corpus no nativo. Además, se observó una correlación entre el uso de los matizadores por parte de los estudiantes y su rendimiento en los exámenes durante el semestre, junto con la interacción positiva evidente en el análisis colectivo.

Palabras clave: Metadiscursio, Matizadores, Corpus de Aprendiz, Argumentación

Resumo

Investigamos o uso de hedges dentro de meta-marcadores de discurso interativos (doravante IMDM) em um corpus longitudinal de aprendiz, que compreende um semestre de dados escritos de 35 estudantes de EFL de nível terciário. A análise envolveu tanto observações em nível de grupo para acompanhar tendências coletivas no uso de hedge ao longo do tempo quanto análises individuais focadas no uso de hedges por cinco estudantes ao longo do semestre. Uma abordagem baseada em frequência foi empregada para identificar as cercas vivas mais comuns, que foram então comparadas com dados de falantes nativos para avaliar semelhanças e diferenças, bem como as tendências coletivas de ambos os grupos em relação ao uso de cerca viva. Os resultados revelaram que deve ser a cerca de valores mais usados no corpus não nativo, com os alunos notavelmente não empregando frases nominais em seus argumentos. As expressões comuns de cobertura sugeriram um padrão de postura autoral, e a análise logaritar-verosimilhança mostrou semelhanças no uso de hedge. Uma comparação das cercas vivas mais frequentemente usadas indicou um uso excessivo de *dú* dentro do corpus não nativo. Além disso, foi observada uma correlação entre o uso de hedges pelos estudantes e seu desempenho nos exames ao longo do semestre, juntamente com a interação positiva evidente na análise coletiva

Palavras-chave: Metadiscurso, Coberturas, Corpus do Aprendiz, Argumentação, Posição

Introduction

Establishing a clear and authoritative stance in writing is essential for shaping the credibility and impact of scholarly communication, building trust, and conveying expertise. Using language, tone, and first-person pronouns to shape their stance, authors navigate a balance between objectivity and subjectivity, though disciplines vary in their preference for a detached or engaged tone. Interactive Meta Discourse Markers (hereafter IMDM) play a crucial role in signaling the structure of an argument, emphasizing key points, establishing connections between ideas, and enhancing clarity and engagement with readers. Studies conducted so far have mostly focused on comparing native and non-native writing across different themes. In non-native academic writing, along with several other key themes, awareness of MDMs has been explored with different contexts i.e., cross-cultural (Kobayashi, 2016; Lee & Casal, 2014; Özdemir & Longo, 2014; Tarrayo & Duque, 2011; Akbaş, 2012; Akbaş & Hardman, 2018) and cross-disciplinary (Hyland, 1998; Bruce, 2009; Li & Wharton, 2012; Hu & Cao, 2015; Akbaş & Hatipoğlu, 2018). Moreover, instruction on MDMs has not been the primary focus of many courses (Bogdanovic & Mirovic, 2018; Çiçek Tümer, 2021), suggesting a need for specific research on metadiscourse marker instruction and material development (Algı, 2012; Ulucay, 2014; Daşkın & Hatipoğlu, 2019; Sancak, 2019).

Studies on the use of MDMs have revealed the importance of sociocultural norms and expectations in written discourse. As Uysal and Güven (2018) suggest, a lack of understatement and competence might appear when a writer's native-language rhetorical language use and strategies do not meet the requirements of the target language. Hatipoğlu and Algı (2017) indicate the importance of acquiring necessary writing strategies for EFL learners because L2 writing contains "learning, organizing knowledge and thinking within the limits of the specific discourse genre" (p. 86). Therefore, to be considered an argument, it should contain elements such as suggesting different perspectives, using language to vary the degree of certainty, and indicating commitment to or distance from a presented thought (Wentzel, 2018). Hyland (2005) proposes an interpersonal model of metadiscourse that considers interactions between the target of the writing and the writer of the text: interactive metadiscourse and interactional metadiscourse. Interactional MDMs are used to express the writer's evaluation and feelings. It is the personal engagement of writers with readers. Moreover, the interactional MDMs include stance markers (Hyland, 2005) which "refer to the ways writers present themselves and convey their judgments, opinions, and commitments" (p. 176). In recent literature, many studies have investigated the use of interactional MDMs (Ädel, 2006; Bayyurt & Akbaş, 2014; Hatipoğlu & Algı, 2017; Hatipoğlu & Algı, 2018; Yüksel & Kavanoz, 2018). Despite the presence of many studies mostly descriptive in nature (Akbaş, 2012; Dafouz-Milne, 2008; Hyland, 2005; Hyland, 1998), approaching the subject from a longitudinal aspect in the Turkish EFL context and the investigation of how Turkish EFL learners use hedges in the long-

term, considering the effects of explicit teaching and teacher feedback, are gaps that should be filled. Therefore, we aimed to investigate the use of hedges in academic argumentative writings of tertiary-level Turkish EFL learners. To better observe the development of the writers, a longitudinal research design was preferred.

In light of previous studies on MDM instruction, the following hypothesis was formulated: If the linguistic awareness of EFL learners regarding the use of hedges is increased through explicit teaching and feedback from their previous language instruction onward, this will be a positive contributing factor to their academic development.

1.1. Hyland's Model

The author-reader interaction in Hyland's interpersonal model of metadiscourse (Hyland, 2005) qualifies as the most detailed taxonomy.

Table 1. Interpersonal Model of Metadiscourse

Category	Function	Examples
Interactive	Help to guide the reader through the text	Resources
Transitions	Express relations between main clauses	In addition; but; thus; and
Frame markers	Refer to discourse acts, sequences and stages	Finally; to conclude; my purpose is
Endophoric markers	Refer to information in other parts of the text	Noted above; see figure; in section 2
Evidentials	Refer to information from other texts	According to X; Z states;
Code glosses	Elaborate propositional meaning	namely; e.g.; such as; in other words
Interactional	Involve the reader in the text	Resources
Hedges	Withhold commitment and open dialogue	Might; perhaps; possible; about
Boosters	Emphasize certainty and close dialogue	in fact; definitely; it is clear that
Attitude markers	Express writer's attitude to proposition	Unfortunately; I agree; surprisingly
Self-mentions	Explicit reference to authors	I; we; my; me; our
Engagement markers	Explicitly build relationship with reader	Consider; note; you can see that

Source: Hyland (2005)

Literature

Comparative research across cultures shows divergent patterns in how writers use metadiscourse and stance markers. Dontcheva-Navratilova (2016) observed that English linguists used more hedges and boosters than Czech writers, linking this to differences in academic community diversity. In contrast, Farahani (2017) found Iranian EFL writers used more metadiscourse than native English authors. These contradictory findings complicate cultural explanations and point toward the influence of academic community characteristics, disciplinary norms, and L2 writers' rhetorical strategies. These contrasting findings indicate that cultural norms alone cannot explain hedging practices. Findings on hedging in native and non-native writing show considerable variation. Akbaş and Hardman (2018) found Turkish postgraduates to be more authoritative in tone than both English postgraduates and Turkish EFL writers, indicating that factors beyond culture, such as discipline and linguistic environment, shape stance. Similarly, Demir (2018) observed high hedge usage among Turkish academics, though it differed significantly from that of native English writers across most categories. While certain studies attribute these patterns to cultural rhetoric, others -such as Fatahipour et al. (2020) and Kaya and Sofu (2020)- emphasize the importance of explicit metadiscourse instruction. Taken together, these findings show that hedging behavior cannot be attributed solely to cultural or linguistic background, but instead emerges from an interplay of proficiency, disciplinary expectations, and instructional context. Turkish-based studies further highlight how writers' academic trajectories and pedagogical exposure shape their stance-taking patterns. Taymaz (2021) showed that Turkish ELT students demonstrated a noticeable shift in authorial stance across academic progression: while their MA theses contained more hedges, their PhD theses exhibited a higher use of boosters, suggesting increased writer confidence and disciplinary alignment at advanced levels. Studies have shown that L2 writers often depend on hedges to soften claims and avoid overstatement. Kim Loi and Lim (2015) found that hedges are essential for L2 writers in negotiating accuracy in academic discussions, while Hu (2023) reported that international students used hedges more frequently than native writers despite similar overall stance marker distributions. Overall, these varied results show the need for a longitudinal examination of how explicit instruction affects L2 writers' hedging choices and authorial stance, a gap this study seeks to fill.

Method

This study employed a quantitative, longitudinal corpus-based design to examine the use and development of hedging strategies in EFL students' academic writing over one semester and addressed the following questions.

1. What are the frequencies and types of hedges used in their argumentative writings of Turkish EFL students at the tertiary level?
2. How do the students' use of hedges change throughout the academic year?
3. Is there a mutual difference between the use of hedges and the scores students receive at the beginning and end of the academic year?
4. How does the use of hedges differ between native and non-native corpora?

Participants and Sampling

The participants (35) were L1 Turkish students aged 18-30 who were first-year university students attending the same English-medium preparatory school. Before the course began, all students completed an untimed diagnostic essay, independently scored by three experienced raters to ensure that participants represented a comparable proficiency group. A purposive sampling method was followed. Students with a 15-point score interval among the three independent scores were selected as participants.

Data Collection Procedure

Data was collected during the writing class. The participants received 4 hours of classroom instruction per week, four times a month. Throughout the 16-week program, all participants received the same amount of instructional input on the conventions of academic writing, with particular emphasis on meta-discourse markers, hedging techniques, and stance expressions. During the entire period, the students were asked to write untimed argumentative essays, and a total of 9 essays were collected for each student. The writing tasks were given within the same assessment framework, employing the same prompts, time allocation, and feedback procedures. The purposive sampling method was used to ensure participant consistency: only students whose three independent ratings fell within a 15-point range were included in the final sample. Every other week, the instructor-researcher provided content feedback, including visibility issues, power, and authorial presence.

Longitudinal Learner Corpus (KTUCLE) and LOCNESS

The longitudinal learner corpus is compiled from the argumentative essays of the EFL writers ($n=35$). The corpus consisted of 307 texts and 203,434 tokens, and the essays ranged in length from 16,526 to 26,860 tokens. The participants delivered their writings via Microsoft Word documents and handouts. The instructors used the hard copies to give face-to-face feedback to the students and divided each week's products into separate groups for weekly analysis. LOCNESS (The Louvain Corpus of Native English Essays) was selected as a control native corpus.

Table 2. The profiles of KTUCALE and LOCNESS

	KTUCALE	LOCNESS
Tokens	203,434	360,577
Texts	307	322
L1	Turkish	American English, British English
Genre	Argumentative	Argumentative

Analytical Procedures and Raters' Profile

Three expert instructors scored the untimed essays according to a rating criterion adapted from Brooks (2013) that focused on the use of hedges, as well as grammar, spelling, and organization. As previously noted, the intraclass correlation coefficient was used to calculate interrater reliability. The three raters' fair agreement was indicated by the interrater reliability coefficient. The interrater reliability score was 0.70, meaning fair agreement between the raters.

Identification of Hedges and Data Analysis Tools

Each hedge category was analyzed respectively in a sub-corpus of essays from 1 to 9. To identify all the hedges, two different corpus software were used. First, the essays were uploaded to the #LancsBox corpus program for KWIC investigation. Each sentence that contained a hedging word was reviewed to make sure that the words were represented in appropriate functions. The usage of hedging was noted and divided into categories by their function. To avoid any categorization errors, the data was uploaded

to Sketch Engine, an online corpus tool, to double-check hedge use in context. Because the two corpora differ in size, raw frequencies were normalized to allow comparability across corpora. Overall, 307 essays were examined by the researchers for proper categorization.

Results

Across the nine essays, hedge use varied in both frequency and type. “Should” consistently appeared as the most frequent hedge in most essays, except Essay 7, where *may* was dominant. The main hedge types were modal auxiliaries (should, may, would, could), verbs (feel), and adverbs (about, almost, mostly, rather). Modal auxiliaries showed the highest frequencies overall, with should peaking at 5,967 in early essays and remaining the most frequent hedge in most subsequent essays. The verb “feel” and the adverb “about” also appeared regularly among the top five hedges. New adverb hedges such as “rather” (Essay 8) and “mostly” (Essay 9) entered the top-five list later in the term. Although raw frequencies declined slightly by Essay 9, “should” remained the most commonly used hedge. Table 4 shows the types and content of hedges, as well as their numerical distribution across all essays.

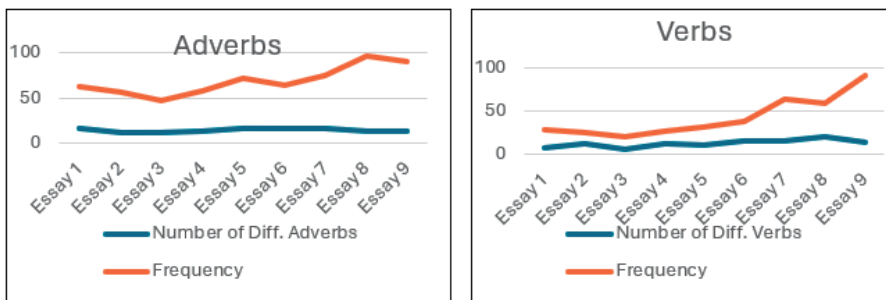
Table 3. Hedge Types and Forms Used in Essays

Hedge Types	Essay 1	Essay 2	Essay 3	Essay 4	Essay 5	Essay 6	Essay 7	Essay 8	Essay 9
Adverb	almost, maybe, about, mostly, rather, sometimes, usually, generally, often, quite, probably, frequently, mainly, largely, perhaps, relatively	about, almost, frequently, maybe, mostly, often, probably, quite, rather, sometimes, usually	about, maybe, rather, quite, sometimes, almost, mostly, frequently, usually, probably, generally, fairly	about, almost, apparently,	about, almost, maybe, quite, rather, mostly, generally, sometimes, often, usually, probably, likely, frequently, largely, broadly, around	about, almost, fairly, frequently, generally, largely, likely, maybe, mostly, often, probably, quite, rather, sometimes, somewhat, typically, usually	about, almost, maybe, mostly, rather, generally, quite, sometimes, perhaps, usually, around, broadly, probably, largely, often, roughly, apparently	about, rather, mostly, usually, sometimes, generally, quite, maybe, probably, often, perhaps, broadly, almost, apparently	about, mostly, often, quite, rather, usually, sometimes, generally, almost, maybe, frequently, largely,
Verb	feel, claim, suggest, tend to, guess, assume, argue	appear, argue, assume, claim, claims, feel, indicate, indicates, seems, suggests, supposed, tend to	feel, assume, felt, indicate, supposed, tend to	appears, assume, assumed, claims, claimed, estimated, feel, felt, indicate, indicates, seems, suggest, tend to	feel, argue, appear, tend to, guess, indicate, claim, felt, argued, argues, appeared	appeared, argue, argues, assume, assumed, claim, claimed, estimated, feel, guess, indicate, seems, suggest, suppose	feel, argues, claims, claim, argued, indicates, appeared, claimed, guess, indicated, suggest, appear, appears, argue, indicate, suggested	feel, claim, argues, tend to, claims, indicates, suppose, argue, argued, appear, indicate, suggest, assume, guess, estimated, assumed, indicated, claimed, appeared, supposed, tends to	feel, argued, claims, argues, claim, seems, indicate, tend to, argue, indicates, appear, assume, suggests, assumed, claimed, appeared, supposed
Adjective	possible	possible	possible	possible	possible, uncertain	possible	possible	possible	possible
Modal Auxiliaries	should, would, may, could, might	could, couldn't, may, might, ought, should, would, wouldn't	should, may, would, could, couldn't, might	could, couldn't, may, might, should, would, wouldn't	should, would, may, could, wouldn't, couldn't, might	could, couldn't, may, might, should, would, wouldn't	may, should, would, could, might, wouldn't	should, may, would, could, might, wouldn't, ought	should, may, could, would, couldn't, might, wouldn't
Adverbial Phrases	-	in my opinion	in my opinion, in general, from my perspective	in my opinion	in my opinion, in general, from my perspective, from this perspective	in general, in my opinion	in my opinion, from my perspective, on the whole	in my opinion, from my perspective, from this perspective, in most cases	in my opinion, in general, from my perspective

Across the nine essays, the variety and frequency of adverbial hedges fluctuated, generally rising in later texts. The number of different hedging adverbs ranged from 11 to 17, with total frequencies increasing from 47 to 96. Overall, Table 7 shows a clear upward trend in hedge use.

The distribution of hedge types used in essays varied throughout time. As seen in Figure 2, the frequency of use of adverbs as a hedge in the student essays had mostly an upward tendency between Essay 1 and Essay 9.

Figures 1 and 2. Use of Adverbs and Verbs as Hedge Over Time



The verbs used as hedges in the student essays showed a frequency similar to that of the adverbs. Figure 3 below shows the frequency of verbs used and the number of different verbs used as hedges in essays 1-9, with significant changes in frequency. Table 4 also shows that across the nine essays, the use of verbal hedges varied considerably in both range and frequency. Early essays drew on a limited set of verbs such as *feel*, *assume*, *claim*, and *tend to*, whereas later essays displayed broader repertoires, reaching up to 21 different verbs in Essay 8. Overall frequencies also rose markedly, from 21-32 in the early texts to 58-91 in the later ones, with Essay 9 showing the highest total. The recurrent dominance of verbs like “feel”, “claim”, “argue”, “indicate”, and “seem” indicates increasing reliance on stance-mitigating strategies as writing progressed. Adjectives used as hedges in the essays display a unique result. As seen in Figure 3 below, out of 9 adjectives, only 2 of them were used as hedges in the essays. The adjective “possible” was used 2 times in essay 1, 7 times in essay 2, 3 times in essay 3, once in essay 4 and 5, 14 times in essay 6 and 7, 8 times in essay 8, and 9 times in essay 9. The adjective “uncertain” was used 8 times in Essay 5.

Figures 3 and 4. Use of Adjectives and Modals as Hedges Over Time

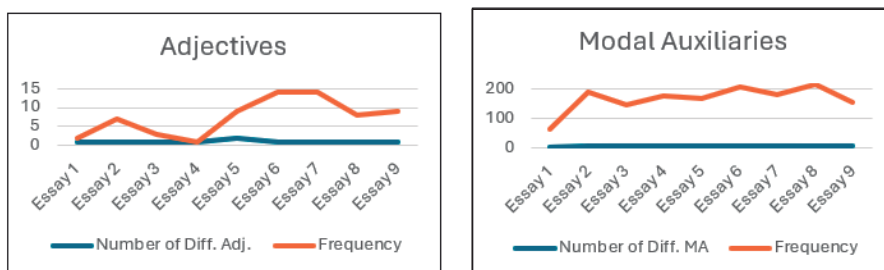
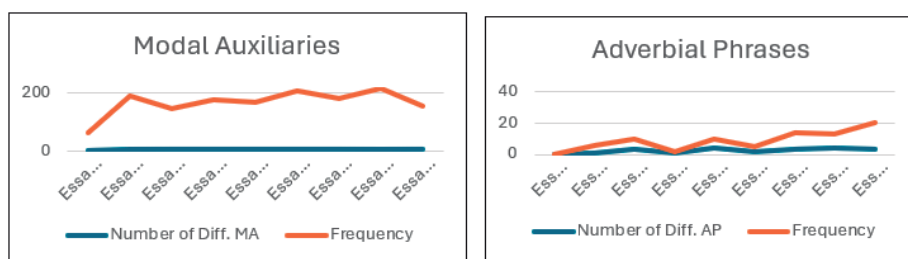


Figure 4 shows the distribution of modal auxiliaries used as hedges across the nine essays. Usage increased notably after Essay 1, where only five modals appeared (total freq. = 65). Essay 2 included all modals, dominated by “should” (127), for a total of 189. Essay 3 featured six modals, totaling 146, again led by “should” (90). From Essays 4 to 7 and Essay 9, all modals except ought were used. “Should” consistently had the highest frequency in these essays (ranging from 51 to 133), followed by “may”, “would”, “could”, and “might”, with occasional low-frequency use of “wouldn’t” and “couldn’t”. Total modal frequencies for these essays were 177, 169, 206, 182, and 154, respectively. Essay 8 was the only essay where all modals appeared, including “ought”, reaching the highest total modal frequency (215), again dominated by “should” (141). Overall, modal auxiliaries were consistently used as the primary hedge type across essays, with should remaining the most frequent modal throughout.

Figures 5 and 6. Use of Modal Auxiliaries and Adverbial Phrases as Hedge Over Time



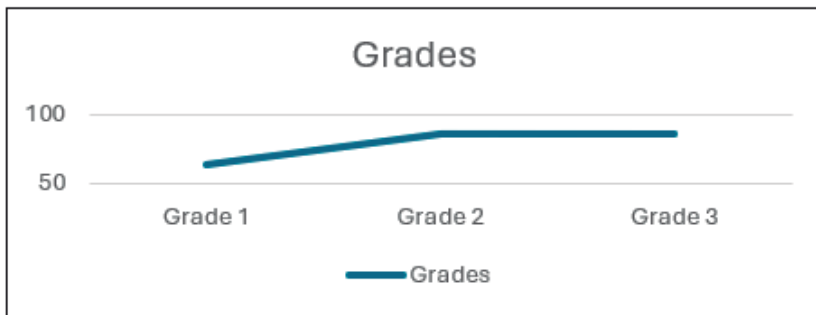
Since none of the noun phrases in the hedges list were used in any of the essays, the final figure for the hedge type frequencies would be adverbial phrases. As seen in Figure 6, except in Essay 1, all the essays included at least one adverbial phrase as a hedge.

Adverbial-phrase hedges appeared in all essays except Essay 1. “In my opinion” was the most common, occurring regularly across the term (frequencies: 6, 6, 2, 4, 3, 11, 10, 14 from Essays 2-9). In Essays 2 and 4, it was the only adverbial phrase used. Other phrases such as “in general”, “from my perspective”, “from this perspective”, “on the whole”, and “in most cases” appeared sporadically with low frequencies, typically between one and four uses per essay. Overall, adverbial phrases were used infrequently and showed considerable variation across essays.

As shown by the use of hedge types above (see Figures 5, 6, 7, 8, and 9), the students most frequently used modal auxiliaries in their writing for each essay. The outcome of the use of modal auxiliaries “the most” was in line with previous studies, such as Bayyurt (2010), who found that first-year students most frequently employ modal auxiliaries as hedges in their writings. Verbs and adverbs as hedges were used most after modal auxiliaries, a pattern parallel to that in Akbaş and Hardman’s (2018) study. The use of adjectives and adverbial phrases in this study foreshadows the students’ authorial stance.

In Figure 7, the grades students received for their essays 1, 6, and 9 were compared. The mean scores of the grades for each essay were given below to examine the effect of MDMs usage on academic writing success throughout the academic year. Similar to the hedge use figures presented earlier, there is an upward trend indicating higher scores students received towards the end of the year. In line with Yaghoubi and Ardestani’s (2014) study, the results indicated that explicit teaching in fact affects student scores positively.

Figure 7. Mean Scores of the Student Grades for Essays 1, 6, and 9



4.1.1. Comparison of Native and Non-native Use of Hedges

All the hedges used by native writers in their argumentative essays can be seen in Table 8 below.

Table 8. Hedge Types and Forms Used in LOCNESS Corpus

Hedge Types	Hedges
Adverb	about, almost, apparently, around, essentially, fairly, frequently, generally, largely, likely, mainly, maybe, mostly, often, perhaps, possibly, presumably, probably, quite, rather, relatively, roughly, sometimes, somewhat, typically, unlikely, usually
Verb	appear, appeared, appears, argue, argued, argues, assume, assumed, claim, claimed, claims, estimated, feel, felt, guess, indicate, indicated, indicates, seems, suggest, suggested, suggests, suppose, supposed, suspect, suspects
Adjective	apparent, doubtful, plausible, possible, probable, typical, uncertain, unclear
Modal Auxiliaries	could, couldn't, may, might, ought, should, would, wouldn't
Noun Phrases	certain amount, certain extent
Adverbial Phrases	in general, in most cases, in my opinion, in my view, on the whole

Out of 32 adverbs, 27 of them were used in the LOCNESS corpus. In the non-native corpus, only 17 different adverbs were used at most. However, when the types of adverbs were compared between the two corpora, adverbs such as “essentially”, “possibly”, “presumably”, and “unlikely” were never used in the non-native corpus. In the native corpus, the adverbs “unclearly”, “uncertainly”, “plausibly”, “broadly”, and “approximately” were never used. When the use of verbs as hedges is examined, it is seen that, out of 34 verbs as hedges, 26 were used in LOCNESS. The verbs “estimate”, “postulate”, “postulated”, “postulates”, “supposes”, “tend to”, “tends to”, and “tended to” were not used in the native corpus. In the non-native corpus, verbs “estimate”, “postulate”, “postulated”, “postulates”, “supposes”, “suspect”, “suspects”, and “tended to” were not used in the essays. When compared, the verbs “estimate”, “postulate”, “postulated”, “postulates”, “supposes”, and “tended to” were mutual verbs that were never used by the writers in both corpora. The difference in the use of adjectives as hedges in the writings becomes particularly apparent. While “possible” and “uncertain” were the only adjectives used as hedges in the non-native corpus, “apparent”, “doubtful”, “plausible”, “possible”, “probable”, “typical”, “uncertain”, and “unclear” were the adjectives that were used as hedges in the native corpus. This significant difference points to the authorial stance that native and non-native writers adopt in academic

writing. As in the on-native corpus, LOCNESS writers used all modal auxiliaries as hedges in their argumentative writing. Another significant difference between native and non-native writers is that while native writers use noun phrases in their writing, non-native writers do not. Out of 3 noun phrases, 2 of them (e.g., “certain amount” and “certain extent”) were used in the writings of native writers. Lastly, out of 13 adverbial phrases, 5 of them (e.g., “in general”, “in most cases”, “in my opinion”, “in my view”, and “on the whole”) were used in the native corpus. When compared to the non-native corpus, it is seen that adverbial phrases such as “in general”, “in most cases”, “in my opinion”, and “on the whole” were used mutually in both corpora. Moreover, adverbial phrases such as “from my perspective”, “from this perspective”, and “in most cases” were also used in a non-native corpus, which would indicate an authorial standpoint of a writer.

In the native corpus, the most frequently used hedge types are listed as follows: modal auxiliaries, adverbs, verbs, adjectives, adverbial phrases, and noun phrases. As seen in Graphic 1, modal auxiliaries, adverbs, and verbs were used 3343, 1868, and 937 times, respectively. Moreover, adjectives, adverbial phrases, and noun phrases were used 220, 66, and 19 times, respectively, in the LOCNESS. In the KTUCALE, modal auxiliaries were used 1,503 times as hedges in argumentative writing. Adverbs, verbs, and adjectives were used 621, 394, and 67 times, respectively, with adverbial phrases used 82 times. The distribution of hedge types by frequency shows that, similar to Turkish EFL writers, native writers used modal auxiliaries the most as hedges in their argumentative writing. Adverbs and verbs as hedges followed the most frequently used hedges list in both groups of writers. However, adjectives, noun phrases, and adverbial phrases as hedges were used more in the native corpus than in the non-native corpus.

In Table 9 below, the most frequently used hedges that are mutual (e.g., “should”, “may”, “would”, “feel”, “could”, and “rather”) in both corpora were compared by the loglikelihood stats to display the overuse and underuse of hedges in argumentative writing. The most frequently used hedge “should” in both corpora was the only overused hedge in the non-native corpus compared to the native corpus (LL=266, p-value: <0.0001). The result indicated a significant overuse in the non-native corpus. The hedge “may” (LL=0.03, p-value: <0.05), “would” (LL=420.39, p-value: <0.0001), “feel” (LL=0.58, p-value: <0.05), “could” (LL=200.33, p-value: <0.0001), and “rather” (LL=4.21, p-value: <0.01) were underused in the non-native corpora. The loglikelihood scores showed significant underuse in their writings, respectively.

Table 9. Log-Likelihood Values and Over/Under Representations of the Common Top 6 Hedges

Hedges	Overuse Underuse	Log-Likelihood
Should	+	
May	-	266/p<0.0001
Would	-	0.03/p<0.05
Feel	-	420.39/p<0.0001
Could	-	0.58/p<0.05
Rather	-	200.33/p<0.0001
		4.21/p<0.01

Discussion

Regarding the first research question, Turkish EFL students used all the hedge types except noun phrases in their argumentative essays. The most frequently used type of hedge in the learner corpus was modal auxiliaries. This finding was consistent with Akbaş's (2014) and Demir's (2018) studies. "Should" was the most used hedge in the overall analysis of the 9 essays, with a total frequency of 868. "May" and "would" follow, with frequencies of 264 and 198, respectively. The students used mostly adverbs as hedges after modal auxiliaries, 621 times in their essays. The top 3 adverbs used in the essays were "about" with a frequency of 141 times, "almost" with a frequency of 61, and maybe with a frequency of 54 times. Verbs were the third-most-used hedges in the essays, with a total frequency of 384. "Feel" was the verb that was used the most as a hedge in the essays, with a frequency of 144. "Claim" and "claims" follow "feel" with the frequencies of 28 and 21, respectively. Only 2 of the adjectives were used as hedges 67 times in the essays. "Possible" and "uncertain" with the frequencies of 59 and 8, respectively. Adverbial phrases as hedges were used 80 times in the essays. "In my opinion" was the most frequently used adverbial phrase in the essays, with a frequency of 56. "In general" and "from my perspective" hedges follow with frequencies of 13 and 7, respectively. Overall, the results of the frequent use of hedges were in line with the studies conducted in the Turkish context (Can, 2006; Bayyurt, 2010). However, no use of noun phrases in the argumentative writings of Turkish EFL writers is an outcome that should be noted for its significance. Further analysis regarding the disuse of noun phrases as hedges in academic writing.

Regarding the second research question, at the beginning of the term in Essay 1, adverbs, verbs, modal auxiliaries, and one adjective were used by at least one student

in the group. None of the adverbial phrases were used in the first essay. Since, on the weekly further training table, the training subject was an introduction to MDMs in general, the frequency of the hedges was lower than in the upcoming essays. Adverbs were used 62 times, verbs were used 29 times, adjectives twice, and modal auxiliaries were used 65 times as hedges in the first essay. “Should”, “would”, and “may” were the most frequently used hedges in Essay 1, as the authors tried to downplay their statements. “Feel” was the third most-used hedge in the essay, following “should” and “would”, indicating that the writers’ language use is more tentative. “Almost” was the fifth most used hedge as an adverb in Essay 1, to indicate the balance between the detachment and commitment of the author from their ideas. In Essay 2, building on previous feedback from the course instructor, students are expected to become familiar with MDMs. Therefore, development in MDM use is expected. Compared with the first essay, students’ use of MDMs increased across all hedge types except verbs, noun phrases, and adverbs. The students also changed the words they used as adverbs in their second essay. For instance, while the students used the adverb generally in Essay 1, they did not use it at all in the second essay, which might be related to the essays’ topics. As in Essay 1, modal auxiliaries are the most frequently used hedges in their writing. In Essay 2, “should” was used 127 times, which is one of the highest frequencies over all essays. For Essay 3, students received additional instruction on MDMs and were informed of the assignment criteria. However, students’ use of hedges decreased in the third essay. Four of the modal auxiliaries were among the top 5 hedges used in Essay 3, which might be related to the essay topic. In Essay 4, students are expected to include more MDMs because they were instructed to use specific academic words that indicate their authorial stance. Consequently, students began using more hedges in their argumentative writing. In essay 5, the use of adverbs, verbs, adjectives, and adverbial phrases as hedges increased. On the contrary, the number of modal auxiliaries as hedges decreased. In Period 6, hedge-focused lesson plans were introduced. Until the last essay, explicit hedge teaching and feedback were exposed to the EFL learners. In Essay 6, while the number of adverbial phrases and adverbs as hedges decreases, modal auxiliaries, adjectives, and verbs as hedges increase. In Essay 7, except for the number of modal auxiliaries and noun phrases, every type of hedge use was increased. In essay 8, adverbial phrases, adjectives, and verbs were used less as hedges. On the other hand, modal auxiliaries and adverbs were used more as hedges in the essay. Lastly, in Essay 9, in contrast to Essay 8, modal auxiliaries and adverbs as hedges were used less than adverbial phrases, adjectives, and verbs. The results of the second research question regarding the most frequently used hedge type in the Turkish corpus, being modal auxiliaries, were in line with other studies conducted in the same context, i.e., Türkiye (Algı, 2012; Kan, 2016; Hatipoğlu & Algı, 2018). Moreover, despite the fact that hedges are an important part of academic writing, the frequent use of hedges in argumentative writings implicates the detachment of the author from the opinions of the discussed topics. The detachment could be related to factors such as the author’s experience, cultural background, or language level.

However, correct use or misuse of hedges in academic writings is out of the scope of the present study. Further analysis could be conducted to determine the appropriate use of hedges in academic writing.

Regarding the third research question, the students received higher scores at the end of the year than at the beginning of the year as a group. However, there were some exceptions in the group in the opposite situation. Furthermore, our hypothesis at the beginning of the study was that if EFL learners' linguistic awareness of the use of hedges is increased through explicit teaching and feedback from their previous language instruction onward, this will be a positive contributing factor to their language development. The discussions presented so far in the study partially confirm this hypothesis. The more explicit teaching students received, the more hedges they used in their writings. Additionally, they benefited from the development, receiving higher scores on their evaluation. As Kim and Lin (2015) state, hedges can be introduced to L2 learners first so that the pragmatic awareness required for their use can be achieved. Moreover, the positive relationship between MDM use and academic success was consistent with Erarslan's (2021) study in the Turkish context. Similarly, Tavakoli et al. (2010) presented complementary results for student scores.

Regarding the fourth research question, the frequencies and types of hedges used in both corpora showed similarities and differences. For example, in both corpora, writers used modal auxiliaries most frequently as hedges in their argumentative essays. Same results were obtained in earlier studies (Bayyurt, 2010; Li & Wharton, 2012; Lee & Deakin, 2019). However, native writers used more modal auxiliaries than the non-native writers. While "would" was the most frequently used hedge in native writers' essays, "should" was the most frequently used hedge in the non-native corpus. "Should" was significantly overused in the Turkish corpus. "May", "would", and "could" were the most frequently used common modal auxiliaries in both corpora, with underuse in the non-native corpus. Moreover, in both corpora, following the modal auxiliaries, adverbs were the second most frequently used hedge type in the writings. Adverbs were used 3 times more in the native corpus. "Rather" was the most frequently used adverb as a hedge in both corpora, and it was underused in the non-native corpus. Although verbs were the most frequently used third hedge type in both corpora, "feel" was the third hedge in the most frequently used common hedges list (see Table 20). Similar to the other hedges, it was underused in the non-native corpus by Turkish novice writers. The differences between the 2 corpora were that adjectives and noun phrases as hedges were used more in the native corpus. On the contrary, adverbial phrases were used more in the non-native corpus as hedges. Reflecting the overall results of the present analysis, the notion of using fewer MDMs in second-language writing was consistent with earlier studies in the same Turkish context (Algı, 2012; Uluçay, 2014; Yüksel & Kavanoz, 2018; Beyazyıldırım, 2022). Moreover, the authorial stance of Turkish EFL writers could be interpreted as hesitant and self-conscious, considering the frequent yet somewhat various use of hedges in their argumentative writings.

Conclusion

The study investigated the longitudinal use of hedging and authorial stance in non-native academic writing. A comparison of hedge use between a native corpus and a longitudinal learner corpus was presented. The data were investigated both manually and automatically using online corpus tools, and the findings showed that explicit teaching increased their language awareness, which in turn resulted in improved language development. The findings have significant implications for EFL education, particularly for language teachers, curriculum developers, and learners. The observed development and variation in students' use of hedging strategies highlight the necessity of explicit instruction in academic stance and epistemic modality as part of writing pedagogy. For language instructors, the findings imply that learners may not naturally acquire nuanced hedging forms- such as modal verbs, adverbials, or nominal expressions of stance- without focused attention in classroom instruction. The introduction of corpus-informed materials and model analyses may help students become aware of the process expert writers follow in argumentation, using measured claims rather than categorical assertions. Such activities as noticing, comparison, and guided rewriting may thus increase students' pragmatic competence and rhetorical sensitivity in academic writing. To curriculum developers, the study implies that writing syllabi must be consistent with data-driven and genre-based instruction that facilitates the recognition of linguistic variability in registered and disciplinary terms. More authentic exposure to target forms would allow learners to investigate hedging in real-life situations and not just follow prescriptive guidelines. To the learner, it is important to establish a sense of hedging to gain academic credibility and communicative appropriateness in an English-medium environment. Future research may adopt a contrastive discourse analysis to determine whether this absence reflects proficiency-related limitations, L1 transfer, or a lack of instructional focus.

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