

# A PRAGMATIC APPROACH TO THE RHETORICAL ANALYSIS AND THE METADISOURSE MARKERS OF RESEARCH ARTICLE ABSTRACTS IN THE FIELD OF APPLIED LINGUISTICS

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## **Abstract**

Using Hyland's (2000) model as a research tool and drawing on Hyland's (2005a) model of metadiscourse, this article presents a pragmatic two-level rhetorical analysis of the constituent moves within research article abstracts. It specifically zeroes in on the identification and mapping of the most frequently used metadiscourse markers signifying these moves. The findings highlight that Libyan authors employ interactive markers more often than interactional ones. Both quantitative and qualitative analysis of metadiscourse indicate that transitions, endophoric markers, and frame markers emerge as the dominant interactive categories. In contrast, interactional metadiscourse is predominantly represented by attitude markers, hedges, and boosters. Based on the findings, Move 1 features the highest frequency of metadiscourse markers, followed by Move 2. Notably, transitions stand out as the most prevalent category across all moves. This study carries pedagogical implications for academic writing practices among Libyan academic writers and students alike. Moreover, it enhances the existing body of research on the genre of research articles.

## **Keywords**

rhetorical analysis, metadiscourse markers, research article, academic writers, pragmatic approach

## **1 Introduction**

In academic writing, research article (RA) abstracts, as a specific sub-genre of RAs, have become an indispensable component of journal articles (Swales & Feak 2004). Abstracts are required for nearly all academic publications, including research articles, master's theses, doctoral dissertations, and undergraduate theses, regardless of the language in which they are written. Even though it is usually written last, an abstract serves as the initial point of engagement for readers pursuing scholarly research in their respective domains. It functions as a 'promotional genre' (Dahl 2009), showcasing the research conducted and thus enticing readers to peruse the full article (Hyland 2000, Dahl 2009). Given their promotional essence, research abstracts carry significant rhetorical importance; authors should utilize their constrained space to underscore the paper's central arguments and demonstrate their significance (Jiang & Hyland 2017).

In the face of an ever-expanding volume of research literature, readers depend on abstracts to discern relevant readings (Jiang & Hyland 2023). A meticulously crafted abstract is comparable to a traffic sign on the edge of a bustling highway: easily recognizable even amidst rush hour chaos, and straightforward (Sanganyado 2019). Hence, it should be “accurate, non-evaluative, concise, coherent, and reliable” (American Psychological Association 2001: 26). Notwithstanding its succinctness, academic authors must observe conventions, which encompass distinct rhetorical strategies and linguistic characteristics (e.g. metadiscourse) that acknowledge the audience and their prior knowledge of the subject (Hyland 2004). These conventions are considered the fundamental structures for organizing discourse (Biber et al. 2007: 53). Nevertheless, constructing RA abstracts remains daunting, especially for non-native English speakers (NNS), primarily due to their unfamiliarity with the genre-specific features of abstracts (Mauranen 2007, Amnuai 2019).

Several studies have focused on the genre-specific dimensions of metadiscourse and its recurring patterns (e.g. Gillaerts & Van de Velde 2010, Akbas 2014, Benraiss 2023, Boginskaya 2023). However, these endeavors largely address the internal dynamics of metadiscourse. A holistic comprehension of metadiscourse necessitates examining its varied roles within the intrinsic rhetorical and contextual patterns of genres (Hyland 2013). This article underscores the necessity for an in-depth exploration of the interplay between rhetorical strategies and metadiscourse in different RA sections, particularly abstracts. Such an investigation can elucidate writers’ inclinations concerning micro (linguistic) and macro (rhetorical) structures, for instance, in soft discipline RA abstracts. Despite the pivotal relationship between rhetorical moves and metadiscourse in molding discourse, few studies have explored their nexus across disciplines and RA sections (Del Saz-Rubio 2011, Khedri & Kritsis 2018, Kashiha & Marandi 2019, Ashofteh et al. 2020).

This study embarks on a threefold research objective. Initially, it assesses the macro-organizational patterns of 50 RA abstracts authored by Libyan scholars in applied linguistics. Subsequently, it investigates the metadiscourse markers in these abstracts and their functions in terms of micro-organizational patterns. Finally, it determines the primary rhetorical moves of RA abstracts and the prevalent metadiscourse markers that indicate these moves. The research employs a pragmatic methodology, taking into account the rhetorical context in which metadiscoursal categories function and the communicative goals of the writers.

It is essential to acknowledge that skilful use of metadiscourse is crucial for Libyan authors to attain recognition in the academic community and secure

publications in reputable journals. This holds particular importance since the Libyan Ministry of Education recently set such standards for academic promotions. This study is significant as it might uncover the most frequently used metadiscoursal elements in various RA abstract moves within applied linguistics. It also evaluates whether the academic writing of Libyan authors in local journals of Libyan public universities (LJLP) aligns with standards set by top-tier journals. Overlooking a community's rhetorical norms might result in manuscripts of diminished quality, leading to potential misinterpretation of ideas (Khedri & Basirat 2022). Consequently, this investigation can refine the conveyance of information in soft discipline abstract sections, underscoring the significance of metadiscourse markers in aiding authors to produce contextually rich texts and navigate readers through the unique strategies of this section.

In conclusion, this research is guided by the subsequent inquiries, addressing the specified gaps:

1. To what degree is metadiscourse featured in the RA abstracts of applied linguistics by Libyan authors?
2. In what manner do Libyan scholars in applied linguistics utilize metadiscourse to fulfill the rhetorical objectives of RA abstract strategies?

## **2 Theoretical background**

### **2.1 Move analysis**

Move analysis was first proposed by Swales (1990) as a technique to investigate the rhetorical structures of diverse genres, including research articles and theses. Over the years, move analysis has garnered significant interest (Swales 1990, Bhatia 1993). Consequently, it is perceived as a suitable methodology for uncovering text structures in academic writings across a variety of disciplines, inclusive of research paper abstracts.

In Swales' (1990) framework, a genre can be deconstructed into several move structures. A move is described as "a unit of discourse which may be smaller than an utterance" (Richard & Schmidt 2002: 344). Swales (2004: 288) further elaborated that a move represents "a discoursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse", aimed at fulfilling a significant communicative objective. Additionally, it is perceived as a stage within a genre with a distinct, subordinate communicative goal that aids the primary communicative intent of the genre (Dos Santos 1996). The extent of a move can vary from a singular finite clause to several paragraphs, given its functional nature. Moves can encompass steps (Swales 1990, Bhatia 1993), which outline diverse tactics for actualizing a move. Dudley-Evans and St John

(1998: 89) define a step as “a lower-level text unit than the move that yields a detailed perspective on the options open to the writer in setting out the moves”. Every step furthers the overarching objective of a move and, in tandem, each move advances the principal communicative aim of the genre.

Various studies have employed this approach within the academic register to discern its construction. A research article (RA) abstract encapsulates “a well-defined and mutually acknowledged communicative purpose” (Bhatia 1993: 77), making it a fitting subject for analysis. A myriad of research has probed the rhetorical moves within abstracts (e.g. Bhatia 1993, Hyland 2000, Samraj 2005, Pho 2008, Golebiowski 2009, Suntara & Usaha 2013, Amnuai 2019). These investigations offer invaluable insights into the core of academic writing, guiding academic authors across multiple disciplines.

## **2.2 Hyland’s model of metadiscourse**

Metadiscourse is a pivotal element in the formulation and presentation of ideas and arguments within writing. It is of paramount importance in academic discourse, enabling writers to fulfill two primary functions in their compositions. First, it aids in organizing the material, guiding readers, and linking ideational components, ensuring that the context is clear and logically structured for the readers. Second, it expresses the writer’s perspectives and evaluations of the ideational content (Hyland 2004). This underscores that writers not only contribute facts and knowledge to the literature but also consider their readership and its foundational understanding of the topic (Hyland *ibid.*). Metadiscourse is characterized as an expansive category (Hyland 2005a) subject to multifaceted analysis.

Metadiscourse serves as a central pragmatic construct, illuminating how writers aim to influence readers’ comprehension of the text and their stance towards its content and readership (Hyland 1998b). Crucially, metadiscourse should be understood as “a rhetorical and pragmatic construct” (Hyland 2005a: 25), rather than merely “an independent stylistic device” (Hyland 1998b: 438). The focal point should not solely be ‘what is the purpose of this metadiscourse marker?’, but more pertinently, “what is this item doing here at this point in the text?” (Hyland 2005a: 25). The subsequent section elucidates the pragmatic roles of each metadiscourse category.

Concerning interactive metadiscourse, transition markers aid readers in discerning the pragmatic connections between stages of an argument (Hyland 2005a). Frame markers pragmatically structure the text either locally or more broadly, reducing the reader’s cognitive load by delineating textual patterns and boundaries (Aguilar 2008). Code glosses enhance communication clarity

by pinpointing “implicated premises and conclusions” (Murillo 2004: 2066). Endophoric markers pragmatically curtail repetitions (Abdi et al. 2010), directing readers toward a specific interpretation of the unfolding discourse (Hyland 2005a). Appropriate use of evidential markers can pre-empt potential objections (Hu & Wang 2014) and “strengthen readers’ assumptions of adequate documentation” (White 2011: 3347).

In terms of interactional metadiscourse, boosters serve as pragmatic instruments to amplify certainty (Peacock 2006) and are viewed as positive politeness strategies (Myers 1989), as they “show solidarity with the discourse community by exhibiting responses that assume shared knowledge and desires” (Martín Martín 2008: 139). Conversely, hedges function as rhetorical devices for courtesy, offering readers the latitude to dissent (Holmes 1982) while mitigating potential conflicts in writer-audience interactions. Attitude markers pragmatically convey authors’ affective stances (Abdollahzadeh 2011). Self-mentions are of significant pragmatic value in academic discourse, shaping not only the text but also the writer’s rhetorical persona (Hyland 2002: 1110). Engagements acknowledge the readers’ presence in a composition (Hyland & Jiang 2016: 30). In summary, interactive markers facilitate readers in traversing the text, whereas interactional markers aim to captivate and involve the reader in the discourse.

### 3 Methodology

This section provides a description of the methodology used in collecting and analyzing the data, and of the analytical frameworks utilized to suit the purpose of the study.

#### 3.1 The corpus

The corpus of this study comprises 50 RA abstracts written by non-native speakers (Academic Libyan Writers) of English, totaling 9,123 words. A mixed-method research approach was adopted, incorporating frequency and functional analyses of metadiscourse to justify the data size. Concerning article selection, a stratified random sampling method was employed. The criteria listed below ensured that the selected articles exhibited similar features (Connor 2004):

- a) All selected RAs belonged to the discipline of applied linguistics (AL).
- b) All chosen RAs were full-length research articles conforming to Swales’ (1990) conventionally accepted format of Introduction, Method, Results, and Discussion.
- c) Every author of the selected articles was Libyan. Their nationalities were verified to ensure all were non-native speakers of English.
- d) All chosen RAs were published between 2011 and 2020.

The articles were sourced from local journals in the field of applied linguistics, published by Libyan public universities. These journals include *The Journal of the Faculty of Languages* (Tripoli University Press), *The Journal of Faculty of Arts* (Misurata University Press), *The Journal of Gharyan University* (Gharyan University Press), *The Journal of English Language and Translation Studies* (Sebha University Press), and *The Journal of Azzaytuna University* (Azzaytuna University Press). These are research-focused, high-quality journals endorsed by the Ministry of Higher Education in Libya. It is pertinent to note that this study emphasizes national journals where authors, editors, and reviewers are exclusively Libyan and non-native English speakers. This emphasis facilitates exploration into the construction of research article abstracts within the Libyan academic community. Given the diverse strategies across academic journals globally, honing in on national journals from a specific community offers insights into the cultural norms of Libyan academics in applied linguistics. This strategic choice enhances the study’s outcome, as the findings reveal notable distinctions between Libyan non-native English speakers and native speakers.

### 3.2 Analytical frameworks

#### 3.2.1 Hyland’s model of move structure

As depicted in Table 1, Hyland’s (2000) model comprises five moves, in contrast to Bhatia’s (1993) four-move classification that encompasses introducing purpose, describing methodology, summarizing results, and presenting a conclusion. Hyland’s model is deemed more suitable as it distinguishes between introduction and purpose, offering a lucid comprehension of the rhetorical move structures in the selected abstracts.

Moves	Function
1. <b>Introduction</b>	Establishes context of the paper and motivates the research or discussion.
2. <b>Purpose</b>	Indicates purpose, thesis or hypothesis, outlines the intention behind the paper.
3. <b>Method</b>	Provides information on design, procedures, assumptions, approach, data, etc.
4. <b>Product</b>	States main findings or results, the argument, or what was accomplished.
5. <b>Conclusion</b>	Interprets or extends results beyond scope of paper, draws inferences, points to applications or wider implications.

**Table 1: Framework for abstract analysis (adopted from Hyland 2000: 67)**

### 3.2.2 Hyland’s model of metadiscourse

Hyland’s (2005a) framework, presented in Table 2, is widely recognized and employed within the academic realm. Due to its prominence, it was chosen for the analysis of the collected RA abstracts for this paper. The model outlines two principal categories termed as interactive and interactional.

Category	Function	Example
Interactive resources	Help to guide the reader through the text	Resources
Transitions	Express relations between main clauses	in addition; but; and thus
Frame markers	To 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
<b>Interactional resources</b>	<b>Involve the reader in the text</b>	<b>Resources</b>
Hedges	Withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	Emphasize certainty or close dialogue	in fact; definitely; it is clear that
Attitude markers	Express writer’s attitude to proposition	unfortunately; I agree; surprisingly
Self-mentions	Explicit references to author(s)	I; we; me; our
Engagement markers	Explicitly build relationship with reader	consider; note; you can see that

**Table 2: Hyland’s framework of metadiscourse (Hyland 2005a: 49)**

### 3.3 Method

A mixed-method design was employed in the current research. The selected abstracts were analyzed qualitatively to identify metadiscourse markers and rhetorical moves. The quantitative approach was utilized to determine the extent of metadiscourse markers used in the chosen abstracts. The collected data were analyzed in three phases: first, we organized the texts in a Word file and created an electronic corpus that included metadiscourse markers using *WordSmith Tools*. Subsequently, a list of metadiscourse items was compiled from Hyland (2005a) and other sources (Hu & Cao 2011, Khedri et al. 2013). Each specific metadiscourse item was then identified based on its functions and meanings. In the second phase, Hyland’s model (2000) was used to identify the rhetorical

moves in the selected abstracts, adopting a top-down coding approach based on meaning. In instances where two or more moves appeared in a sentence, the function of the move was determined based on the most dominant move, following Del Saz-Rubio (2011). As the primary goal of move analysis in this study was to understand how metadiscourse markers functioned within each move, the analysis was confined to the organization of moves. In the third phase, metadiscourse markers were analyzed within each move to discern their enactment within each move structure.

Inter-coder agreement was employed to enhance text coding reliability. A second researcher coded 50 per cent of the chosen abstracts, and inter-reliability was assessed using Cohen's Kappa. The result of Cohen's Kappa was 90, indicating an almost perfect agreement. Nevertheless, disagreements were discussed by the researchers until a consensus was reached.

## 4 Results and discussion

### 4.1 Analysis of metadiscourse

Of the 9,123 words, only 1,156 were identified as metadiscourse markers. As shown in Figure 1 below, the analysis revealed that 33 per cent (378 cases) functioned as interactional markers and 67 per cent (778 cases) as interactive markers. Libyan writers utilized interactive markers more frequently than interactional markers. A potential explanation for this trend might be attributed to Libyan writers aiming to clarify their perspectives and structure the text cohesively for readers (Hyland 2005a). Among these categories, transitions, attitude markers, hedges, boosters, and frame markers emerged as the most commonly employed markers in the current study. However, the count of metadiscourse markers is less than anticipated. Some categories of metadiscourse, such as evidentials, self-mentions, and engagements, were seldom observed. This finding diverges from prior studies, as described below. Subsequent sections present and discuss the results of each category.

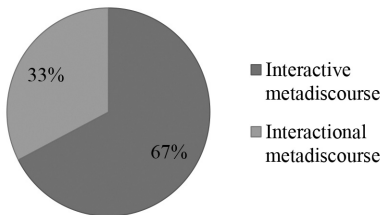


Figure 1: Metadiscourse frequency



### 4.1.1 Interactive markers

The overall results of this study demonstrated some variations in the frequency of interactive metadiscourse, as shown in Table 3.

Interactive markers	Frequency
Transitions	489
Frame markers	114
Endophoric	85
Code glosses	66
Evidential markers	24

**Table 3: Frequency of interactive markers**

**Transitions** “are mainly conjunctions and adverbial phrases which help readers interpret pragmatic connections between steps in an argument” (Hyland 2005a: 61). Out of the 778 words functioning as interactive metadiscourse, 489 tokens were identified as transition markers. This extensive use of transitions could be attributed to their role in facilitating cognitive relations between sentences. Transitions are commonplace in academic writing in general (Hyland & Jiang 2020), especially in applied linguistics abstracts, as underscored in previous studies (Gillaerts & Van de Velde 2010, Khedri et al. 2013, Al-Shujairi et al. 2016). Qualitative analysis showed that transitions in the selected abstracts served various functions. Libyan writers used them to: (1) provide specific details about the topic under discussion (Example 1), (2) highlight gaps in the literature (Example 2), (3) introduce their work (Example 3) and (4) present crucial findings (Example 4).

- (1) *Creative writing is a wide range of literature and it deals **not only** with language **but also** with the wide imagination of writers.*
- (2) *In the EFL contexts, **while** much research is conducted towards investigating the problems that students face in writing and their writing strategies, studies on how EFL writing teacher teach and adopt the writing approaches to their students’ needs and levels are few.*
- (3) ***Therefore** this paper attempts to investigate these advantages of ...*
- (4) ***Moreover**, the majority of teachers agreed the usage of (L1) inside the class for specific purpose ...*

**Frame markers** reduce the reader’s effort by explicitly signaling “text boundaries of schematic text structure” (Hyland 2005a: 51). They were the second most prevalent category (114 instances) in the current study, aligning

with findings from studies like Al-Shujairi et al. (2016) and Khedri et al. (2013). Functional analysis discerned three discursive uses of frame markers: (1) ‘sequencers’ structure the discourse sequentially (Example 5), (2) ‘announcers’ indicate discursive aims (Example 6), and (3) ‘stage labels’ mark stages of textual development (Example 7). A significant difference in the frequency of these functions was noted. Markers announcing the study’s purpose were notably prevalent (104 instances), while only one instance of stage labeling was found in the abstracts penned by Libyan authors. This mirrors findings from Hyland and Jiang (2020: 18), who stated that “the expression of purpose can be a powerful tool in a writer’s rhetorical repertoire”. Closer scrutiny revealed that, when announcing their studies’ goals, Libyan writers frequently used verbs such as *investigate* (19 times), *aim* (17 times), *examine* (13 times), and *discuss* (9 times).

- (5) *The study **aims** to investigate and analyze the speaking problems that Libyan university students face, and **then** identify the reasons for these problems from the perspective of teachers and students.*
- (6) *The **focus** will be on the first year university students at the faculty of Arts and science, English Language Department in Al Kufra.*
- (7) *These problems **in brief** are ...*

**Endophoric markers**, also known as ‘text references’ (Bunton 1999), help readers grasp the author’s context and quickly access related details dispersed throughout the text (Hyland 2005a). They are the third most common markers in the current study’s interactive metadiscourse (85 instances), underscoring Hyland’s (2005a) claim about their prevalence in soft disciplines. Similarly, Khedri et al. (2013) highlighted their widespread use in RA abstracts within applied linguistics.

Endophoric markers encompass both linear and nonlinear reference markers (Bunton 1999, Mauranen 1993). Linear references, like previews, reviews, and overviews, clarify writing (Mauranen 1993). In contrast, nonlinear references point to supplementary content such as figures or tables. This corpus lacked previews, reviews, and other linear references, possibly due to the nature of abstracts. Only overview markers were found, used to: (1) introduce or describe the study’s purpose (Example 8), (2) highlight the study’s significance (Example 9), and (3) present research findings (Example 10). Such markers (e.g. *this study*) might reflect the abstracts’ inherent need to tie the presented research to the present moment. Nonlinear references were almost absent, with a singular exception (Example 11).

- (8) *This work importantly endeavours to shed light on the interface between educational linguistics and applied linguistics ...*
- (9) *So, this paper showcases and opens new avenues for the sub-discipline "Educational Linguistics" and draw educationalists attention to the interpretation and implementation of such a topic.*
- (10) *The research results revealed that there were not considerable differences between ...*
- (11) *The answers have been transferred into statistics **presented in tables** showing the teachers' responses.*

**Code glosses** serve as markers to elucidate the author's propositions and arguments through further description and clarification, thereby making ideas more reader-friendly (Hyland 2005a). In this study, code glosses ranked fourth in frequency among interactive metadiscourse elements, with 66 instances. This aligns with the findings of Khedri et al. (2013) that highlight the prevalence of code glosses in research article (RA) abstracts within applied linguistics. Examining the discursive functions of code glosses in this corpus reveals two primary roles: (1) 'reformulators' rephrase prior propositions to provide enhanced clarity. These are often signaled using punctuation markers such as commas and parentheses (Example 12), or through expressions like *this means* and *that is to say* (Example 13). (2) 'Exemplifiers' amplify prior discourse by offering examples. These are typically introduced with phrases like *for instance*, *for example*, *namely*, and *including* (Example 14). A detailed qualitative analysis indicates a discernible preference for reformulators, which appeared 45 times, over exemplifiers, which were found in 21 instances.

- (12) *The findings revealed some leading causes to reticence in the classroom; **i.e.**, fear of making mistakes, lack of confidence, shyness, low English proficiency ...*
- (13) *This period starts at age of two years and extends to a period when the brain reaches complete lateralization. **That is to say** a right hemisphere and a left hemisphere ...*
- (14) *The participants also demonstrated some needs which can be used as strategies by teachers to help reduce reticence; **such as**, teacher encouragement, appropriate teaching methodology ...*

**Evidential markers** cite the works of other researchers to establish a credible foundation for research (Hyland 2005a). In this study, they were minimally

represented (24 instances). Given that citation is a fundamental persuasion tool in academic writing (Hyland 2010), it is significant that 45 out of the abstracts analyzed lacked any citations. This suggests that Libyan authors often assert their claims without justifying them through external sources (Example 15). Additionally, they sometimes introduce research problems without indicating a gap through citations (Example 16).

Upon closer inspection, two citation forms emerged: integral and non-integral (Swales 1990). The former cites the author in the main text (Example 17), and the latter within parentheses (Example 18). The latter was particularly rare (2 instances). Functionally, citations were used to highlight analytical frameworks (Example 19) or pinpoint literature gaps (Example 20).

- (15) *Reading skill is not practiced by Libyan students even in their first language. Unfortunately, Libya is a culture that does not encourage, support, facilitate and provide for reading.*
- (16) *In the EFL contexts, while much research is conducted towards investigating the problems that students face in writing and their writing strategies, studies on how EFL writing teacher teach and adopt the writing approaches to their students' needs and levels are few and far between.*
- (17) ***Cutrim-Schmid** (2008) discussed ...*
- (18) *Technology is a new initiative in Libyan education (**Hamdy, 2007**).*
- (19) *It was conducted using an interruptive epistemology (Cohen, et al 2007) and grounded theory methodology (**Denscombe, 2007**).*
- (20) *Although considerable research related to the use and benefits of interactive whiteboards (IWBs) in teaching and learning is available (**Smart Technologies Inc, 2006**), there are few empirical studies that consider ...*

#### 4.1.2 Interactional metadiscourse

The study revealed variations in the frequency of interactional metadiscourse categories, as shown in Table 5. Libyan writers commonly employed attitude markers, hedges, and boosters in their abstracts, consistent with previous research (Hyland 2005b, Gillaerts & Van de Velde 2010). These markers enable authors to engage readers by modulating their claims (Gillaerts & Van de Velde 2010).

Interactional markers	Frequency
Attitude markers	165
Hedges	110
Boosters	70
Self-mentions	29
Engagement markers	4

**Table 4: Frequency of interactional markers**

**Attitude markers** convey authors' sentiments about a topic rather than a commitment to its veracity (Hyland 2005a). Of the 378 words identified as interactional metadiscourse, 165 were attitude markers. Their prevalent use suggests they function as a persuasive tool, reflecting the author's personal sentiments (Dafouz-Milne 2008). Libyan linguists likely value these markers for their promotional function (Hyland 2004). In line with Hyland's observation (2005a), they are more frequent in soft disciplines. Their primary use was to underscore the importance of the subject (Example 21) and findings (Example 22).

- (21) *There are some **important** elements that will be discussed throughout this study and the most elements of all is for Libyan EFL teachers and students to understand that there is a **significant** relationship between what the learner writes and what he/she reads which is called creative reading.*
- (22) *It is concluded that learner-produced learning materials can be a **successful** and an **effective** tool to promote ...*

**Hedges** are defined by Lakoff (1973) as terms that introduce ambiguity. Hedges ranked second in frequency among interactional markers, with 110 occurrences. This aligns with findings from prior studies (Gillaerts & Van de Velde 2010, Al-Shujairi et al. 2016) and indicates Libyan authors' tendency to convey uncertainty, possibly to be less confrontational (Martín Martín 2008).

Functionally, hedges were used to (1) make general assumptions about the investigated topic (Example 23), and (2) show uncertainty when presenting findings (Example 24), to create a 'discursive space' where the audience may contest their interpretations (Hyland 2005b). The study also found a preference for modal auxiliaries in these abstracts, with 60 out of 127 tokens being modals.

- (23) *This article discusses some theoretical ideas that **might** help offer guidance to teachers of foreign language.*
- (24) *The paper **suggests** that if learners' needs and expectations are known and considered in the pre-planning stages of lessons, any language teaching model **may** be favourable for teachers.*

**Boosters** are words used to “close down alternatives” (Hyland 2005a: 52). They demonstrate strong conviction and confidence in the authors’ claims (Hyland 1998a). They were the third most frequent, with 70 instances. A qualitative analysis showed that they were primarily used to highlight widely accepted facts (Example 25) and to present results definitively (Example 26).

- (25) *The field of applied linguistics particularly the field of language teaching as a foreign language has **always** left the chance open to scientific and educational research.*
- (26) *... only by overcoming the difficulties mentioned above and by establishing more favorable conditions for the implementation of CLT can students **truly** benefit from CLT in their English classrooms.*

**Self-mentions**, by employing personal and possessive pronouns, highlight the author’s involvement (Hyland 2005a). However, they were infrequent, with only 29 occurrences, possibly due to cultural preferences (Hyland 2001, 2005b) or a desire for objectivity (Langacker 1990), because using first person pronouns explicitly (Example 27) may lead to subjectivity towards the topic being discussed.

- (27) *I argue that CLT has not received widespread enthusiasm, has failed to make the expected impact on ELT ...*

**Engagement markers** play a pivotal role in directly addressing the audience, ensuring they remain attentive and feel included in the discourse (Example 28). Despite their recognized significance in enriching academic writing (Hyland 2001, 2005a), their use has surprisingly diminished, with a mere four instances noted in this study. Cultural factors might underpin this limited use (Hyland 2001). Furthermore, Libyan authors might be wary of employing them, fearing they might impart a less formal, conversational tone to their writing (Alotaibi 2015).

- (28) *As educators, **we** frequently search for more effective methods of communicating information and ...*

#### 4.2 Metadiscourse markers enacted in move structure

In this section, the distribution of metadiscourse across each move is presented. It is noteworthy that all five moves were identified in the present study. As depicted in Figure below, introduction moves (M1) recorded the highest frequency of metadiscourse, with 228 cases of interactive metadiscourse and 157 cases of interactional metadiscourse. This can be attributed to the fact that

each introduction move within the corpus spanned more than a single sentence, thereby necessitating the use of additional markers. This was then followed by Move 2, which had 263 cases of interactive metadiscourse and 34 of interactional metadiscourse.

In the realm of interactive markers, transitions, and code glosses predominated across the abstract moves, while evidential and frame markers emerged as the least frequent in all moves. This is in contrast to the findings of Ashofteh et al. (2020). Their research, aligning with Hyland's viewpoint (2005a), posits that evidentials in abstracts allow authors to showcase claims or arguments posited by previous researchers. This highlights the relationship between prior studies and the current one in terms of their aims and outcomes. Concerning interactional markers, most moves predominantly featured attitude markers, hedges, and boosters. This concurs with Ashofteh et al.'s (2020) findings, which indicated a higher prevalence of attitude markers and hedges across the five abstract moves.

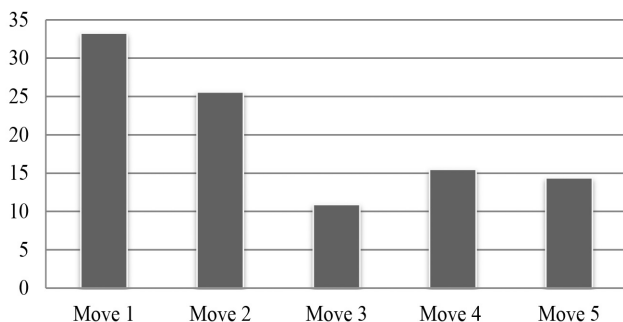


Figure 2: Metadiscourse distribution among all moves

#### 4.2.1 Move 1: Introduction

As illustrated in Figure below, transitions (45.4%) and attitude markers (24.4%) dominated the metadiscourse categories in Move 1. The majority of the transitions in M1 were additives (e.g. *in addition*, and *and*). These transitions enhance coherence between sentences by making the relationships explicit, especially where a writer introduces the topic succinctly. Contrastive transitions such as *however* and *although* were also prevalent in M1 to signify research problems. Attitude markers in M1 evaluated new knowledge claims, represented by adjectives like *important*, *worth*, and *effective*. Notably, academic writing usually demands a detached and objective approach (Stapleton 2002). However,

Libyan authors tended towards subjectivity when introducing their topics in M1. Other metadiscourse categories present in M1 included hedges (9.09%) and code glosses (7.5%). Hedges in M1 conveyed epistemic modality, which relates to the speaker’s assumptions, softening the impact of claims. Code glosses (e.g. *for example, for instance, this means*) in M1 offered examples, elaborated on topics, and provided readers with supplementary details. This suggests the authors’ consideration for readers’ knowledge and cognitive levels. Interestingly, one might expect more frequent evidential markers in M1 to support the research problems with citations. However, evidentials constituted just 3.6 per cent of the total metadiscourse in M1. Clearly, achieving the CARS (i.e. Create A Research Space) function (Swales 1990, 2004) without proper citation proves challenging.

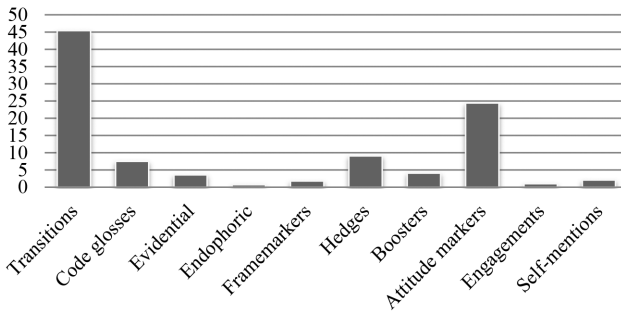


Figure 3: Metadiscourse distribution in Move 1

#### 4.2.2 Move 2: Purpose

In Move 2, frame markers (31.6%) and transitions (37.3%) recorded the highest frequencies, as shown in Figure below, with other metadiscourse categories manifesting lower occurrences. Transitions primarily linked concepts relevant to the study’s objectives. Conversely, frame markers in M2 demarcated text by sequencing and articulating objectives. A deeper analysis revealed the frequent use of announcers in M2. Also notable was the prevalence of endophoric markers (17.1%) in M2, possibly driven by the rhetorical needs of the move. In this move, authors typically state study objectives, employing phrases like *this study, this paper, and this research* to anchor their work in the present context. Additionally, the findings indicated comparable usage frequencies for both hedges (3.7%) and boosters (3.7%). Authors employed hedges (e.g. *the study attempts/tries*) and boosters (e.g. *the objective of this study was to show*) to convey varying levels of commitment to their aims.



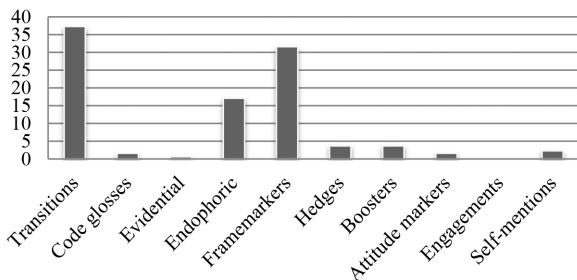


Figure 4: Metadiscourse distribution in Move 2

### 4.2.3 Move 3: Method

A detailed analysis revealed that transitions, code glosses, endophoric markers, and frame markers emerged as the primary markers in M3. Figure below shows the absence of attitude markers and engagements in this move, resulting in an objective tone. Transitions (57.4%), the most prevalent interactional metadiscourse markers in M3, connected the various methodologies. Another salient category was endophoric markers (14.1%), which introduced methods and related them to the present (e.g. *The data collection tools used in this study, 30 high school students were involved in this study*). Code glosses (9.4%) in M3 clarified methods and participants, while frame markers (8.6%), like *first* and *then*, outlined methodological sequences and procedures.

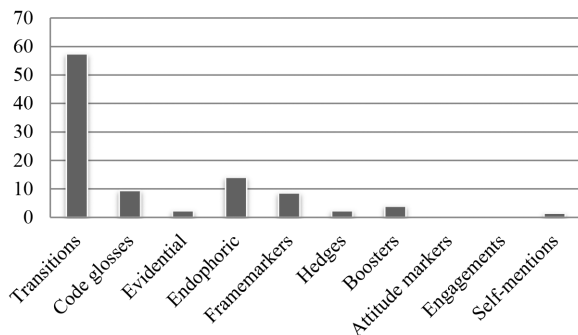


Figure 5: Metadiscourse distribution in Move 3

#### 4.2.4 Move 4: Product

In Move 4, transitions, attitude markers, hedges, and boosters stood out. Transitions (35%) structured results for clearer reader comprehension, though a closer look revealed a scarcity of comparative transitions, with additive markers being more common. Attitude markers (18.8%) in M4 emphasized the significance or interest of results and arguments. The consistent use of these markers suggests that Libyan applied linguistics writers lean toward subjectivity, despite academia's preference for objectivity. As shown in Figure below, the use of hedges (17.2%) and boosters (14.4%) was nearly equivalent. Hedges in M4 communicated potential reservations regarding results, while boosters exuded confidence in established findings. Notably, verbs like *show*, *find*, and *believe* were frequently used. A balance between these categories is essential; to gain academic approval, writers can employ boosters to underscore findings and hedges to acknowledge potential interpretative variations and pre-empt academic critiques (Ngai et al. 2018).

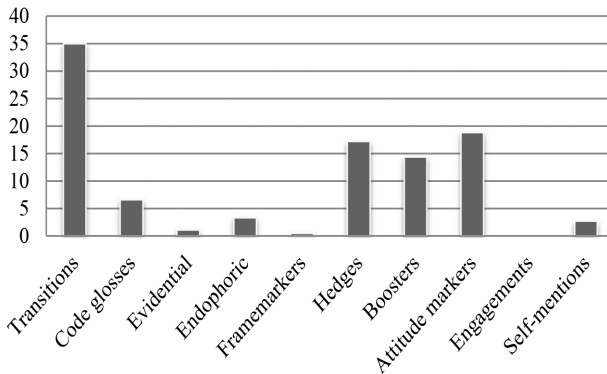


Figure 6: Metadiscourse distribution in Move 4

#### 4.2.5 Move 5: Conclusion

In Move 5, among all the metadiscourse categories, only transitions (40.1%), attitude markers (19.1%), and hedges (17.9%) were prominent. Given that this move was typically articulated in a single concise sentence, it exhibited the fewest metadiscourse features compared to the other four moves, as depicted in Figure below. Transitions in M5 served to interlink interpretations from various studies. Such transitions have the power to make complex and dull content both accessible and engaging to readers, guiding them in their pragmatic

understanding of the information (Hyland 2004). Again, attitude markers were employed to voice the researchers' perspectives and emphasize the importance and relevance of their findings. Hedges in M5, meanwhile, indicated a degree of uncertainty regarding interpretations and their broader implications.

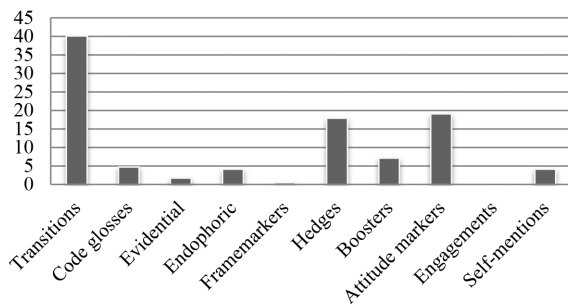


Figure 7: Metadiscourse distribution in Move 5

## 5 Conclusion

This paper examined the use of metadiscourse markers in the abstracts of research articles within the field of applied linguistics. Furthermore, it delved into how these metadiscourse elements manifested within the abstracts' structural moves. The findings suggest that Libyan authors have a pronounced dependence on transitions in their abstract writing. Conversely, evidentials were largely sidelined, and there was a noticeable dearth of engagements and self-mentions. In terms of the correlation between moves and metadiscourse, both M1 and M2 demonstrated the highest frequencies of metadiscourse markers. Of particular note, transitions topped the category list across all moves. Generally speaking, Libyan authors, being non-native English scholars, should acquaint themselves deeply with the conventions of English academic writing to produce cohesive and globally-accepted papers.

The insights gleaned from this study can lay the foundation for creating pedagogical resources tailored for budding Libyan writers and students. This would aid in guiding them on structuring their discourse in the abstract section and ensuring text cohesiveness through informed use of metadiscourse. Such understandings can also be invaluable for English for Academic Purposes educators, equipping both seasoned and novice non-native writers with the pragmatic and socio-rhetorical norms for structuring abstracts in their respective disciplines. Nevertheless, this research serves as an initial exploration, and a

broader spectrum of studies is warranted. A significant limitation to highlight is the study's focus on just one soft discipline, namely applied linguistics. Consequently, generalizing these findings to the entirety of academic disciplines, both soft and hard, would be imprudent. This distinction is pertinent as the literature indicates variances in the usage of metadiscourse markers between soft and hard academic disciplines.

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