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INFORMATION TECHNOLOGY STUDENTS' METADISCOURSE: BOOSTING AND HEDGING IN CLASSROOM ARGUMENTATIVE DEBATES

Abstract

Despite many empirical studies focusing on English as a second language (L2) learners' use of different metadiscourse markers in general academic English contexts, a systematic analysis of co-existing discourse strategies of boosting and hedging that contribute substantially to the dynamic flow of conversation in English for specific purposes (ESP) contexts is still missing. Understanding how ESP learners use boosters and hedges in conversation might provide valuable insights into their pragmatic competence. Therefore, this study scrutinizes the functions of boosters and hedges employed by information technology (IT) students in classroom argumentative debates related in content to their discipline. Boosters and hedges were identified and analysed using Sketch Engine. A total of 34 IT students participated in 8 debates in the course English for IT at Brno University of Technology. The whole corpus of the transcribed debates includes 20,052 tokens and 17,016 words. The research results revealed that while boosters were used by IT students to enhance persuasive communication, express stance, and share professional knowledge within their discourse community, hedges were employed to acknowledge the potential gaps in their understanding of the ever-changing nature of IT and mitigate face-threatening acts performed when asserting and rebutting in the debates.

Key words

IT students, classroom debates, boosters, hedges, pragmatic competence.

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1. INTRODUCTION

Information technology (IT) students need to understand new technologies and develop the necessary skills to apply them in their work. They should be aware of the latest trends in the field, such as cloud computing, cybersecurity, artificial intelligence, machine learning and data science. In addition, they are expected to understand how IT solutions can improve current business processes and help companies become more efficient. Apart from technical knowledge, IT students must also have a certain level of social competence, which involves interpersonal communication when working with people from different backgrounds and cultures. Understanding how they accentuate or attenuate the illocutionary force helps them communicate more effectively within their specialized contexts. When IT students know how to use the illocutionary force appropriately, they are more likely to feel confident in their language abilities, which can positively influence their performance in both academic and professional settings. Research into IT students' accentuation and attenuation of illocutionary force is essential for identifying common pitfalls and areas where misinterpretation may occur, enhancing their communication skills, avoiding misunderstandings, promoting cultural sensitivity, and ultimately helping them succeed in their academic and professional endeavours. Therefore, this study aims to analyse how IT students used boosters and hedges during classroom debates and to assess how these linguistic devices are employed to achieve a specific communicative purpose.

One of the ways to improve IT students' communication skills in the English language is through structured classroom debating, which requires their active participation and allows them to become more articulate and listen actively while others are speaking. Within the English for specific purposes (ESP) teaching and learning context, classroom debating aligns with a learner-centered approach as it encourages students to actively engage with the language and collaborate with team members on constructing their arguments in a safe learning environment without fear of being judged or corrected by the teacher. To help students overcome the fear of speaking when their contributions are recorded, teachers can (1) regularly record classroom debates so that students become more comfortable with the process, (2) highlight that recordings are tools for self-improvement rather than evaluation, (3) allow students to review their recordings privately and set personal goals for improvement, and (4) encourage peer review and feedback sessions where students can offer each other supportive and constructive critiques, fostering a sense of community and shared learning. These strategies can help students focus on their progress rather than on fear of judgment.

Through classroom debates where two opposing teams discuss controversial topics related to the specific disciplines, students can enhance their skills in information collection, organization, critical evaluation, examination and evaluation of evidence, as well as effective presentation and refutation of arguments. By exchanging ideas with other team members and opponents, they can learn how to

express themselves accurately and fluently while developing language proficiency. Constructive feedback and active listening allow students to refine their language use, correct mistakes, and improve their ability to articulate complex ideas clearly and confidently. Using different communication strategies, such as planning, self-monitoring, paraphrasing, circumlocution, self-repair and repetition, also improves fluency by helping students convey their ideas more effectively and navigate conversations more easily. Several studies have highlighted the educational advantages of such debates, including the improvement of oral communication, critical thinking, argumentation and problem-solving skills (e.g., Akerman & Neale, 2011; Cinganotto, 2019; Darby, 2007; Kennedy, 2007; Medina, 2020; Želježič, 2017). Additionally, debates contribute to disciplinary and interdisciplinary learning, offering a unique educational experience and excellent pre-professional training (el Majidi et al., 2018; Merrell et al., 2017). Classroom debates in an ESP context provide students with an opportunity to refine their language skills and develop their pragmatic competence, enabling them to effectively communicate, understand and respond to the expectations of their audience and participate in meaningful and persuasive discussions. Students can learn to employ politeness strategies to express their opinions and counterarguments while maintaining a cooperative and respectful atmosphere during the debate.

Classroom argumentative debates represent a suitable task for clinical elicitation of learner language because they require the use of spontaneous language to achieve some non-linguistic purpose, and they involve communicative processes associated with the real world (Ellis & Barkhuizen, 2005; Tarone & Swierzbin, 2009). By examining the corpus data collected from classroom debates related to the particular discipline, researchers can gain insight into the pragmatic competence of ESP students and understand how they convey their intended communicative purposes in the discipline-specific context. Corpus analysis might help uncover the pragmatic functions of metadiscourse markers and enable researchers to examine how these markers contribute to students' communicative goals, such as expressing certainty, hedging claims, mitigating assertions, indicating evidence or sources, establishing rapport, or demonstrating engagement with the audience.

2. THEORETICAL FRAMEWORK

2.1. Accentuation and attenuation of the illocutionary force

According to Vanderveken's (2001) explanation, when speakers produce meaningful utterances, they consistently establish a link between the content of their propositions and the real world through a specific illocutionary force. The illocutionary force can be either accentuated or attenuated through boosting and

hedging strategies (Holmes, 1984; Hyland, 1998a, 2005; Sbisà, 2001; Urbanová, 2003). While accentuation of the illocutionary force is a linguistic strategy used to make the intended meaning more prominent or stronger, attenuation is used when the speaker wants to convey a more indirect, polite, or less forceful meaning (Urbanová, 2003). The utilization of both boosting and hedging also reflects the speaker's rapport with fellow discourse community members because these metadiscourse strategies are employed to evoke shared presuppositions (Hyland, 2005). Urbanová (2003) explains that boosting serves to strengthen and emphasize meaning, making it explicit, reinforced, and pronounced, whereas hedging leads to a subdued, indirect, and implicit expression of meaning. She further adds that it is a process that weakens the illocutionary force in situations where face loss, either for the speaker or the listener, is likely.

Hedging is considered a violation of the politeness principle, primarily aimed at eliminating conflict in communication, thus contributing to the implementation of negative politeness strategies (Holmes, 1990; Urbanová, 1996; Wilamová, 2005). Negative politeness involves using language to respect the autonomy and face of the other person. It acknowledges that individuals have their own boundaries and desires and seeks to navigate those sensitively in communication (Brown & Levinson, 1987). Hedging serves both referential and affective functions (Holmes, 1995; Urbanová, 1996, 2003). In terms of reference, hedging is used to express uncertainty, assumption, a lack of commitment to truth conditions, and a lack of competence to make a judgment. In affective terms, hedging is employed to convey tact, and detachment, and disclaim the validity of a judgment for social reasons.

In contrast, boosting mainly focuses on fostering solidarity and mutual agreement, allowing the speaker to establish a shared understanding and emphasize their affiliation with the discourse community (Hyland, 1998a, 2005). This contributes to positive politeness strategies, emphasizing the importance of creating a sense of inclusivity, unity and rapport with the audience (Brown & Levinson, 1987; Holmes, 1990; Hyland, 2005; Myers, 1989; Urbanová, 1996). Positive politeness is aimed at making the other person feel comfortable and valued in a social or professional setting.

Boosters ("force modifying expressions") and hedges ("indicators of standpoints") play a crucial role in argumentative discussions by balancing conflicting objectives and reflecting the speaker's assertiveness and assessment of the situation (Van Eemeren et al., 2007, p. 29). Boosters enable speakers to navigate the credibility of their information, strategically presenting it as widely accepted to establish its perceived truth. In contrast, hedges indicate that a statement is grounded in plausible reasoning rather than absolute certainty, providing the audience with the freedom to challenge it (Holmes, 1984; Hyland, 1998a; Myers, 1989). Their usage sheds light on the forcefulness employed by the speaker and their evaluation of the discourse dynamics, ensuring stability amidst conflicting viewpoints.

2.2. Metadiscourse markers in English L2 learners' spoken language

Several empirical studies focus on metadiscourse markers in the spoken language of English L2 learners.[1] Nikula (1993) analysed the use of hedges and boosters in twelve informal conversations by English L2 (Finnish) speakers in comparison with English L1 (British) speakers and Finnish L1 speakers. Her findings revealed that despite the advanced proficiency of English L2 speakers, they displayed a lack of awareness regarding the importance of hedges and boosters. Moreover, their conversations appeared more detached and less engaged with each other and with the topic than L1 speakers of either English or Finnish.

Müller (2005) examined and compared the usage of metadiscourse markers, such as *so*, *well*, *you know* and *like*, in the retelling and discussion of a silent movie by English L1 (American) speakers and English L2 (German) speakers. According to her findings, the frequency of the examined markers differed across and within both groups. *So* was the most used marker by both groups, while *like* was favoured more by English L1 speakers, and *well* occurred more frequently among English L2 speakers. Although both linguistic and non-linguistic factors contributed to the usage of these markers by both groups of speakers, English L2 speakers displayed a preference for *well* over *so*.

In her study on hesitation markers, Gilquin's (2008) research explores the usage patterns of advanced English L2 (French) speakers. The study reveals that even though these learners tended to overuse pauses and other non-lexical devices as hesitation markers, they underused expressions such as *like*, *I mean* and *you know*, which are crucial for maintaining fluency.

In Aijmer's (2011) research into English L1 and English L2 (Swedish) speakers' metadiscourse, it was found that Swedish learners tended to rely excessively on the use of *well* as a fluency device to handle difficulties in managing speech. On the other hand, they demonstrated a tendency to underuse it for expressing attitudes or attitude-related purposes, which highlighted the disparity in the usage of *well* between the two groups.

Halupka-Rešetar (2014) analysed the use of metadiscourse markers in requests by 37 English L2 (Serbian) speakers. Her research shows that intermediate ESP students produced requests with very limited variation in marker types and usage frequency. For example, they used both the booster *really* and the hedge *a bit* only in three cases.

Magliacane and Howard (2019) conducted a longitudinal study of English L2 (Italian) speakers (15 university students and 15 au-pairs) to investigate the role of learner status in socio-pragmatic development by comparing two study abroad experiences, namely university studies and au-pair employment in Ireland. Their

[1] For metadiscourse markers in ESP written discourse, see e.g., Limnios (2022) and Shchemeleva (2019).

results point to differences and similarities in the development of using the pragmatic marker *like* by the two learner groups. English L2 speakers altered their usage of *like* in conversation after spending six months abroad, and both groups of learners demonstrated a significant increase in their frequency of using this marker over time. However, their usage frequency did not reach L1 English speaker levels in all situations.

Lin (2020) analysed similarities and differences in the use of metadiscourse markers by the committee and candidates during the master's thesis defences in Taiwan universities. Her analysis revealed a significantly high occurrence of the modifiers that marked the common ground (e.g., *you know*, *of course*). Furthermore, the similarities in the type and frequency of the modifiers used by both groups indicated that their genre-bound textual and interpersonal functions could be effective rhetorical strategies for co-structuring coherent, institutionally appropriate defence discourse and signalling original contributions to disciplinary knowledge. The differences were ascribed to the specific influence of institutional duties, dynamic roles, and communicative aims.

Most empirical studies examining metadiscourse of English L2 speakers have been conducted by Buysse (2012, 2015, 2017), whose research focused on investigating the usage of metadiscourse markers *so*, *well* and *you know*. Buysse's (2012) multidisciplinary investigation into the metadiscourse marker *so* showed that English L2 (Belgian) speakers used *so* significantly more often than English L1 speakers and the students of English Linguistics used *so* slightly more often than those of Commercial Sciences. Buysse (2015) further explored the use of *well* by English L2 (Dutch, French, German, Spanish and Chinese) learners. His research results indicated that the usage of *well* was more prevalent in the learner corpora across the board, except for the Chinese English L2 speakers' corpus, where its incidence was minimal compared to the English L1 speakers' corpus. This could be attributed to a combination of factors, including the learners' limited repertoire of metadiscourse markers, extensive exposure to the use of *well*, interference from their native language, and the specific speech context. Buysse's (2017) comparative analysis of the metadiscourse marker *you know* revealed that both English L1 speakers and English L2 (Dutch, French, German, Spanish) speakers employed *you know* in contexts characterized by high intersubjectivity. However, the main distinctions between these speaker groups emerged in terms of frequency of usage. Learner groups consistently utilized *you know* less frequently than their English L1 counterparts, and a significantly lower rate was observed in the number of learners within each group who employed *you know* at all.

The studies showed that English L2 learners use metadiscourse markers differently than L1 speakers, with variations in marker preference and frequency influenced by linguistic, non-linguistic, and contextual factors. Only Nikula's (1993) study focused on how English L2 speakers use boosters and hedges in conversation. However, her study did not provide a comprehensive list of the most frequent boosters and hedges that English L2 speakers used. Besides, all the above-

mentioned studies, analysed specific metadiscourse markers employed by English L2 speakers within a general academic English context, so there remains a gap in a comprehensive and systematic analysis of boosting and hedging strategies in an ESP context. The spoken production of ESP learners is expected to differ from the production described in the above studies due to the specialized nature of the language used in ESP (English for IT) contexts, which requires using metadiscourse markers that reflect the precise, logical, and often collaborative nature of their field, ensuring clarity, accuracy, credibility and the ability to address potential uncertainties or challenges inherent in the ever-evolving technology landscape.

2.3. Research objective and research questions

The literature review in the previous section indicates that more attention should be paid to two counteracting yet co-existing strategies that reflect the degree of the ESP speaker's commitment to the message, i.e., accentuation and attenuation of the illocutionary force. Understanding the most frequently used boosters and hedges might provide insights into the specific linguistic tools that IT students rely on, which is essential for tailoring language instruction to their needs. Analysing the functions of boosters and hedges can help elucidate how IT students assertively present their arguments and diplomatically navigate disagreements, fostering better interpersonal communication and collaboration within their discourse community. This knowledge is vital for developing targeted ESP curricula that enhance both linguistic competence and pragmatic skills in IT-specific contexts.

For this reason, this study aims to analyse how ESP (English for IT) students utilized boosters and hedges to establish solidarity and eliminate conflict in argumentative debates. To address this research objective, this study will attempt to answer the following research questions:

RQ1: Which boosters and hedges did IT students use most frequently in classroom argumentative debates?

RQ2: What was the function of boosters in relation to the debate propositions and IT students' discourse community?

RQ3: What was the function of hedges in relation to the debate propositions and IT students' discourse community?

3. METHOD AND CONTEXT

3.1. Participants

The present study relies on the analysis of classroom argumentative debates conducted within the English for IT course, which was taken by first-year IT

students at Brno University of Technology in the Czech Republic. A total of 34 students (16 Czechs and 18 Slovaks) participated in debates with a cumulative duration of 131 minutes. The student's English language level was B2+ according to the *Common European Framework of Reference for Languages* (CEFR) since the prerequisite for enrolling on the course is successful completion of the B2 level course of academic English. All participating students gave written consent that the recordings of their debates could be used for the pragmatic analysis of their English language.

3.2. Task

The students engaged in debates centred around the following propositions relevant to their study programme: "Closed platform (iOS) is better than open platform (Android)", "Human labour should be replaced with AI", "Firefox is better than Google Chrome" and "The Dark Net should be regulated like the rest of the Internet". Each of these propositions was debated twice by two different teams (each student debated only once), resulting in a corpus comprising a total of 8 debates.

Two teams of two or three speakers took part in each debate. In the debate, the affirmative team had the task of defending the proposition using arguments, while the negative team tried to rebut the affirmative defence. Therefore, they did not have to prove that the proposition was not valid, but they had to show why the opponents' arguments did not apply or support the proposition. Before the debate, a coin toss determined which team had the privilege of selecting their preferred side of the proposition to defend. Students were given two weeks to get ready for the debate, during which they were required to delineate their roles within their respective teams, perform a comprehensive review of relevant literature, gather supporting evidence and illustrative examples, and construct an argumentative framework.

Each debate consisted of six stages: 1) a three-minute opening speech by the affirmative team given by one or two speakers, 2) the first four-minute cross-questioning, 3) a three-minute speech by the negative team given by one or two speakers, 4) the second four-minute cross-questioning, 5) one-minute conclusion by one of the affirmative team's speakers, and 6) one-minute conclusion by a negative team's speaker. During the debate, one student was appointed as a timekeeper who adhered strictly to the schedule and signalled the beginning and end of the various stages.

3.3. Procedure

All debates were transcribed and subjected to analysis using the corpus query system Sketch Engine (Kilgarriff et al., 2004). The complete corpus of 8 transcribed debates conducted by IT students comprises 20,052 tokens and 17,016 words.

Boosters and hedges were analysed using two different methods: a corpus analysis and a manual analysis. The purpose of the corpus analysis was to determine the frequency of the most common boosters and hedges occurring in the debates. Since certain words and expressions (e.g., *just*, *I think*, *you know*, *so*, *like*, *of course*, *yet*, *will*) had multiple meanings depending on the context, they required manual assessment by two inter-raters (ESP teachers specialized in applied linguistics) who had to consider their actual function. The context-sensitive boosters and hedges had to be distinguished, e.g., the confidential *you know* (booster) generally precedes the proposition and signals the status of assumed knowledge or belief specific to a particular discourse community, whereas the tentative *you know* (hedge) tends to occur medially or finally and expresses addressee- and message-oriented uncertainty (cf., Holmes, 1986, 1990). Next, the function of certain words had to be determined, e.g., *yet* functions as a booster if it is a viewpoint adverb or coordinating conjunction, unlike *yet* as an adverb of time. Similarly, it is important to distinguish between the booster *so* as a degree adverb and *so* as a coordinating conjunction. Both inter-raters analysed each instance of context-sensitive metadiscourse markers manually to verify their function. Since the inter-rater agreement was 93.37% initially, the inter-raters discussed the functions of the particular markers again until they reached total agreement. The value of Cohen's kappa calculated to measure inter-rater reliability was $\kappa = 0.86$, which indicated that agreement was almost perfect according to Landis and Koch (1977, p. 165).

4. RESULTS AND DISCUSSION

This section will focus on the occurrence and function of boosters and hedges used by IT students in the debates concerning the modification of the illocutionary force. Table 1 presents the statistical outline of the most frequent boosters and hedges identified through the corpus and manual analyses. The items that could serve as both boosters and hedges (e.g., *I/we think*, *just*) and those with multiple meanings (e.g., *will*, *would*, *could*, *yet*) were classified according to their contextual use.

4.1. Function of boosters in argumentative debates

Table 1 shows that the booster *will* was the most frequently used (64 hits), aligning with previous research that revealed its most frequent occurrence as a modal verb in conversation (Biber et al., 1999) and as a booster (Hyland, 1998a, 2005). Students used *will* especially in the opening stages of the debates to state their goals and emphasize the importance and inevitability of the discussion, setting a clear and assertive tone for the debate (example 1). Here, *will* conveys a sense of assurance and determination about the future event, reinforcing the speaker's intent and

confidence in the planned discourse. They also used *will* to raise and thematize the main issues related to the proposition with assurance and confidence, as illustrated in example 2, where *will* is combined with the booster *surely*, thus making their speech more persuasive.

(1) *Today we **will** be discussing...*
(2) *Surely there **will** be new jobs created to manage this automation process*.

Booster	No. of hits	% of the whole corpus	Hedge	No. of hits	% of the whole corpus
will (not)	64	0.3192	would (not)	102	0.5087
just	61	0.3042	like	81	0.4039
really	55	0.2743	well	66	0.3291
I/we think	46	0.2296	should (not)	54	0.2693
yeah	35	0.1745	I/we think	53	0.2643
believe	31	0.1546	just	24	0.1197
yes	31	0.1546	could (not)	20	0.0997
actually	23	0.1147	I mean	19	0.0948
very	21	0.1047	probably	19	0.0948
true	16	0.0798	might (not)	15	0.0748
so	15	0.0748	you know	14	0.0698
always	10	0.0499	may (not)	13	0.0648
I/we (all)/they know	10	0.0499	maybe	13	0.0648
pretty	10	0.0499	possible	13	0.0648
definitely	9	0.0449	quite	12	0.0598
sure	9	0.0449	usually	9	0.0449
in my opinion	8	0.0399	guess	8	0.0399
even though	7	0.0349	almost	7	0.0349
not only...but (also)	7	0.0349	imagine	6	0.0299
of course	7	0.0349	believe	5	0.0249
however	6	0.0299	kind of	5	0.0249
yet	5	0.0249	something/stuff like that	5	0.0249

Table 1. The most frequent boosters and hedges in classroom argumentative debates

Using *will* in the cross-questioning stages allowed students to sound persuasive, confident and assured while putting forward their arguments and making their predictions (example 3).

(3) *They **will** never be replaced except for the ones you already stated.*

Just, the second most frequent booster (61 hits), is associated with positive politeness since it often underlines the speaker's emotional bond with the listener and indicates that both of them think similarly and understand each other (Aijmer, 2002). In debates, this booster frequently occurred in expressive contexts where the speakers aimed to convey rapport and cooperation with listeners. In example 4, *just*

in front of the extreme verb *love* suggests that the speaker is exaggerating, which creates common ground and contributes to a friendly atmosphere (Aijmer, 2002). According to Erman (1997), young people often use *just* to maximize the effect of their utterances and to convey their "authority as to the truth of or attitude to the proposition" (p. 96). In examples 5 and 6, the speakers used *just* to support their claims to assure the listeners of the qualities of closed platforms and Google Chrome.

(4) *But in the end I as usually **just** love the customizability and I hate restrictions from the bottom of my heart…*
(5) *I think that closed platforms can have much better security because... er... they're... they're considered they're **just** considered to be much stable and safe.*
(6) *But Google Chrome has the extensions to match it up. It **just** works better with extensions...*

In the context of argumentative debates, *just* also functioned as a persuasive marker, especially in negative sentences where speakers wanted to dispute their opponents' claims and accept the speakers' point of view (see examples 7 and 8).

(7) *You **just** can't do that on iPhone or iOS.*
(8) *… you **just** don't want your whole performance being occupied by the browser…*

The metadiscourse marker *just* falls under context-sensitive markers that can have varying functions depending on the specific context (Holmes, 1986, 1990; Urbanová, 2003). While Brown and Levinson (1987) and Wierzbicka (1991) argue that *just* attenuates the illocutionary force, Aijmer (2002) and Beeching (2016) suggest that it can either attenuate or accentuate the illocutionary force. In debates, *just* as a hedge (24 hits) often occurred in requests (examples 9 and 10), which reflected negative politeness.

(9) *If I may **just** step in...*
(10) *So I **just** wanted to ask that if you are aware of the... of the fact that some pages are especially made for Google Chrome and Mozilla can't load them.*

In the debates, IT students used another marker *I/we think* that depended on the context. In example 11, the speaker strategically employed *I think*, as a "deliberative" (Holmes, 1986) booster, positioned at the beginning of the sentence with level stress followed by the high-value modal *should*. Such a combination aimed to strengthen the speaker's statement, convey a sense of certainty and provide reassurance. A "tentative" (Holmes, 1986) hedge *I think* is shown in example 12. In this case, it appears at the end of the sentence with falling intonation, indicating a sense of doubt and hesitation and serving as a negative politeness marker.

(11) ***I think** it's something that you should really keep in mind…*
(12) *It just works better with extensions and that's fine **I think**.*

Really, the second most common booster in American English conversation (600 hits per million words) and the third most common in British English conversation (350 hits per million words) (Biber et al., 1999, p. 565), was the most frequent booster with the function of assurance (55 hits). In the debates, it occurred either as a modifier of the following adjective (example 13) or in the form of an adverbial (example 14).

(13) *Apple has a **really** big competition all the Android-using phones.*
(14) *Yes it **really** depends on user... user-to-user expectations and... er... needs.*

Assurances such as *definitely*, *sure* and *of course* are considered strongly assertive boosters used by speakers to emphasize their unwavering belief and conviction. Since these epistemic stance markers comment on the reality of a proposition, students used them to emphasize their claims and identify their propositions as factual or real in order to persuade their opponents to agree with their arguments during the debates (examples 15–18). *Of course* (7 hits) was the third most frequent booster expressing assurance that occurred in the debates. Holmes (1990, p. 190) labels this booster as "confidential" since it refers to the assumed knowledge or beliefs that are personal and specific to a particular discourse community. Similarly, Hyland (1998a) and Biber et al. (1999) observe that *of course* signals that a proposition is based on shared pre-existing knowledge, strategically aligning one's claim with the accepted knowledge within the discipline, as the confident assertion about the quality of the browser in example 17 shows. Confidential *of course* generally precedes the proposition (example 18), where it signals the status of the proposition as mutual pre-existing knowledge of the discourse community of IT students.

(15) *Artificial intelligence can **definitely** help many humans in many aspects of their everyday life.*
(16) *You can be **sure** about that if robots are a machine but you can't trust human.*
(17) *Chrome is **of course** the winner here.*
(18) *Yep **of course** if the person is really good let's say with Linux then he can make... er... very powerful applications.*

Agreement or understanding-showing boosters *yeah* (35 hits) and *yes* (31 hits) occurred quite frequently in the debates. These hearer-oriented boosters are essential for expressing solidarity and positive attitudes whose purpose is giving feedback in the process of interaction or backchannelling (Urbanová, 2003, 2008). Students used them to refute the opponent's arguments, as shown in example 19, where the speaker responds to the opponent's emphasis on the importance of browser privacy; to accept the opponents' arguments (example 20) and to support their team members during the cross-questioning stages of the debates, as illustrated in example 21, where the second student (S2) supports and develops the arguments of the first student (S1).

(19) *Uh-huh.* ***Yeah****. I knew you would ask this as the privacy is nowadays a big question… er… but do you actually know that Chrome has many settings…*
(20) ***Yeah****. That's fair point.*
(21) S1: *... It has established a collaborative online environment with many free and low-cost resources that can help with customizing and reviewing code for example reusing open-source libraries and forking open-source projects instead of starting from scratch or waiting on a third party to provide coding updates.*
S2: ***Yeah****. And furthermore I would like to add Android is much more cost effective.*

Besides the speaker-oriented attitudinal booster *I/we think*, students also used *I/we believe* and *I/we know* to emphasize their subjective attitudes, accept their personal responsibility, make their utterances more assertive and strongly convey their involvement in the debates. The most straightforward expression out of the above-mentioned is *I believe* because of its "determinate meaning, encoding the speaker's own beliefs" (Fetzer, 2014, p. 68). The expressions *I/we believe* in examples 22 and 23 indicate that students did not only make it obvious that they believed in something but also that they anticipated doubt on their opponents' side and assumed that the opponents required additional information to grasp the fact that their assertion encompassed a subjective concept. In example 23, the phrase *our team believes* contributes to boosting the shared collective knowledge and the prominent sense of obligation indicated by the modal *should*.

(22) *We* ***believe*** *that Firefox is better than Google Chrome in both user experience and quality.*
(23) *...****our team believes*** *we* ***should*** *really care about protecting personal data and not just enjoy the convenience of Google Chrome.*

Attitudinal boosters such as *pretty*, *so*, *very* and *always* serve to amplify the intensity of gradable adjectives (examples 24–26) and verbs (example 27). In the context of the debates, students employed these boosters to captivate their listeners' attention and emphasize the significance of their arguments in relation to their opponents.

(24) *Those can be* ***pretty*** *useful for more demanding users.*
(25) *Er... if Google Chrome is* ***so*** *good why do you need to unify the user interface with others to make it easier to transfer?*
(26) *The iPhone ensures that all applications and features work the way they were intended by Apple allowing a* ***very*** *easy user experience.*
(27) *There will* ***always*** *be occupations that cannot be replaced by AI such as nurses therapists artists politicians.*

Discourse-organizing boosters emphasize parts of the message and foreground specific information within the utterance structure (Holmes, 1984; Urbanová, 2003, 2008). Table 1 indicates that the most frequent discourse-

organizing boosters occurring in debates were *actually*, *even though*, *not only… but (also)*, *however*, and *yet*. Example 28 illustrates the co-occurrence of *however* used to introduce a statement that contrasts what has been said previously and the correlative coordinators *not only… but (also)* used to present two related surprising or unexpected pieces of information and stress the meaning of addition. The presented argument is even more stressed in example 29, where the speaker used inversion. *Yet* (example 30) introduces a statement adding importance to the Internet users' anonymity while contrasting it in a certain way.

(28) ***However*** *in the distant future I still believe the replacement is* ***not only*** *beneficial* ***but also*** *inevitable.*
(29) ***Not only*** *does it support multiple platforms* ***but*** *the interface is very user friendly which is the first thing people notice...*
(30) *Anonymity and regulation do not go that well together* ***yet*** *we need anonymity desperately our very own privacy*.

The use of boosters by IT students served several purposes. Students used boosters to assert dominance in the debate and limit the potential for their opponents to challenge or negotiate their stance. However, the function of boosters in the context of debates was not solely about asserting dominance or restricting negotiating space. Boosters also served the ends of positive politeness (Hyland, 1996, 1998a; Myers, 1989; Urbanová, 1996) because students used them to convey respect for their opponents' views, acknowledging the value of different viewpoints within their discourse community. By employing boosters, students not only expressed their convictions but also signalled their expertise and familiarity with the subject matter. This contributed to establishing credibility within their discourse community and reinforced the notion that their arguments were rooted in a deep understanding of the discipline of IT.

4.2. Function of hedges in argumentative debates

The use of hedges in the form of the modals *would*, *could*, *might* and *should* (examples 31–34) indicated a negative politeness strategy adopted by students. This strategy served the purpose of avoiding face-threatening acts while discussing controversial topics.

(31) *This* ***would*** *also make some people more isolated and lazier than they already are.*
(32) *And there* ***could*** *be some serious security breaches because of this.*
(33) *I don't know enough about this... this topic but you* ***might*** *be right.*
(34) *So I think we* ***should*** *protect our data more and we'll achieve this using Firefox.*

Similarly, the purpose of *like* (examples 35 and 36) was to mitigate the possibility of the speaker being perceived as adopting a strongly assertive and critical stance.

(35) ***Like*** *isn't it better to make a good user interface and... er... not care about how the others look?*
(36) *And* ***like*** *why would people pay for the actions of other people?*

The use of speaker-oriented hedges *I (don't) think*, *guess*, *imagine*, *possible* and *probably* (examples 37–41) demonstrated the students' need to signal the lack of relevant information when making their judgements. Besides, they showed students' doubt and respect for the opposing teams' views and indicated that information was presented as an opinion rather than an officially recognized fact.

(37) *And you also mentioned... er... performance in virtual machines which* ***I don't think*** *is really relevant because you can use such a margin of marginal case to justify what you need to.*
(38) *...and I* ***guess*** *it just depends on what the customers and the company prioritize what they want to... what they want to have.*
(39) *I cannot* ***imagine*** *robots to be as effective in this in these kinds of jobs as human beings.*
(40) *Obviously it's not an easy job but with today's technology we think that it should be* ***possible*** *to regulate the Dark Web...*
(41) *It's the browser that uses* ***probably*** *the... the highest amount of RAM and I have to say that Firefox isn't exactly the best with RAM either.*

I mean (example 42) was used to provide clarification or offer additional context to a previous statement. By using this hedge, students signalled that they were about to elaborate or provide further explanation on their previous point. It served as a conversational marker that directed the listener's attention to a specific aspect of the debate. Similarly, in example 43, the second student (S2) used the hedge *well* to consider and discuss the consequences of what the first student (S1) had said.

(42) ***I mean*** *uniformity is well and good but open source provides a much bigger community support and competition between each other.*
(43) S1: *Yeah, but yeah... the Android users choose freedom of your security... er...*
S2: ***Well*** *but how do you regulate it? Do you have some kind of...*

The hedge *you know* encompassed both message-oriented uncertainty and addressee-oriented uncertainty. As explained by Holmes (1990), the former indicates uncertainty regarding the linguistic formulation of the message itself, while the latter pertains to the speaker's uncertainty about the attitudes or anticipated response of the listener in the interaction. Examples 44 and 45 illustrate these functions.

(44) *And the jobs we are talking about replacing are more the… **you know** the boring ones the repetitive ones.*
(45) *…then it is your choice **you know** that this site will have all of your data and it can possibly monitor your conversations.*

Students used approximators and diminishers, such as *usually*, *quite*, *to a certain extent*, *almost* and *roughly*, which either indicated that the used verb expresses more than is strictly relevant (Quirk et al., 1985; Takimoto, 2015), as example 46 illustrates, or softened the assertiveness of representative speech acts, thus promoting a more cooperative and respectful tone in the debate (examples 47 and 48).

(46) *Close platforms **usually** have a reputable brand such as Apple or SAP for example, which can offer you a trustworthy and reliable product.*
(47) *They are also **quite** significant.*
(48) *Well yeah that's true to **a certain extent** but if you are active on social media and you have your real personal information linked to it then it is your choice…*

The hedge *kind of* has an affective meaning because it mitigates face-threatening acts (Aijmer, 2002; Beeching, 2016). In example 49, the speaker tries to hedge their opinion of the Dark Web that is popularly associated with illegal activities. Even though Urbanová (2003) claims that *kind of* is a typical component of informal English conversation, Lin (2010, p. 1175) observes that it ranks thirty-seven in the most frequent two-word expressions in the British Academic Spoken English Corpus (BASE), occurring more often than pragmatic markers *of course*, *I mean* and *in fact*.

(49) *… Dark Web is the last sanctuary for people that are just looking for privacy and I think that everyone **kind of** deserves their own secrets.*

Examples 50 and 51 show that students used the expressions *something like that* and *stuff like that* especially when they referred to things that were similar or related to what they were discussing and when they felt it was unnecessary to specify details.

(50) *That it would be dangerous or something… **something like that**.*
(51) *But as you say in China or Russia there is a lot of censorship and **stuff like that**…*

Throughout the debates, students frequently combined boosters and hedges to avoid possible objections of their opponents while leaving them in no doubt of their own claims. Examples 52 and 53 illustrate how they presented their arguments more effectively and contrasted the epistemic validity of their utterances using both boosters and hedges. In example 52, the speaker first uses the booster *I believe* and

then draws a more tentative conclusion using the hedge *could*. In example 53, the speaker introduces a hypothetical statement with *I mean* that is accentuated through the epistemic stance adverb *surely* and epistemic prediction coded by *will*, thus indicating a further claim to support their argument.

(52) *Well **I believe** nowadays it **could** cause a lot as well as developing such software **could** cost a fortune.*
(53) ***I mean** if the majority of workers are to be replaced by machines **surely** the machines **will** have great power.*

The results show that hedging fulfilled a referential and affective function (Holmes, 1995; Hyland, 1996, 1998a, 1998b; Urbanová, 1996, 2003). By using hedges, IT students could introduce elements of uncertainty and ambiguity into their assertions, which allowed them to sound less confrontational and express their viewpoints more tentatively or cautiously, softening the assertiveness of their statements. Since the debate propositions were controversial and might involve a face-threatening act, hedges served the purpose of negative politeness that is frequently related to sensitive or controversial topics. Through hedges, IT students demonstrated a willingness to consider alternative viewpoints, fostered a constructive dialogue and reduced the risk of confrontation. This tactful approach helped them maintain a respectful, collaborative and inclusive discourse environment. The field of IT is constantly evolving, so IT students seemed to employ hedges to acknowledge the intricacies or potential gaps in their understanding, which demonstrated their intellectual honesty and recognition of the subtle nature of issues related to IT.

5. PEDAGOGICAL IMPLICATIONS

By understanding how metadiscourse markers are employed, ESP teachers can design instructional activities and learning materials that specifically target the development of this aspect of students' pragmatic competence. Here are some pedagogical approaches and tasks to effectively teach the use of metadiscourse markers in ESP contexts.

(1) Identification and analysis tasks

While listening to or watching recordings of professional lectures, presentations, and discussions by English L1 speakers, students identify instances of metadiscourse markers and analyse their functions and impacts on communication. Teachers can provide students with guided worksheets for noticing and classifying these markers according to their functions. Similarly, students can highlight and analyse metadiscourse markers in transcripts of professional interactions or written texts. Class discussions on how these markers affect the text interpretation can follow up these tasks.

(2) Substitution tasks

Teachers design tasks where students replace boosters with hedges and vice versa in given sentences or passages. For example, students modify sentences to see how changing the level of certainty or politeness affects the overall message. They can discuss the nuances of these changes and their implications for communication.

(3) Impact role-playing tasks

Teachers assign role-playing tasks where students practice different communication scenarios, such as discussing a project or negotiating a contract. Students should use metadiscourse markers appropriately to manage their tone and achieve specific rhetorical effects. Afterwards, they might reflect on how their use of markers influenced their effectiveness in the role-play.

(4) Contextual role-plays

Teachers provide scenarios of role-plays with varying levels of formality and complexity where students address professional problems while adjusting their use of metadiscourse markers based on the context (e.g., formal versus informal meetings in professional contexts). Students can discuss which markers are most suitable for various situations and justify their choices.

(5) Persuasive speech practice

Students prepare and deliver persuasive speeches on relevant topics within their field and use metadiscourse markers to enhance their arguments. Then, they engage in peer review sessions and assess each other's use of metadiscourse markers, which can help them gain insights into their use of markers and learn from their peers' strategies.

(6) Self-evaluation and reflection

Teachers assign students to record their speeches and evaluate their use of metadiscourse markers. Students should identify strengths and areas for improvement in using boosters and hedges effectively. Teachers can provide a structured reflection sheet to guide this self-assessment. Another option is encouraging students to keep critical reflection journals where they write about their experiences, challenges, and insights gained from using metadiscourse markers effectively in different communication contexts.

By incorporating these activities into ESP teaching, educators can help students develop a nuanced understanding of metadiscourse markers and their functions, ultimately enhancing their ability to communicate effectively in their professional fields.

6. CONCLUSION

The present study contributes to existing research on the pragmatic competence of ESP (English for IT) students. IT students constitute a distinct discourse community characterized by their unique language use, shared knowledge, and professional practices. They must communicate with each other by participating in technical

discussions, working collaboratively in teams and presenting their work clearly and persuasively. Their pragmatic competence is vital because it allows them to effectively communicate technical information and build and maintain professional relationships in the IT sector. For this reason, a systematic analysis of IT students' pragmatic competence is necessary.

The findings indicate that IT students effectively utilized boosters to strengthen the impact of their statements, employing a positive politeness strategy that conveyed a mutual understanding and emphasized their membership within their discourse community. Positive politeness strategies helped students maintain positive social relationships, such as showing interest in their opponents' opinions and emphasizing shared ground throughout the debates. Boosters thus enabled students to create the impression that their views or claims are collectively agreed upon. On the other hand, by employing negative politeness strategies through hedges, students could express their differing views, assert claims, disagree, refute, or rebut while minimizing the impact on their opponents' self-image.

Research into boosting and hedging in classroom argumentative debates has yielded valuable insights, but it also comes with certain limitations. The results are specific to IT students and may not be generalizable to other disciplines. Moreover, the students' proficiency and confidence levels in classroom debating and familiarity with the subject matter could significantly influence their use of hedging and boosting, potentially skewing the results.

In the future, conducting a comparative analysis between the results of this study and how English L1 speakers, especially students at technical universities, employ boosters and hedges during debates would yield significant benefits. Such a comparison would help identify specific areas where English L2 speakers could improve their metadiscourse awareness, which, in turn, could inform the adaptation of learning materials and pedagogical approaches to better address these areas of improvement.

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