Logos, Ethos, and Pathos in Argumentative Essays of Third Year English Students at the University of Bouira: A Metadiscoursal Perspective

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Abstract:

This exploratory study examined the use and perception of metadiscourse markers and Aristotle's rhetorical appeals of *logos*, *ethos*, and *pathos* in argumentative essays written by 22 third-year English majors at Bouira University in Algeria. The research employed a mixed-method approach using structured interviews, and in-class written argumentative essays. For the in-class argumentative writing, results showed a higher usage of interactional markers to signal the reader's involvement with attitude markers dominating, followed by transitions and hedges. Among rhetorical appeals, *pathos* was the most used one amongst students. For interviews, results revealed that the students had a basic understanding of what argumentative writing involves. They acknowledged the existence of a relationship between the writer and their audience but had split beliefs regarding the use or non-use of *pathos* for argumentation. Implications from this research for teaching argumentative writing are presented.

Keywords: *Logos*; *ethos*; *pathos*; argumentation; metadiscourse.

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1. INTRODUCTION

Persuasion is tightly connected to the use of metadiscourse, the part of language study that seeks to analyze how discourse is textually organized, and how the writer-reader relationship is marked. Specifically, metadiscourse markers perform rhetorical functions; *logos*, *ethos*, and *pathos* are herein embedded, occurring in various situations. In effect, a number of studies were carried out to investigate this relationship. Metadiscourse markers and rhetorical appeals were examined with regard to some business genres (Huang & Rose, 2018; Najeeb & Rezqallah, 2023); political discourse (Mai, 2016; Abusalim et al., 2022); and journalistic writing (Dafouz-Milne, 2008; Liu & Zhang, 2021). Nevertheless, the scope of argumentative essay writing has not adequately been addressed. This inadequacy lies behind our endeavor to explore this particular aspect of academic writing. Hence, these are our research questions:

a. Which metadiscourse category has the highest frequency in the students' essays?

b. What is the most prevailing discourse marker used in the students' essays?

c. What is the most common rhetorical appeal (*logos*, *ethos*, *pathos*) used in the students' essays?

d. How can *logos*, *ethos*, and *pathos* be explained through the use of metadiscourse markers?

e. How do the students perceive some aspects related to metadiscourse and rhetorical appeals?

2. Literature Review

2.1. Rhetorical Appeals

Persuasion has three principal elements: *logos*, *ethos*, and *pathos* (Aristotle, as cited in Perloff, 2003). This triad has majorly been beneficial in understanding persuasion-related subject matter. Keith and Lundberg (2008) observe that Aristotle's work has had such a paramount impact for a long time thanks to the way it deals with the intricacies of persuasion.

2.1.1 Appeal to Logic: *Logos*

According to Lauer (2004), *logos* constitutes one of the three persuasive modes as recognized by Aristotle. *Logos* implies the utilization of appeals to reason and authenticity of arguments. And, in reference to arguments, Ramage et al. (2009) affirm that *logos* is based on reasonable arguments which are described as being congruent, coherent, reasonable, well-founded, and credible.

Keith and Lundberg (2008) distinguish that logic, as presented in a speech, is synonymous with *logos*. The motive behind the speech is to change the audience's thoughts by showing them the way via logical progression. At the same time, Ramage et al. (2009) report that *logos* is utilized to make one's point credible and alternatives implausible.

2.1.2 Appeal to Credibility: *Ethos*

Arguments alone do not suffice to persuade an audience; their

questionability is one significant point of discussion. According to Keith and Lundberg (2008), argument is not the sole facet of persuasion for plausible arguments can often be doubted. Audiences have impressions about the speaker, i.e., in case a particular point of view is accepted, confidence is built between them.

Lunsford and Ruszkiewicz (2016) note that according to Aristotle, the most crucial of the three appeals is the argument pertaining to character: if the audience does not believe the speaker, everything else will be meaningless. In the same way, Lauer (2004) states that *ethos* is persuasion represented in texts via the speaker's character and virtue. Keith and Lundberg (2008) remark that the audience's evaluation of *ethos* involves checking credibility and dependability of the speaker.

2.1.3 Appeal to Emotion: *Pathos*

In addition to *logos* and *ethos*, *pathos* is a third essential mode of persuasion. According to Keith and Lundberg (2008), *pathos* pertains to the audience's emotions as recognized in their speaking. The audience can feel fed-up, annoyed, or excited in reaction to what is being said; or, they may have general or direct emotions. The fundamental issue here is that *pathos* helps the audience comprend the message and judge it. Effective speakers seek to align the audience's emotions with the points being presented.

On an equivalent basis, Lauer (2004) writes that *pathos* is the use of rhetorical appeals that target the emotions of the audience. Through Aristotelian eyes, a skilled speaker is required to have a broad understanding of the various emotions, mental states, and the types of individuals who react to such emotions.

2.2 Metadiscourse

According to Crismore et al. (1993), metadiscourse is defined as the language resources in texts, whose main goal is to help the receiver structure, understand, and assess the information at hand.

Fundamentally, Hyland (2005) presented an interpersonal model of metadiscourse markers which is divided into two categories: interactive and interactional. First, the interactive category is related to the fact that the writer is cognizant of his audience's participation through the accommodation of knowledge, interests, rhetorical expectations, and processing abilities. Second, the interactional category which pertains to the writer's awareness of achieving interaction by commenting on their message. The primary purpose here is to present their position in a plain manner, allowing the reader to take part in the text and respond to it.

Table 1. Interpersonal model of metadiscourse

Category	Function	Example
Interactive resources	**Help to guide the reader through the text**	
Transitions	Express relations between main clauses	In addition, but, thus, and
Frame markers	Refer to discourse acts, sequences, or stages	Finally, to conclude, my purpose is
Endophoric markers	Refer to information in other parts of the text	Noted above, see Fig, in section 2
Evidentials	Refer to information from other texts	According to X, Z states
Code glosses	Elaborate propositional meanings	Namely, e.g., such as, in other words
Interactional resources	**Involve the reader in the text**	
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	Emphasize writer's attitude to proposition	Unfortunately, I agree, surprisingly
Engagement markers	Explicitly build relationship with reader	Consider, note, you can see that
Self-mentions	Explicit reference to author(s)	I, we, me, our

Source: Hyland (2005, p. 49)

2.2.1 Interactive markers

a. Transition markers: Hyland and Tse (2004) point out that transition markers are chiefly about the use of conjunctions which express addition, contrast, and result in a given text. Hyland (2005) writes that this subcategory can be illustrated by some conjunctions and phrases. Addition: *and*, *furthermore*, *moreover*, *by the way*, etc. Comparison: *similarly*, *likewise*, *equally*, *in the same way*, *correspondingly*, *in contrast*, *however*, *but*, *on the contrary*, *on the other hand*, etc. Consequence: *thus*, *therefore*, *consequently*, *admittedly*, *anyway*, *in any case*, etc.

b. Frame markers: According to Hyland (2010), frame markers are "references to text boundaries or elements of schematic text structure, including items used to sequence, to label text stages, to announce discourse goals and to indicate topic shifts" (p. 129). Moreover, Hyland (2005) expounds that frame markers can be implemented to order elements of a text: *first of all*, *then*, *and*, *at the same time*, *next*. They can also show stages within a text: *to summarize*, *in sum*, *to begin with*. They announce the purpose behind the discourse: *I believe here*, *my purpose i*s, *the paper suggests*, *I hope to persuade*, *there are several reasons why*. And, they can signal topic shifts: *well*, *right*, *OK*, *now*, *let us return to*.

c. Endophoric markers: Hyland and Tse (2004) maintain that endophoric markers are expressions used to steer the reader's attention to other parts of

the text, enabling the reader to focus on the writer's purpose. Hyland (2005) claims that endophoric markers are expressions that help in directing the reader's attention toward what the writer wants to highlight such as interpretation or reading of something. Examples include: *see Figure 2*, *refer to the next section*, *as noted above*.

d. Evidentials: Evidentials signal the origin of information from other sources (Hyland & Jiang, 2018). Hyland (2010) exemplifies that evidentials are about using: *according to X*, *Z states*, etc.

e. Code glosses: Code glosses are used to mark the restatement of propositional information in a different way (Hyland & Tse, 2004). Hyland (2005) illustrates that code glosses are expressions like *this is called*, *to put it differently*, *that is*, *this can be defined as*, *for instance*, etc.

2.2.2 Interactional markers:

a. Hedges: The writer's use of hedges indicates hesitancy about informational content (Hyland, 2010). Hedges are words like *possible*, *may*, and *maybe* that signal the writer's acknowledgement of alternative views. They underscore the subjectivity of the view, presenting information as an opinion instead of a fact, making the position open to negotiation (Hyland, 2005).

b. Boosters: Boosters convey a sense of certainty and highlight the potency of statements (Hyland & Tse, 2004). Boosters encompass words like *clearly* and *obviously,* which enable writers to dismiss alternatives, shun opposing perspectives, and articulate certainty in their statements (Hyland, 2005).

c. Attitude markers: According to Hyland (2010), attitude markers convey the writer's evaluation of propositional information, expressing feelings such as surprise, obligation, agreement, importance, and more. Hyland (2005) posits that attitude markers are conveyed through attitude verbs like *agree* and *prefer*, sentence adverbs like *unfortunately* and *hopefully*, as well as adjectives such as *appropriate*, *logical*, and *remarkable*.

d. Engagement markers: Engagement markers actively engage readers by directing their focus or involving them in the text, employing second person pronouns, imperatives, questions, and remarks: *take into account*, *note that* (Hyland & Jiang, 2018).

e. Self-mentions: They describe the extent to which the writer is present in a text, determined by the prevalence of first-person pronouns and possessive adjectives such as *I*, *me*, *mine*, *exclusive we*, *our*, *ours* (Hyland, 2005).

3. Methodology

Our investigation of metadiscourse markers and rhetorical appeals was shaped by an exploratory design. Kothari (2004) highlights that "the major emphasis in such studies is on the discovery of ideas and insights. As such the research design appropriate for such studies must be flexible enough to provide opportunity for considering different aspects of a problem under study" (p. 36).

To carry out the study, we selected a population of 22 third-year students majoring in English at the University of Bouira in Algeria. The

sample was chosen based on the fact that argumentative essay writing is only introduced in the Written Expression module during the third year. As for the research tools, data was collected first via the administration of structured interviews, including both close-ended and open-ended questions. Additionally, a writing test was administered where the students were prompted to write argumentative essays on the following topic: *Should women stay at home or go out to work*? The in-class writing requirement ensured immediate submission of their papers. Following this, we employed a mixed-method approach that was both quantitative and qualitative. In quantitative terms, the study processed numerical data considering the different frequencies of use of metadiscourse markers and rhetorical appeals; on the other hand, it was qualitative for it incorporated descriptive instances of the findings obtained from the different tools.

4. Results

In the results section, we analyzed data from 22 argumentative essays; also, we examined the interview answers focusing on students' perceptions of some metadiscourse elements and rhetorical appeals, namely, *logos*, *ethos*, and *pathos*. The findings were analytically processed in alignment with the research questions outlined at the beginning of the study.

4.1 Writing Test Analysis

Following an exhaustive analysis of the students' essays, we found that the total count of metadiscourse markers amounted to 1413. Upon categorization of these markers, we noticed a significant disparity in their usage. The students predominantly employed the interactional category with 994 (70.35%) markers to signal the reader's involvement. Conversely, the students used 419 (29.65%) interactive markers to guide their audience through the essays.

In addition to the overarching categories, our analysis focused on the different subcategories. Figure 1 below shows the frequency of metadiscourse markers in the students' essays. Findings revealed that the highest frequency of markers was recorded in the attitude markers subcategory with a number of 316 (22.36%) instances. Transitions came second with 278 (19.67%) markers. The hedges subcategory ranked third with 228 (16.14%) occurrences. Moreover, almost equal occurrences were observed in two subcategories: engagement markers with 199 (14.09%) instances and boosters with 196 (13.87%) markers. Next, the students used 72 (05.10%) frame markers, 64 (04.53%) code glosses, and 55 (03.89%) self-mentions. The lowest frequencies pertained to endophoric markers with only 03 (00.21%) markers, and evidentials with 02 (00.14%) instances respectively.

Fig 1. Frequency of metadiscourse markers in the students' essays
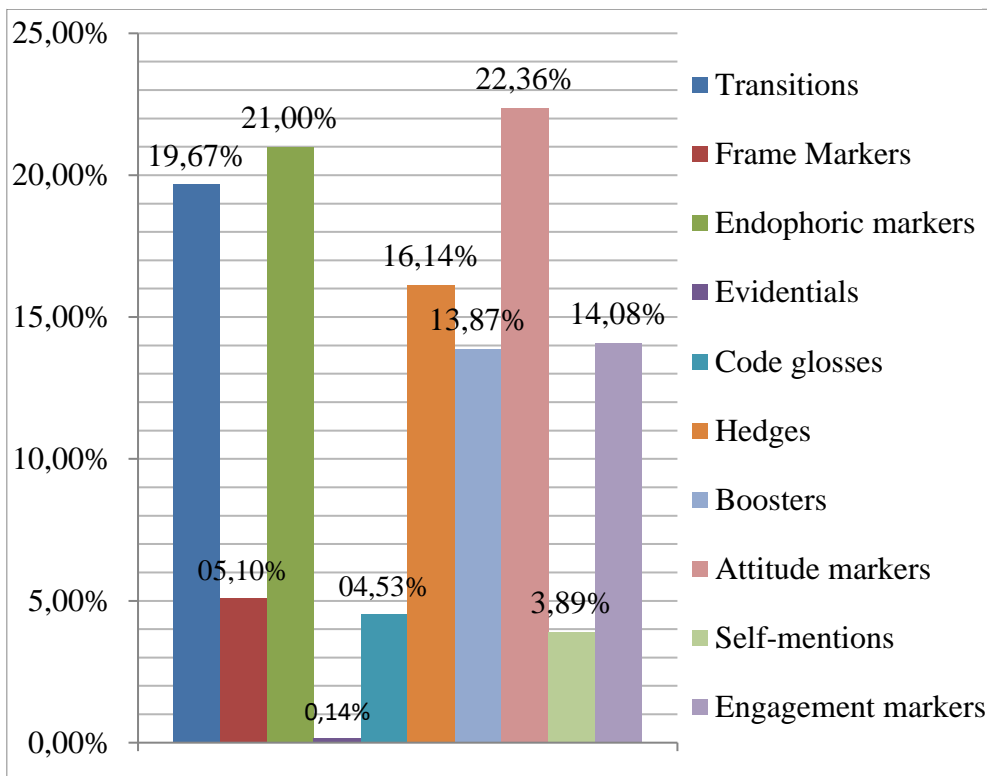
In our study, we categorized metadiscourse markers and extracted corresponding examples from the students' essays. Starting with the interactive category, the students employed 278 transitions, a significant number in comparison to the other markers. Transitions encompass functions like addition, contrast, and consequence. Numerous examples were extracted: *On the other hand, there are some people who think that women should stay home.* Regarding frame markers, the students used a variety of words and expressions to sequence text parts, clearly articulate the purpose behind writing, and signal shifts. For instance, *To sum up, the role of women is important in a community; she is an inseparable part of it.* As for endophoric markers, the students demonstrated a clear reluctancy, with only 03 examples found in the entire essays: *As it is mentioned before, women are not weak: they have the right to work.* Not only were endophoric markers rarely used, but the evidentials subcategory was also underutilized. Evidentials, where the students relied barely on external sources to back up their arguments, were the least utilized markers with merely 02 examples: *According to the statistics, 80% of women in Algeria have proper work.* Lastly, code glosses, linguistic resources used to restate propositional content, included an example like: *All the people lived in the same way, they were basically living by agriculture; in other words, they were just searching for food and surviving.*

Beyond interactive markers, interactional markers were also extensively employed. In fact, there were 228 occurrences of hedging in the

students' essays. The students tended to employ words that express uncertainty and avoid doubt. For example, *I think as men have the right to work, women have this right as well.* Contrary to hedges, boosters were used to signal certainty. In their essays, the students used 196 boosters to demonstrate certainty throughout their propositions. Boosters were marked in various ways: *Society never declines when the men and women work together.* In relation to attitude markers, they were used in 316 instances. They were implemented through the use of certain verbs, adjectives, or adverbs to evaluate a specific proposition. For example, *I agree with this point.* Engagement markers ranked fourth after hedges with 199 instances. These could be identified through the use of modal verbs such as *should, need to*; questions to involve the reader, etc. For example, *I think the most important reason is that a woman should work and have a job.* Lastly, 55 self-mentions were recorded in the students' essays, indicating a direct mention of their presence throughout the essays. For example, *I see that women can find work on the Net and stay at home if she is a mother.*

In addition to the various metadiscourse markers, it is necessary to relate them to their respective rhetorical appeals. As depicted in Table 2, we found that there was not a significant disparity between the three appeals. Although it included only two metadiscourse markers, the emotional appeal recorded the highest frequency with 515 (36.45%) occurrences. *Ethos* followed with 481 (34.04%) instances where the students relied on the use of evidentials, hedges, boosters, and self-mentions. Lastly, a total of 417 (29.51%) logical markers were utilized by the students in their argumentative essays.

Table 2. Frequency of the rhetorical appeals in the students' essays

Metadiscourse markers	Rhetorical appeals	N° of markers	Overall Frequency (%)
Transitions	*Logos*	417	29.51%
Frame markers			
Endophorics			
Code glosses			
Evidentials	*Ethos*	481	34.04%
Hedges			
Boosters			
Self-mentions			
Attitude markers	*Pathos*	515	36.45%
Engagement markers			

4.2 Interview Analysis

Question 1 is about "How do you find argumentative writing?". This question serves as a self-assessment of the students' proficiency in argumentative writing. It is noteworthy to mention that the students, who participated in the interviews, had a basic understanding of argumentative writing. Out of 22 students, 15 (68.18%) found it easy. 04 (18.18%)

acknowledged the task's difficulty, whereas only 02 (09.09%) considered writing argumentatively very easy. Interestingly, no-one found it very difficult; and 01 (04.55%) student skipped the question. Thus, the majority underscored the easiness of writing argumentative essays.

Regarding Question 2: "What can the writer use in an attempt to be more convincing?", a total of 37 responses were provided. 13 (35.13%) suggesting that the writer uses arguments to be more convincing. Furthermore, examples were mentioned in 10 (27.03%) responses, maintaining they were necessary tools of persuasion. Statistics, on the other hand, were stated in the students' answers 04 (10.81%) times. Evidence was repeated 03 times (08.11%). 02 other responses (05.41%) connected persuasion to the use of scientific information. However, other propositions were given with 01 (02.70%) occurrence each: points of views, language, quotes, historical background, and logical reasoning.

In addition to the previous question about tools of persuasion, Question 3 is "How can you describe an argument that should be used in argumentative writing?". The students were asked to provide their own description of arguments used in argumentative writing. 09 (21,43%) responses suggested that arguments needed to be strong. Additionally, 07 (16,67%) other responses described arguments as mainly convincing. In 06 (14,29%) responses, the students associated arguments with being real and concrete. Arguments were identified as clear and concise in 04 (09,52%) responses in the whole essays. Besides, arguments were described as logical, emotional, professional, and scientific each occurring once. However, there were 02 (02,38%) students who skipped this question. On the other hand, within the same question about describing arguments, the students provided varied answers: 02 (04,76%) responses described arguments as examples; another 02 (04,76%) responses identified arguments as a kind of evidence. Moreover, 01 (02,38%) response was provided in each description: arguments were synonymous with (details, a good structure, personal experiences, and a group of sentences). Yet, 02 (04,76%) students did not respond to this question.

Question 4 of the interview is a yes-no question: "In argumentative essay writing, can we use emotions to convince readers?" It aims to elicit responses on whether it is possible to use emotions in argumentative writing. Here, we obtained 21 responses in total that were almost evenly split. We can say that the results were almost equal: 10 (45.00%) students answered affirmatively, suggesting emotions could be used to persuade readers; while 11 (50.00%) students disagreed. 01 (04.55%) student chose not to respond to this question.

Question 5 is "Do you think there is any connection between the writer and reader?" If yes, what kind?". This question is twofold: first it seeks a yes-no response and second it requests further details in case the answer is yes. Yes-no answers were solicited to gauge the students' perceptions of the relationship between the writer and their audience.

Effectively, 16 (72.73%) students confirmed the existence of such a relationship, whereas 06 (27.27%) of them denied any existing connection between the two parties.

For the second part of the question, the students provided many details about the connection between the writer and reader. 03 (13,64%) responses suggested that some students thought that the utilization of ideas intended to change readers' minds was one way of activating that kind of relationship. Again, 03 (13,64%) responses of empathy and understanding were found to account for the writer-reader relationship. 03 (13,64%) other answers associated the act of sharing common ideas and experiences to establishing this relationship. Additionally 02 (09,09%) responses described the relationship as professional, whereas another 02 (09,09%) answers identified it as fundamentally beneficial. The way readers interpret propositions was also suggested in 02 (09,09%) instances. Moreover, 02 (09,09%) responses mentioned that the relationship was marked through a clear statement of one's point of view. Language, style, structure, adequate information and examples occurred 01 (04,55%) time each. 01 (04,55%) student chose not to answer this question

Concerning Question 6: "What can the writer use to guide the reader through the text?", the students gave a wide range of answers. First, 15 (28,85%) responses referred to text parts such as thesis statements, topic sentences, etc. as tools which, as some students maintained, were utilized with a view to guiding readers through texts. 06 (11,54%) responses were related to the use of a clear structure. Examples were also mentioned in this regard with 05 (09,62%) instances. According to some responses, arguments and reference to interesting subject matter occurred 04 (07,69%) times each. Vocabulary and transitions were each mentioned 03 (05,77%) times. With 02 (03,85%) instances in each guiding tool, we can cite: use of sufficient information, statistics, ordering, connectors, and style. Logic, on the other hand, was mentioned once (01,92%) along with realistic information that also occurred once (01,92%).

Last but not least, Question 7: "How can the writer involve the reader in the text?" which aims at uncovering the students' perceptions of how the writer can involve their readers in the text. A wide range of responses were provided: 08 (22,22%) responses suggested that the use of arguments was a key technique the writer needed in order to involve the reader in the text. Next, examples with 05 (13,89%) occurrences ranked just after arguments. Structure-related items like hooks and thesis statements came after with 04 (11,11%) occurrences. Similarly, the use of personal experiences occurred 04 (11,11%) times. Direct addressing of the reader was also mentioned in 03 (08,33%) instances. A number of other propositions were made, each occurring 01 (02,78%) time in the whole interviews; these included the use of statistics, questions, dialogs, emotions, common issues, words, proof, and important information. Yet, 04 (11,11%) students did not provide any answers to this question.

5. Discussion

According to the results, the interactional category was more prevalent in the students' argumentative essays than the interactive category. These results align with some previous studies on persuasive essay writing (Tan & Eng, 2014; Mahmood, Javaid, & Mahmood, 2017) which found the interactional category outnumbered the interactive one. Yet, Hyland (2010) noted that the interactive category was higher in postgraduate dissertations. Hence, we hypothesize that these differences stem from the uses associated with various writing genres, and that students are aware of how they involve their readers in writing.

Furthermore, the results showed that the students used a high number of attitude markers (22.36%) in their essays with a view to enhancing their persuasive appeal. However, this is incongruent with the findings of (Mahmood et al., 2017) who reported a lower frequency of this subcategory. This high frequency can be related to the main purpose of argumentation: the need to persuade through the incorporation of attitude markers.

Transitions ranked second with a percentage of (19.67%). The substantial usage of transitions aligns with the research findings of (Hyland, 2005; Mahmood et al., 2017). The high utilization of transitions stems from the students' concern to effectively organize textual elements.

Concerning hedges, they occurred with a frequency of (16.14%). The students were not reluctant to use markers that signal uncertainty and doubt. According to Ho and Li (2018), hedges can be sparingly utilized due to the time constraint, i.e., students do not have enough time to complete their writing assignment, so they resort to using colloquial expressions like *for me*, *in my opinion*, etc.

Conversely, engagement markers were also used with a frequency of (14.09%). Hyland (2005) found that hedges and transitions were the most prevailing devices followed by engagement markers. Similarly, Tan and Eng (2014) reported a high frequency of engagement markers.

Indeed, the difference between engagement markers (14.09%) and boosters (13.87%) is not significant; however, the difference between boosters and hedges (16.14%) is noticeable. In their research, Ho and Li (2018) found that the students used more boosters in their conclusions than in the body paragraphs, suggesting they wanted to be more assertive about their positions in the end. In the context of our study, we suggest that the use of hedges and boosters is closely contingent on the writer's stance.

In the students' essays, frame markers were used with a frequency of (04.53%). Frame markers were less used in the students' essays. This is consistent with the research findings of (Mahmood et al., 2017; Tan & Eng, 2014). Although the students used words like *firstly*, *secondly*, *thirdly*, they were low in contrast to the other markers. Hyland (2005) suggests that necessity to use frame markers decreases when producing shorter pieces of writing.

In our research context, code glosses were only deployed at a rate of

(04.53%). These markers were not often used by the students, a result that aligns with the findings of (Mahmood et al., 2017). Ho and Li (2018) explain that students tend to use words and expressions to reformulate and exemplify less frequently because they see no need to elaborate on content for their proficient examiners.

Self-mentions were considered among the least used markers. We found they were utilized only (03.89%). Hyland (2002) asserts that there are some reasons why self-mention is avoided in writing: "recommendations from style manuals, uncertainties about disciplinary conventions, culturally shaped epistemologies, cultures specific views of authority, conflicting teacher advice, or personal preferences" (p. 1107).

The lowest frequencies pertained to endophoric markers with merely 03 (00.21%) markers, and evidentials with 02 (00.14%) instances. Although endophorics are a principal feature of science writing (Hyland 2005), no resource was used by the students in Mahmood et al. (2017). Concerning evidentials, they were the least used in Tan and Eng (2014).To justify their actual implementation in the present study, Ho and Li (2018) argue that there is no need to guide the audience through essays which are usually not lengthy. In the same fashion, students do not have access to external sources of information when composing argumentative essays.

Metadiscourse markers facilitate persuasion through the rhetorical appeals: *logos*, *ethos*, and *pathos*. We discussed them here as part of explaining their different uses in the students' argumentative essays. To begin with, *logos* was maintained through the use of transitions, frame markers, endophorics, and code glosses. Appeal to logic was the least used with a frequency of 29.51%, yet no noticeable difference was perceived among the remaining appeals.

According to Hyland (2005), transitions are logical relationships that signal addition, comparison, sequence, etc., contributing to the overall achievement of persuasion. Hyland (2010) argues that these markers are paramount in helping readers understand how propositions are interconnected. Below is an example where one student contrasted two opposing views: *While those women are helping the country to progress, there is a category of people which claims that women have taken their positions and that their place is home.* Through the use of *while,* the student is logically organizing their content. Next, pertinent to *logos* is the use of frame markers. Hyland (2005) posits that *"logos* concerns the speech itself, its arrangement, length, complexity, types of evidence and arguments and so on" (p.65). For instance, announcing goals in a text can demonstrate the logic of the process: *In this essay, we will explore together the values and responsibilities of women and vice versa.* Also*,* Hyland (1999) contends that endophorics are used to present propositional content in a coherent way. We extracted one example to illustrate: *As it is mentioned before, women are not weak: they have the right to work.* Here the student tries to guide their readers to other parts of the text. Besides, code glosses are markers used to

explain what the writer thinks is unfamiliar for the readers to understand (Hyland, 2005). Emphasis is put on giving more details to present propositions in a clear and logical way. Here is an example: *It means that when a woman works she can help, whether she is a doctor, teacher, etc., she has a very important role to play.*

On the other hand, *ethos* ranked second. According to Lauer (2004), *ethos* is persuasion represented in texts via the speaker's character and virtue. *Ethos* is performed through the use of evidentials, hedges, boosters, and self-mentions. Evidentials did occur only twice; however, it is important to focus on their utility. In this example the student used an informal citation to support their argument: *My father said, "I will never give you money again because you waste it."*. Next, hedges are utilized to make suppositional interpretations, entailing uncertainty in judgment instead of reliability of logical reasoning (Hyland, 2018). One of the students wrote the following sentence: *For me, I think that as men have the right to work, women have this right as well*; in effect, credibility is marked twice through uncertainty: stating that it was just a point of view *for me*, and using *think* to demonstrate honesty. Boosters help to emanate credibility by means of authority, decisiveness, and conviction; for instance, *It is obviously seen in the number of women who take important posts in all domains*, the student used the adverb *obviously* to demonstrate certainty and confidence. Another credible appeal is the use of self-mentions. According to (Hyland, 2001), self-mention strengthens credibility and writers' roles in research. It also assists them in gaining approval for their claims.

Pathos is prevalent in the students' essays. It is represented through the incorporation of both attitude markers and engagement markers. *Pathos* makes the writer consider the text through their readers' eyes by addressing their situation, showing empathy with their values and goals, and explicitly eliciting their response (Hyland, 2005). In the following example, one student employed the verb *support* to clearly express their attitude and invite the audience to react to it: *I support the idea of women going out to work for many reasons*. Finishing with engagement markers, this example can illustrate how engagement is deployed: *As we know, work is her arm that she uses to face the difficulties of this life.* By using *As we know*, the student's intention is to engage their audience in the text.

Concerning the interview responses, we discussed them in the order of the questions. First of all, in response to Question 1 which is on the difficulty level of argumentative essay writing, (68.18%) of the students acknowledged that this type of discourse was easy for them to undertake. We propose that this response is grounded on the fact that the students received only basic notions in argumentation, inducing them to consider it as relatively easy.

Question 2, which is about students' perceptions of tools of persuasion, elicited a number of relevant, irrelevant, and vague responses in the context of metadiscourse markers. Relevant: arguments, examples,

statistics, scientific information, quotes, historical background, and logical reasoning (86.48%); irrelevant: points of view (02.70%); and vague responses: evidence and language (10.81%). In short, the students are cognizant of what to use as tools of persuasion. They have prior knowledge that claims are not sufficient to persuade an audience, and that other elements are needed.

In relation to Question 3 about students' description of arguments, we collected different relevant, irrelevant, and vague answers. Relevant responses: strong, convincing, real, clear and concise, logical, emotional, professional, scientific, structure, and personal experiences (76.19%); irrelevant responses: examples, thesis statement, general background (09.52%); and vague responses: evidence, details, group of sentences (09.52%). We also had some unanswered questions: (04.76%). Although some of the students mentioned the use of logic and emotion in their answers, they did not explicitly state *ethos*. This may be due to their inexperience with this notion before.

In response to Question 4 pertaining to whether it is possible to use emotions in argumentative writing, results were nearly evenly split: with yes (45.45%); no (50.50%); and no answer (04.55%). The inconsistency related to the provided responses reveals some inexperience with whether to use emotion in argumentative writing, and how to use it properly.

In response to Question 5 on the writer-reader connection, the majority answered with yes (72.73%), while a minority said no (27.27%). This reveals that the students firmly believe such a relationship exists. For the second part of the question, we elicited explanations from the students who answered yes. The relevant responses which represent (86.38%) of the total include: mind-changing ideas, empathy and understanding, sharing common ideas/ experiences, professional relationship, beneficial relationship, interpretation, clear statement of one's opinion, adequate information/examples. We can infer that the students have general ideas about the writer-reader connection, likely stemming from their exposure to various types of texts they have studied before.

Concerning Question 6 which is "What can the writer use to guide the reader through the text?", we collected responses with a frequency of (30.78%) including examples, transitions, statistics, ordering, connectors, logic, and realistic information. However, this frequency is low, and the majority of the responses were considered as irrelevant. In Question 7: "How can the writer involve the reader in the text?", some relevant answers were yielded such as personal experiences, direct addressing of the reader, questions, dialogs, emotions, and common issues, with a frequency of (30.56%). We can say that in these last questions, only few answers were provided. The students seem to find it hard to differentiate between interactive and interactional markers, that is to say, how to guide readers, and involve them in texts.

6. Recommendations

Based on the research findings, some recommendations are suggested. Students should be trained to make a balance in their use of the two metadiscourse categories, with focus on improving the interactive category. For instance, writing instructors can design in-class writing tasks that show the importance of using interactive strategies; one example would include it and the second one will not. Students will then be asked to compare both and decide which one would have more effect and impact on the readers. After that, students will be asked to revise the example by including interactive strategies for practice.

Also, writing instructors need to reconsider metadiscourse taxonomies when taught in essay writing since some subcategories occurred rarely. Focus should be placed on the markers that were seldom used such as endophoric markers and the objective of using them. Additionally, more in-class essay writing tasks should be designed with the aim of exploring the relationship between metadiscourse markers and Aristotle's appeals: logos, *ethos*, and *pathos*, and how they contribute to enhancing the persuasive effect of the arguments used. Finally, writing instructors can also use reflection as an assignment to make students reflect on their use of metadiscourse markers and how they can improve their writing to be more coherent, engaging, and persuasive.

7. CONCLUSION

The findings of this study highlight the students' ability to effectively use metadiscourse markers and rhetorical appeals in their argumentative essays. The predominant use of interactional markers suggests that students are keen to engage the reader in their essays. The frequent use of attitude markers, transitions, and hedges indicates a strong awareness of the need to express attitudes, manage information flow, and propose hypothetical interpretations. However, the low usage of endophoric markers and evidentials suggests potential areas for further instruction and practice. Future research could explore the impact of explicit teaching of these less frequently used markers on the quality of students' argumentative writing. This study contributes to our understanding of how metadiscourse markers and Aristotle's appeals are used in argumentative essays by non-native English speakers, providing valuable insights for English language teaching and learning.

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