

MAPPING THEMATIC AND PARADIGMATIC TRENDS IN ALGERIAN METADISCOURSE RESEARCH: A SCOPING REVIEW

 Maissa Bouaziz¹  Mokhtar Hamadouche²

¹ Larbi Ben M'hidi – Oum El Bouaghi University, Algeria

Didactique, Énonciation, Corpus, Linguistique, Interaction Culturelle (DÉCLIC) Laboratory
maissa.bouaziz@univ-oeb.dz

² Larbi Ben M'hidi – Oum El Bouaghi University, Algeria

Didactique, Énonciation, Corpus, Linguistique, Interaction Culturelle (DÉCLIC) Laboratory
m.hamadouche@univ-oeb.dz

Abstract: The global conversation on metadiscourse continues to expand, yet Algerian contributions to this discussion remain conspicuously absent. The present scoping review aims to map current patterns, highlight methodological practices, and contribute to setting future research priorities for Algerian metadiscourse research. Following Arksey & O'Malley's (2005) framework, the study analysed 30 studies, published between 2014 and 2024 and retrieved from ten local and international databases. The main findings indicated a surge in the literature since 2020, with a restricted focus on linguistic and disciplinary orientations. Markedly, the investigations centered on the analysis of English language within the field of applied linguistics. Academic written genres dominated the corpus, with student-authored productions forming the main segment of analysis. The review also highlighted the active involvement of early-career authors and the relative representation of gender-based studies. Of central concern, the majority of studies were published in non-indexed, unclassified journals. As a result, this contributed to limited exposure, restricting their impact within the targeted research communities. Methodologically, the mixed-methods approach was commonly employed with considerable variations in corpus size. As expected, Hyland's model (2005) served as the principal analytical taxonomy. Taken together, these findings collectively point to several issues, including the need for broader linguistic coverage, expanded genre representation, and greater methodological rigour and transparency. By systematically identifying these patterns and proposing possible avenues, this review serves as a foundation for future research that can enhance Algeria's visibility in global metadiscourse scholarship, promote more inclusive approaches, and support methodologically sound investigations across diverse genres and linguistic contexts.

Keywords: Algerian research, corpus analysis, metadiscourse, methodology, scoping review, academic writing, applied linguistics

How to cite the article:

Bouaziz, M., & Hamadouche, M. (2025). Mapping thematic and pragmatic trends in Algerian metadiscourse research: A scoping review. *Journal of Studies in Language, Culture, and Society (JSLCS)*, 8(4), pp. 298-322.

¹ Corresponding author: Maissa Bouaziz Authors' ORCID ID: <https://orcid.org/0009-0009-7041-0412>

1. Introduction

Within the mechanisms of communication, crafting a narrative that resonates with an audience requires more than a mere presentation of ideas. Whether through spoken or written mode, in professional, educational, or other contexts, communicators routinely make linguistic choices that anticipate the needs of their audience. These choices reflect an awareness that meaning is co-constructed, requiring rhetorical strategies that guide interpretation, foster clarity, and build rapport between the speaker or writer and the audience. Within this perspective, metadiscourse has become an essential analytical lens for understanding how individuals signal their intentions, structure their messages, and negotiate presence. Far from being marginal embellishments, metadiscourse markers perform core functions that reinforce the pragmatic and interpersonal dimensions of language use.

Over the past decades, the role of metadiscourse has been significantly researched within different genres, disciplines, languages, and cultures. Recent studies have extended its reach to numerous interesting areas including, ChatGPT-generated texts (Jiang & Hyland, 2025), live streaming commerce (Liu & Cheng, 2025), intelligent data-driven learning (Esfandiari & Allaf-Akbary, 2024), corporate websites (Xu & Shi, 2025), virtual classrooms and public health posters during COVID-19 (Rababah et al., 2024; Al-Subhi, 2024), product launch conferences (Liu & Xu, 2024), English as a Medium of Instruction (EMI) intercultural lectures (Bernad-Mechó, 2024), thesis presentations (Ma & Jiang, 2024), television talk shows (Mensah et al., 2025), business students' writing (Appel & McKay, 2025), tweets (Feng et al., 2024), parliamentary debates (Schröter & Jung, 2023), self-help books (Fialkoff & Pinchevski, 2023).

Given this proliferation of metadiscourse-related studies across different contexts and genres, there arises a need for integrative works that capture key developments and thematic trends. In this context, researchers commonly prioritise review articles as their initial resource when pursuing new research initiatives. Review papers offer a thorough compilation, synthesising different research findings into a unified narrative. Their importance lies in clarifying definitions and boundaries while providing a comprehensive overview of existing knowledge, addressing gaps and inconsistencies, outlining the scope of research topics, evaluating methodologies, and proposing conceptual frameworks for new research avenues (Palmatier et al., 2017). Although review studies demonstrate growing international engagement with metadiscourse, regional blind spots continue to persist.

To date, and to the best of our knowledge, major review works have drawn attention to novice or expert contributions from almost all around the globe, but Algeria. This might be attributed to different factors, including the limited number of research studies, quality/significance, or publication issues. On top of that, while review papers have proven to be valuable and time-efficient for readers, no prior scoping reviews have been dedicated to mapping metadiscourse research within the Algerian context. With that being said, the current study represents an initiative to delineate how the concept is approached and analysed by Algerian researchers, ultimately aiming to further clarify the status quo and showcase more visibility within the international scope of metadiscourse research.

2. Literature Review

2.1. *Metadiscourse*

To set the scene, the term ‘metadiscourse’ was initially coined by the structural linguist and discourse analyst Zellig Harris (1959), yet it only came into surface with the contributions of Williams (1981), Vande Kopple (1985), Crismore et al. (1993), and Hyland (2005). The concept originated as a response to rectifying earlier perceptions of discourse, which viewed texts as simply expository means for delivering content (Hyland & Jiang, 2022). Metadiscourse, therefore, functions based on the writer's assessment of their readers' requirement for clarification and engagement, guaranteeing the provision of adequate cues to facilitate comprehension of the content (Hyland, 2005). It acts like a built-in filter, constantly offering behind-the-scenes commentary to ensure that the message is received as intended (Hyland, 2017). Thus, “metadiscourse is a pragmatic feature which is dependent on its rhetorical context” (Herriman, 2021, p. 121).

Throughout the years, metadiscourse has been categorised into various models. Early research works, influenced by Halliday's framework, identified two key levels: textual metadiscourse, which aids in presenting a coherent theory of experience through rhetorical strategies, and interpersonal metadiscourse, which conveys attitudes towards the content, fostering a closer connection between the writer and the reader (Wei et al., 2016). As the field of discourse analysis progressed, the understanding of metadiscourse expanded and evolved. Researchers began to recognise the diverse functions and manifestations of metadiscourse across different genres, contexts, and languages. Metadiscourse was found to serve not only structural functions, such as guiding the reader's understanding and signalling the organisation of a text, but also interpersonal functions, such as expressing attitudes, positioning the author, and managing reader engagement.

Therefore, two main approaches to its conceptualisation were identified: the narrow and broad approaches. The narrow approach focuses on linguistic elements for achieving textual functions, while the broad approach encompasses both textual and interpersonal functions, incorporating stance and validity markers. Ultimately, interpersonal metadiscourse serves as a tool that writers utilise to shape how they communicate with readers and how they aim to be perceived and understood, enhancing the overall comprehension of the text. Scholars like Williams (1981), Crismore (1983), Vande Kopple (1985), Crismore et al. (1993), and Hyland (1998; 2004) have contributed to the broad approach, classifying metadiscourse into various categories (Wei et al., 2016).

Hyland's (2005) model of metadiscourse, the most widely used taxonomy, distinguishes between interactive and interactional markers. The former involves how authors structure their text to enhance readability and facilitate reader comprehension. It focuses on the author's awareness of the audience's needs, knowledge, interests, and processing abilities, aiming to shape the text to meet these requirements (Azijah & Gulö, 2020). This type of metadiscourse guides readers through the text, engaging them and making the content more accessible. Interactive metadiscourse includes five subcategories: transitions, frame markers, endophoric markers, evidentials, and code glosses, each serving specific functions to aid in text organisation and reader engagement. Interactional metadiscourse, on the other hand, spotlights the author's interaction with the text by providing explanations and engaging with readers. It allows authors to make their views explicit and encourages reader response, fostering a collaborative text-building process. This type of metadiscourse comprises hedges, boosters, attitude markers, engagement markers, and self-mentions, each contributing to conveying the author's stance, certainty, attitude, and involvement in the text.

2.2. Review Studies on Metadiscourse

Drawing back to 2010, Crismore and Abdollahzadeh reviewed metadiscourse studies by Iranian graduate students, noting a focus on methodological variation and cultural influences on academic writing. Their findings revealed the need for consistent coding practices and indicated links between metadiscourse use, learner proficiency, and writing fluency. In the same year, Ädel and Mauranen pointed to persistent difficulties in defining metadiscourse and selecting appropriate methods for its investigation. Their review spanned multiple continents, Europe, Asia, Australia, and North America, and a broad range of academic texts, though English remained the primary focus. They emphasised that metadiscourse is not limited to academic writing but extends to various forms of language use. They also stressed its relevance beyond academia and its broader communicative role.

More recently, Wei et al. (2016) provided a comprehensive overview of metadiscourse research from 2000 to 2015. Their analysis examined various theoretical models, including Hyland's interpersonal model, and highlighted the shift from viewing language as merely propositional to recognising its role in writer-reader interaction. They noted an overreliance on English-language, corpus-based studies and advocated for broader investigations across linguistic and cultural contexts. Extending this view, Hyland and Jiang (2022) traced the development of metadiscourse research from 1983 to 2020 through a bibliometric lens. They observed a post-2006 surge in scholarly attention. The study identified key topics, influential authors and publications, and active disciplines and journals in the field. Findings drew attention to the prominence of academic and business writing, cross-disciplinary studies, and the growing adoption of an interpersonal model of metadiscourse.

Complementing these accounts, Pearson and Abdollahzadeh (2023) conducted a systematic review of 370 studies published between 1990 and 2021. The study underscored the dominance of descriptive, corpus-based methodologies and pointed out a persistent gap in studies engaging with non-English texts or real-time language use. The authors stressed the need for methodological diversification, especially through longitudinal designs and participant-based approaches. In parallel, Dong et al. (2023) conducted a bibliometric analysis to trace the evolution of metadiscourse research from 1980 to 2020. Utilising data from the Web of Science and CiteSpace software, they identified twelve thematic clusters within the literature, which progressed through three developmental stages: conceptualising, maturing, and flourishing. The study also highlighted pivotal publications that significantly influenced the field's development.

Further insights were provided by Li and Xu (2024), who examined trends from 1979 to 2023 using data from the Web of Science Core Collection. The study revealed a steady increase in metadiscourse-related publications, particularly after 2005 and 2015, and identified the most prolific journals, authors, institutions, and countries in the field. Meanwhile, Song et al. (2024) reviewed 47 studies from 1983 to 2023 to examine how metadiscourse is used across various academic disciplines. The study revealed significant disciplinary variations, particularly in the use of interactional metadiscourse, with applied linguistics serving as the major area of concern. Hyland's interpersonal framework was commonly employed due to its practicality and comparability across studies. The authors emphasised the importance of discipline-specific metadiscourse instruction in academic writing courses and recommended further research into diachronic analyses and the impact of digital technologies on metadiscourse practices.

3. Methodology

A scoping review is a form of knowledge exploration and description that systematically and iteratively examines and consolidates the current or developing literature on a given topic (Tricco et al., 2018). This approach is useful in any investigated area, especially when the subject has not yet been extensively reviewed (Arksey & O'Malley, 2005). Scoping reviews serve as a valuable tool for gauging the breadth of literature on a given topic, offering a clear assessment of the volume of available studies (Munn et al., 2018). This is achieved through a systematic process of identifying, selecting, and charting studies across diverse sources and designs, revealing the extent, range, and nature of the literature.

Unlike systematic reviews, scoping reviews do not typically assess the overall quality of the included studies (Levac et al., 2010). While this may be seen as a limitation, it allows researchers to focus on identifying key concepts, trends, and gaps in the existing body of knowledge, thus providing valuable insights for shaping future research directions (Peters et al., 2020). In accordance with this approach, scoping reviews are designed to map a broad array of scholarly works, regardless of their quality, in order to offer a comprehensive understanding of the current state of knowledge, highlight missing areas, and reveal the major trends influencing the field.

Given the distinctive features of this study and taking experts' judgment into consideration, a scoping review methodology was deemed appropriate. In carrying out this work, we closely adhered to the framework outlined by Arksey and O'Malley (2005). Accordingly, the latter seminal work does not prescribe a rigid approach to scoping reviews but rather advocates for a flexible, iterative process. This begins with defining the research questions and scope, followed by systematic searching for relevant studies using predetermined criteria. Extracted data from each study is then charted in a standardised format, allowing for analysis, synthesis, and reporting of key trends and research gaps.

Stage 1: Identifying the research questions

Following the principles of scoping review methodology, the subsequent research questions serve as the core for a structured and methodical examination of metadiscourse research in the Algerian context. This step seeks to uncover the following:

- What are the current trends of Algerian metadiscourse research?
- What methodological attributes define Algerian metadiscourse studies?
- What are the future directions of Algerian metadiscourse research?

Stage 2: Identifying relevant studies

The current paper adopted an exhaustive search strategy aimed at inclusivity. It covered electronic databases, search engines, search filters and limiters, hand-searching key journals, reference mining, expert consultation and considering relevant grey literature. Various iterations were implemented to fine-tune the search strategy, including backward and forward searching of eligible studies.

The initial piloting search was performed with no year, region, or language restrictions. Respectively, it was conducted across both local and international databases to avoid disregarding pertinent studies. The search covered 10 platforms, including Portail National de Signalement de Thèses (PNST), Online National Documentation System (SNDL), Algerian Scientific Journals Platform (ASJP), Algerian University Repositories, Thèses-Algérie, Arab World English Journal (AWEJ), Education Resources Information Center (ERIC), Sage Journals, Science Direct, and Google Scholar.

Additionally, incognito mode helps reduce personalised search results based on one's browsing history, minimising the influence of past activity on search outcomes. While this approach does not eliminate all algorithmic biases, such as ranking based on popularity, location, or Search Engine Optimisation (SEO), it helps prevent the results from being overly shaped by the user's prior searches. To support the goal of capturing a diverse and representative range of literature, all Google searches for this review were conducted using incognito mode.

Following the research questions and after the preliminary piloting search to determine the scope of research, the researchers decided on the most relevant keyword descriptors, making use of concept mapping, which strategically inhibits the inadvertent exclusion of core studies. This is only logical because opting for wide and general key terms can yield an unlimited set of irrelevant references.

In order to efficiently approach metadiscourse research and properly align with the study's objectives, a combination of Boolean operators, wildcards, and controlled vocabulary was used. Subsequently, "AND" hones in on studies covering specific terms, like ("*metadiscourse*" AND "*Algerian*"). Conversely, "OR" broadens the search by finding articles with at least one term, as in ("*metadiscourse*" OR "*interactional metadiscourse*" OR "*interactive metadiscourse*").

Proximity operators, specifically NEAR or ADJACENT, were adopted to refine the search for metadiscourse elements related to the Algerian context within titles and abstracts. This technique facilitated the identification of instances where these terms appeared in close proximity, enhancing the precision of the search and providing a more targeted selection of relevant literature.

Given that educators often use their professional emails for publishing articles, the authors tried to retrieve data based on the widely recognised format of Algerian emails. This demanded making use of search operators as in in-text: "univ-oeb.dz", in-text: "univ-biskra.dz".

To expand the pool of relevant sources, reference list snowballing, or citation chaining, approach was systematically applied. This required an examination of references within identified studies. Moreover, a manual search was conducted of targeted Algerian journals, like Journal of Studies in Language, Culture and Society (JSLCS), which are assumed to contain related data.

Notably, the research team consulted domain and subject experts and practitioners, gaining substantial perspectives and guidance for relevant additional studies. The search process persisted until a saturation point was attained, signifying that no additional sources could be further identified. Therefore, the identification phase reached ample coverage of relevant material within the specified scope.

Stage 3: Study selection

Following the identification phase, the synergy of the various search methods culminated in a compilation of 1414 references. A systematic three-stage assessment approach was then implemented for the identified publications. The latter underwent a review involving duplicate and review papers removal, title and abstract scrutiny, and in-depth examination of full-text publications. In the initial stage, duplicates were manually detected and removed from the dataset. Thereafter, the researchers independently reviewed the titles and abstracts of the remaining studies for eligibility. In the final stage, full-text studies corresponding to the identified relevant records were retrieved and scrutinised to determine if they conformed to the inclusion criteria.

While the initial search was not constrained by a specific time frame, it became evident during the screening process that the selected studies spanned the last decade. No relevant studies before 2014 were found. Therefore, the decision to focus on the period from January 1st 2014, to December 31st 2024, is a reflective outcome of the selection process rather than an initial limitation. This decision ensured that the analysis is primarily inclusive and centers on the most relevant academic metadiscourse research, aligning with the emergent trends and developments within the concept over the past ten years.

Establishing clear criteria was crucial for guiding the inclusion and exclusion of studies in the review to ensure the relevance of the selected articles. As demonstrated in Table 1, the focus was on studies conducted by Algerian researchers affiliated with Algerian universities and published in the English language only. Considering the nature of the research questions, all study approaches, including mixed-methods, qualitative, and quantitative, were considered. The inclusion criteria embraced all types of publications, such as articles, grey literature, and conference papers, while excluding conference abstracts or summaries that lack the complete details or data required for the review. As we previously mentioned, the publication timeframe was limited to studies published between 2014 and 2024, excluding those beyond this specified period.

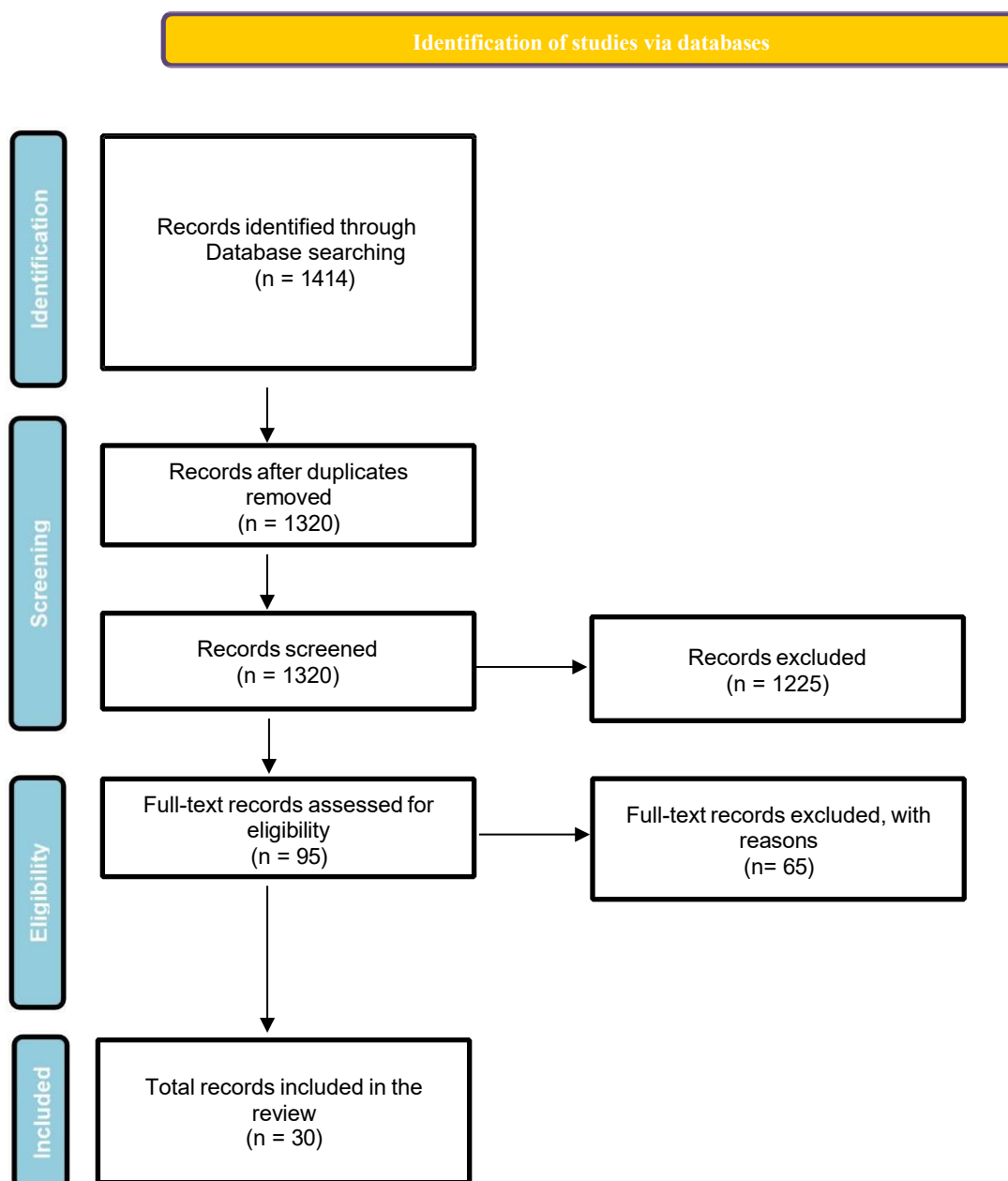
Table 1
Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Language	English	Languages other than English
Authors	Studies conducted by Algerian researchers	Co-authored works with non-Algerians
Research Approach	Mixed-Methods, Qualitative, Quantitative	/
Publication Type	All types of publications (articles, conference papers, dissertations, theses, etc.)	Abstracts or summaries from conferences that do not provide full details/papers or data necessary for the review
Year of Publication	2014-2024	Studies published beyond the specified period
Affiliation	Algerian universities	Foreign universities
Databases	PNST, SNDL, ASJP, Algerian University Repositories, Thèses-Algérie, AWEJ, ERIC, Sage Journals, Science Direct, Google Scholar	Other databases

Following database searches, numerous studies were identified: PNST (3), ASJP (4), SNDL (6), Algerian University Repositories (32), Thèses-Algérie (890), AWEJ (15), Google Scholar (236), ERIC (217), Sage Journals (2), and Science Direct (9). As recommended by Peters et al. (2020) and shown in Figure 1, we followed the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses and its extensions for Scoping Reviews) for reporting the results, which identifies the key steps to include in order to improve methodological transparency.

Figure 1

PRISMA 2020 Flow Diagram of Scoping Review Results



Stage 4: Charting the data

The coding process involved a detailed categorisation of each selected study, ensuring that all significant dimensions were systematically recorded. This categorisation included three primary areas: a) bibliographic and substantive details, b) key themes, and c) methodological features. Bibliographic and substantive details encompassed author(s), year of publication, type of publication, and authors' institutional affiliations. Key themes were identified through analysis of the targeted genre, the specific section of the text being studied, and the academic discipline. Methodological features included research approaches, corpus size, and taxonomies employed for analysis. The web-based application Notion was used to streamline this process, enabling effective organisation and tracking of these details.

Stage 5: Collating, summarising, and reporting the results

Thematic analysis was conducted using Clarke and Braun's six-step framework to ensure a systematic examination of the data. This process began with familiarisation, where the data were thoroughly reviewed to develop a holistic understanding of the content. Initial codes were then generated, highlighting features of the data relevant to the research objectives. These codes served as the foundation for identifying potential themes, which were patterns of meaning that captured substantial aspects of the dataset. The themes were subsequently reviewed to ensure they accurately reflected the data and were distinct yet interrelated. After this, the themes were defined and named to sum up their essence and provide clarity. Finally, the findings were documented in a coherent and structured report, presenting the identified themes with illustrative examples and linking them to the research questions (Clarke & Braun, 2006). This systematic approach guarantees that the results are presented in a clear, concise, and meaningful manner, facilitating an understanding of the underlying patterns in the data.

4. Results

4.1. Substantive Features of the Studies

Table 2 compiles the selected research works with entries including details, such as author(s), publication year, research work type, and authors' affiliations, providing a clear record of studies in this area. The included works span from 2014 to 2024, involving 16 master's dissertations (MDs) (53.3%), 12 research articles (RAs) (40.0%), one doctoral thesis (3.3%), and one book chapter (3.3%). Based on the inclusion criteria, all researchers are affiliated with Algerian universities, with the majority hailing from either north-central (Algiers, Medea, Tizi Ouzou, M'sila), north-eastern (Jijel, Constantine, Oum El Bouaghi (OEB)), or southern (Biskra, El Oued, Adrar) regions. Additionally, 40% of the works are attributed to OEB University, with 53.3% of the research being carried out by novice researchers. Furthermore, the gender distribution among the researchers is imbalanced, with 32 female (72.7%) and 12 male (27.3%) contributors to the compilation of selected literature. Markedly, a noticeable surge in the literature (86.7%) has arisen from 2020 onwards, marking a growing inclination towards metadiscourse research.

Table 2
Substantive Features of the Studies

Number of the Research Work	Author(s)	Year of Release	Type of the Research Work	Author(s)' affiliation/ Universities
1.	Nassira Boudersa	2014	RA	Constantine 1
2.	Soumia Kaies	2018	MD	OEB
3.	Tahar Bouchemet	2019	RA	Constantine 1
4.	Hanene Belouettar	2019	MD	OEB
5.	Amena Mesbahi			
	Djamel Mezrag	2020	RA	OEB
	Sarah Merrouche			
6.	Zeyneb Khaldi	2020	RA	Tizi-Ouzou
	Slimane Boukhentach			Jijel
7.	Kadir Wissam	2020	MD	Tizi-Ouzou
8.	Chaima Chabbi	2020	MD	Jijel
9.	Aissam Abdellouche	2020	MD	Jijel
	Ayoub Derghoum			
10.	Imane Messabhia	2020	MD	OEB
11.	Tariq Boumedjou	2020	MD	OEB
	Ayoub Houadsi			
12.	Wafia Berkani	2020	MD	OEB
	Selwa Merzougui			
13.	Rokia Djafer	2020	MD	Biskra
14.	Sara Gasmi	2021	MD	OEB
15.	Yassamine Djaidja	2021	MD	M'sila
	Amina Aicha Mabrouki			
16.	Ansar Agabi	2021	MD	OEB
	Meriem Ferkani			
17.	Tlemçani Sarah Soltana	2022	MD	Medea
	Tchikou Moufida			
18.	Bachir Bouhania	2022	RA	Adrar
19.	Amina Loucif	2022	RA	Constantine 1
	Madjda Chelli			
20.	Fairouz Souici	2022	RA	Teacher-Training School of Assia Djebar
	Doudja Slougui			Constantine
21.	Tarek Assassi	2023	RA	Biskra
	Kenza Merghmi			
22.	Djamel Mezrag	2023	Doctoral Thesis	OEB
23.	Amani Lakhdari	2023	MD	OEB
	Chaima Kenouz			
24.	Tarek Assassi	2023	Book Chapter	Biskra
25.	Kenza Merghmi	2024	RA	Biskra
	Ahmad Chaouki Hoadjli			
26.	Faiza Ait Abdeslam	2024	RA	Teacher-Training School of Bouzareah, Algiers
27.	Chaima Kacimi	2024	RA	Biskra
	Hayat Messekher			Teacher-Training School of Bouzareah, Algiers
28.	Kaouthar Nesba	2024	RA	El Oued
29.	Doua Beldjhem	2024	MD	OEB
30.	Warda Daraf	2024	MD	OEB

4.2. Major Motifs of the Studies

4.2.1. Linguistic, Disciplinary, and Cultural Perspectives

As summarised in Table 3, the prevailing focus of the studies is within the discipline of applied linguistics, with didactics coming as the subsequent area of interest. Most of the works focused on the analysis of studies within a single discipline. However, few studies ventured into cross-disciplinary (scientific fields), cross-linguistic (French and English), and cross-cultural (native and Algerian) contexts.

To elaborate further, the linguistic focus of the analysed corpus reveals a strong emphasis on monolingual analysis, with 28 out of 30 studies exclusively examining English language in various contexts. Only two studies adopted a cross-linguistic lens. Gasmi (2021) examined metadiscourse markers in English and French literature reviews written by MA students at Larbi Ben M'hidi University. This study revealed interesting similarities in the overall frequency of marker usage between the two languages, with only a 2% difference, though the specific types and functions of these markers showed notable variations. The second cross-linguistic study, by Nesba (2024), conducted a comprehensive analysis of newspaper editorials, comparing hedging devices across Arabic publications (*Echorouk and Elkhobar*) and British English newspapers (*The Independent and The Guardian*), revealing distinct patterns in hedging strategies between the two languages. The study found that while both languages employed hedging devices, English texts demonstrated a higher frequency of hedges, with a particular preference for modal auxiliary verbs, whereas Arabic texts favoured approximators of degree, quantity, frequency, and time.

From a disciplinary perspective, the corpus is heavily weighted toward academic monodisciplinary analysis, with 25 out of 30 studies focusing on English Language Studies. Within this field, Applied Linguistics accounts for the largest share, with 10 studies (e.g., Assassi, 2023; Boudersa, 2014; Kaies, 2018), followed by six studies in Didactics (e.g., Chabbi, 2021; Daraf, 2024; Mezrag, 2023), with the remaining works distributed across Linguistics (e.g., Djaidja & Mabrouki, 2021), Literature (e.g., Berkani & Merzougui, 2020), Civilisation (e.g., Lakhdari & Kenouz, 2023), and Anglo-American studies (e.g., Agabi & Ferkani, 2021). The corpus demonstrates a limited diversification into other disciplines, with very few studies incorporating cross-disciplinary and inter-disciplinary analysis (e.g., Ait Abdeslam, 2024; Kadir, 2020). Additionally, the corpus highlights a cross-cultural perspective by examining rhetorical practices among native and non-native users of English (e.g., Khaldi & Boukhentach, 2020; Nesba, 2024; Messabhia, 2020).

4.2.2. Student-Centric Focus and Academic Level Differences

Many of the included studies focus on student-produced texts. Notably, 60% (n=18) of the studies tackle how both undergraduate and postgraduate students employ metadiscourse markers in their academic writing. This student-centric approach is further emphasised by research such as that by Boudersa (2014) and Abdellouche and Derghoum (2020), who explored metadiscourse use in undergraduate expository and argumentative essays, respectively. Meanwhile, a considerable number of master's dissertations, such as those by Kaies (2018) and Belouettar and Mesbahi (2019), analysed metadiscourse in postgraduate theses, highlighting academic level differences in rhetorical choices. Although fewer in number, doctoral theses and published RAs contribute comparative insights, revealing the evolution of academic writing practices from early to advanced stages of scholarly development.

4.2.3. *Gender Differences in Metadiscourse Usage*

Gender-related patterns in metadiscourse use emerged as a prominent theme across five studies in the corpus. Khaldi and Boukhentach (2020) found that, contrary to conventional assumptions, Algerian males employed modal hedges more frequently than females during live debates, attributing this to cultural norms, participant age, and methodological variation. Djafer (2020) similarly observed greater hedge use among female EFL students, though the difference was not statistically significant. Expanding the scope, Tlemçani and Tchikou (2022) reported that male students made more frequent use of hedging devices across academic disciplines. Agabi and Ferkani (2021) noted that women tended to favour hedges and emotional expressions in argumentative writing, whereas men showed a preference for boosters. Merghmi and Hoadjli (2024) further highlighted that female thesis writers employed a broader range of interactional markers, suggesting that genre and disciplinary context may also shape gendered discourse practices.

4.2.4. *Genre Distribution and Targeted Sections*

As illustrated in Table 3, the majority of the corpus targets written academic genres, with MDs (46.7%, $n = 14$) and RAs (30%, $n = 9$) comprising the majority. MDs emerged as the most frequently analysed data source, featuring either exclusively or alongside other types. Essays (16.7%, $n = 5$) and doctoral theses (10%, $n = 3$) are also represented. In contrast, other genres such as online/spoken discourse (6.7%, $n = 2$) and newspaper articles/editorials (6.7%, $n = 2$) are less prevalent. Moreover, three studies (Beldjhem, 2024; Mezrag, 2023; Mezrag & Merrouche, 2020) within the corpus focus on the comparative examination of multiple genres, specifically examining doctoral theses, RAs, and MDs.

The analysis of the corpus reveals a distinct division in focus between sectional and full-text examinations. Among the 30 studies, 67% analyse specific segments such as conclusions (20%, $n = 6$), discussions (20%, $n = 6$), abstracts (16.7%, $n = 5$), introductions (13.3%, $n = 4$), literature reviews (6.7%, $n = 2$), and results (3.3%, $n = 1$). In contrast, the remaining (33.3%, $n = 10$) works analyse the full corpus, specifically full essays and articles/transcripts.

Table 3
Major Motifs of the Studies

Number of Publication	Targeted Genre	Analysed corpus/ section	Discipline/ Area
1.	Expository Essays	Full essay	Applied Linguistics
2.	MDs	General conclusion	Applied Linguistics
3.	MDs	Introduction and Conclusion	Applied Linguistics
4.	MDs	Discussion	English Studies
5.	Doctoral Theses, RAs, MDs	Abstract	Applied Linguistics
6.	Online Discourse (Oral Debates)	Full transcripts	Competent users of English as their first language (L1) or foreign/second language (L2)
7.	RAs	Results and Discussion	Scientific Disciplines
8.	MDs	General introduction	Didactics
9.	Argumentative Essays	Full essay	Applied Linguistics
10.	RAs	Literature review	Applied Linguistics
11.	Essays	Full essay	English Studies
12.	RAs	Discussion	Linguistics and Literature
13.	Spoken Discourse	Full transcripts	Undergraduate English Studies
14.	MDs	Literature review	English and French Studies
15.	MDs	Discussion	Linguistics
16.	MDs	Conclusions	Didactics and Anglo-American studies
17.	Argumentative Essays	Full essays	Undergraduate English Studies
18.	MDs	Abstracts and General Conclusions	Linguistics and Didactics
19.	Newspapers Articles	Full articles	The Independent and Khaleej Times
20.	RAs	Full articles	Biology
21.	RAs	Abstract	Applied Linguistics
22.	RAs, Doctoral Theses and MDs	Introduction	Didactics
23.	MDs	Conclusion	Civilization and Didactics
24.	RAs	Abstract	Applied linguistics
25.	MDs	Discussion	Applied Linguistics
26.	RAs	Abstract	Pharmaceutical, Engineering Studies, English Language Studies and Law.
27.	Argumentative Essays	Full essays	Undergraduate English Studies
28.	Editorials	Full articles	Editorials from two Arabic (Echorouk and Elkhobar) and two English newspapers (The Independent and The Guardian)
29.	Doctoral Theses and MDs	Discussion	Applied Linguistics
30.	MDs	Introduction and Conclusion	Didactics

4.2.5. Journals of Publication

As indicated in Table 4, most studies (9 out of 13) are published in ASJP-indexed journals, primarily classified as non-ranked or C-ranked, with impact factors of 0, reflecting ASJP's internal metrics. These journals are not indexed in the Web of Science Core Collection. Examples include *Djousour El-maarefa*, *Elwahat*, and *El-Quari'e*, with impact factors ranging from 0.0073 to 0.2294. Moreover, The *Journal of Human Sciences* holds a B rank (0.1900). Similarly, the *Journal of the College of Education for Women* lacks international indexing, restricting its visibility to regional scholarly circles.

Exclusively, both Academicus International Scientific Journal (Academicus ISJ) and the Jordan Journal of Modern Languages & Literatures (JJMLL) stand out for their increased visibility. Academicus ISJ was promoted through open-access platforms and citation-tracking tools such as PlumX and Altmetric (Assassi & Merghmi, 2023). Meanwhile, JJMLL is an internationally respected, peer-reviewed journal indexed in prominent databases, including Scopus, the Emerging Sources Citation Index, and the Arts and Humanities Citation Index (Merghmi & Hoadjli, 2024). As for the book chapter, *Research on English Language Teaching and Learning in the Middle East and North Africa* is the tenth volume in the well-established Routledge series, co-edited by Kathleen M. Bailey and David Nunan (Assassi, 2023).

Table 4
Journal of Publication

Number of Publication	Journal of Publication	ASJP Impact Factor	ASJP Rank
1.	Journal of Human Sciences Mentouri University Constantine Algeria	0.1900	B
3.	Journal of Human Sciences Mentouri University Constantine Algeria	0.1900	B
5.	Journal of Human Sciences Larbi Ben M'hidi University Oum El Bouaghi University Algeria	0.2649	Non-ranked
6.	Djousour El-maarefa Hassiba Ben Bouali University Chlef Algeria	0.0892	C
18.	Journal Of the College of Education for Women College of Education for Women-University of Baghdad Iraq	/	/
19.	Elwahat for Research and Studies journal Ghardaia University Algeria	0.2294	C
20.	Journal of Human Sciences Mentouri University Constantine Algeria	0.1900	B
21.	Academicus International Scientific Journal	/	/
24.	Research on English Language Teaching and Learning in the Middle East and North Africa (Book)	/	/
25.	The Jordan Journal of Modern Languages & Literatures Research & Graduate Studies Yarmouk University Jordan	/	/
26.	The Educational and Didactic Research Journal Teacher- Training School of Bouzareah Algeria	0.1595	C
27.	The Educational and Didactic Research Journal Teacher- Training School of Bouzareah Algeria	0.1595	C
28.	El-Quari'e Journal of Literary, Critical and Linguistic Studies El Oued University Algeria	0.0073	C

4.3. Paradigmatic Features of the Studies

As indicated in Table 5, a considerable number of works blended qualitative and quantitative analyses to investigate metadiscourse markers. The mixed-methods approach accounted for 26 out of 30 studies, which corresponds to approximately 86.6% of the total. In comparison, the quantitative approach was employed in only 4 studies, representing 13.3%. Most studies, including those drawing on Hyland's (2005) model, used frequency counts, coding procedures, and content analysis, often supported by tools like AntConc for corpus analysis. Several incorporated interviews or questionnaires to triangulate findings, while others conducted cross-sectional studies simulating longitudinal designs to observe developmental trends in metadiscourse markers usage. Sampling methods varied, including random and convenience sampling, and analyses typically culminated in comparing native and non-native outputs or high- and low-quality writings. Overall, the studies demonstrate a strong reliance on corpus-based comparative data analyses.

In terms of corpus size, Table 5 presents a wide variation, ranging from 8 transcription sets to as many as 80 texts. Overall, corpus sizes tend to cluster between 20 and 60 texts, which are the most commonly adopted ranges. Specifically, a corpus size of 20 is the most frequent, appearing in 8 studies (approximately 26.6%). Corpus sizes of 40 and 60 also feature prominently, occurring in 4 and 5 studies, respectively (representing 13.3% and 16.6%).

Regarding the adopted taxonomies, Hyland's model (2005) was by far the most utilised, applied either solely or in conjunction with other versions of Hyland's work in 21 studies (about 70% of the total). Other frameworks, such as Varttala's (2001), Blagojević's (2009), Yagiz and Demir's (2015), were also referenced but to a significantly lesser extent. Notably, in three studies, the taxonomy used was not explicitly stated.

Table 5*Paradigmatic Features of the Studies*

Number of Publication	Research Approach	Corpus size	Adopted Taxonomy
1.	Mixed-Methods	18 essays	Halliday and Hasan's (1976)
2.	Mixed-Methods	40 MDs (20 from Iowa State University and 20 From OEB University)	Hyland's Model (2005)
3.	Mixed-Methods	20 MDs	Hyland's Model (2005)
4.	Mixed-Methods	50 MDs (25 Experimental and 25 Non-Experimental)	Hinkel's (2005)
5.	Mixed-Methods	40 Doctoral Theses, RAs, MDs	Hyland's Model (2005)
6.	Mixed-Methods	18 transcription sets	Not explicitly mentioned
7.	Mixed-Methods	20 RAs	Hyland's Model (2005)
8.	Mixed-Methods	15 MDs	Hyland's Model (2005)
9.	Mixed-Methods	45 Essays (Third year and both Master levels)	Hyland's Model (2005)
10.	Mixed-Methods	20 Literature reviews of RAs (Algerian and British)	Hyland's Model (2005)
11.	Quantitative	30 essays	Hyland's Model (2005)
12.	Mixed-Methods	20 RAs	Vartalla (2001) Hyland (1994)
13.	Mixed-Methods	8 transcription sets	Not explicitly mentioned
14.	Mixed-Methods	12 MDs (6 French, 6 English)	Hyland's Model (2005)
15.	Mixed-Methods	40 Novice Researchers' MDs 40 Expert RAs	Hyland's Model (2005)
16.	Quantitative	60 MDs	Hyland's Model (1994)
17.	Mixed-Methods	20 essays	Hyland's Model (1994), Yagiz and Demir's (2015)
18.	Mixed-Methods	65 MDs	Hyland's Model (1999, 2005)
19.	Mixed-Methods	20 RAs - British newspaper (Independent) and the Emirati (Khaleej Times)	Blagojević's (2009)
20.	Quantitative	31 RAs	Vartalla (2001)
21.	Mixed-Methods	60 RAs (Native, Saudi, and Algerian)	Hyland's Model (2005)
22.	Mixed-Methods	A Total Of 60 PhD Theses, RAs, MDs	Hyland's Model (2005)
23.	Quantitative	40 MDs	Hyland's Model (2005)
24.	Mixed-Methods	60 RAs (Native, Saudi, and Algerian)	Hyland's Model (2005)
25.	Mixed-Methods	20 MDs	Hyland's Model (2005)
26.	Mixed-Methods	15 RAs	Hyland's Model (2005)
27.	Mixed-Methods	20 argumentative essays	Not explicitly mentioned
28.	Quantitative	60 editorials	Salager-Meyer's (1997) model
29.	Mixed-Methods	42 PhD Theses and MDs	Hyland's Model (2005)
30.	Quantitative	20 MDs	Hyland's Model (2005)

5. Discussion

Since 2020, Algerian metadiscourse research has seen a noticeable rise (86.7%), with contributions from both novice and experienced researchers. The global COVID-19 pandemic might have played a pivotal role in reshaping research tracks. The constraints on in-person and standard research contexts, including fieldwork, necessitated the adoption of remotely implementable methodologies. Corpus-based research, in particular, gained prominence during this period due to its logistical feasibility (Ochu, 2024). The analysis of 217 articles by Altameemi (2024) confirms a marked increase in corpus research output globally during the period from 2019-2022, with a shift in research focus to practical dimensions. Over the course of 2015 to 2023, metadiscourse research experienced what Dong et al. (2023) term as the 'flourishing stage'. The latter was marked by a broader thematic orientation and the implementation of well-established research methods. However, when compared to the international scale, the present study, which records 30 relevant publications, highlights the relative scarcity of metadiscourse research in Algeria. This hints at a gap between global trends and local academic output, raising questions about the extent to which Algerian scholarship has aligned with international research.

The linguistic analysis of the corpus accentuates a preference for monolingual investigations, with 93% of the works focusing solely on the analysis of English language in different contexts. This extra attention could also be understood as a consequence of Algeria's ongoing educational reforms, which emphasise English language proficiency as a means of facilitating access to global academic discourse. As these results reveal, Pearson and Abdollahzadeh's (2023) systematic review of metadiscourse research (1990-2021) similarly identifies English as the most studied language. This is further evidenced by Li and Xu's (2024) bibliometric survey (1979-2023), which identifies English as the dominant language of metadiscourse-related publications, with Spanish, French, German, and Russian following in line. However, the near absence of cross-linguistic studies presents a missed opportunity, particularly in a linguistically diverse country like Algeria, where Arabic, Berber, and French languages coexist. This oversight restricts the depth of analysis and prevents Algerian research from contributing to the large-scale conversation on the relationship between language, culture, and rhetorical practices. Cross-linguistic studies can offer interesting insights into how cultural preferences shape communication styles (Gai & Wang, 2022). By expanding the scope to include official or *de facto* languages, Algerian research could provide different interpretations that reflect its rich linguistic heritage.

Moreover, a significant proportion of Algerian metadiscourse research is found within the confines of English language studies (83%), primarily in the field of applied linguistics. In alignment with this result, Hyland and Jiang (2022), in their analysis of 431 metadiscourse-related papers indexed in the Web of Science Core Collection (1983-2020), reveal that research in this area mostly falls under the umbrella of applied linguistics and discourse analysis in general. This reflects the tendency to treat metadiscourse as an issue primarily relevant to language education and English academic writing (Hyland, 2017). While this focus is valid and necessary for improving academic writing skills, it also demonstrates a narrow disciplinary focus. The relative lack of cross-disciplinary studies in the Algerian context suggests that the potential of metadiscourse in fields such as biomedical sciences, business, or STEM remains underexplored. With the implementation of English as a Medium of Instruction (EMI) at Algerian universities and the growing emphasis on communication strategies in professional and scientific discourse, there is a clear need to broaden the focus. Hence, it would be important to shift the lens to include other disciplinary perspectives. Correspondingly, more in-depth and critically informed interdisciplinary and cross-disciplinary research is required, as Harwood (2006) contends, "distinguishing between writing practices only at the disciplinary level is an oversimplification" (p. 443).

Consistent with Pearson and Abdollahzadeh's (2023) review, the majority of the works (86,7%) analyse written academic genres. While the selected studies have presented insightful analyses across a multitude of academic genres, including MDs, doctoral theses, argumentative/expository essays, and RAs, these four categories represent only a fraction. Hyland and Jiang (2022) asserted that there exists a significant risk of metadiscourse being excessively linked to the description of a restricted set of text genres, consequently missing the possibility of fully exploiting its potential as a systematic method for understanding participant interaction in other contexts. Hence, there are additional areas of academic writing that merit further exploration. To name a few: creative/personal writing, conference papers, research proposals, review articles, and book chapters/reviews. Likewise, other genres such as AI-generated texts, digital communication, corporate branding, etc., offer interesting insights into contemporary communication practices. On the other hand, Dynel (2023) argues that the focus on written discourse may overshadow the equally important spoken contexts. In this regard, Farahani (2020) indicates that spoken genres often necessitate a more explicit projection of the speaker's identity and stance, facilitating interpersonal engagement and the real-time negotiation of meaning. Viewed from this perspective, the spoken mode in the Algerian context invites further investigation, given its distinctive contextual demands and interactional immediacy.

Drawing on the previously discussed, it is not surprising that a substantial portion of the studies (60%) is student-centric, specifically targeting how learners employ metadiscourse markers in writing their MDs and essays. As students are still developing these rhetorical skills, much of the research naturally gravitates toward how metadiscourse can be effectively taught and acquired in educational settings. However, it remains a critical concern that metadiscourse is not explicitly integrated into formal instruction. Without a practical translation of research insights into classroom practice, such findings risk being overlooked despite their usefulness. Of particular relevance, studies reviewed by Amiryousefi and Rasekh (2010) demonstrate that explicit instruction in metadiscourse features can enhance students' writing performance, comprehension, and rhetorical awareness. Hence, developing a pedagogically sound, context-responsive, and practically viable method for integrating metadiscourse instruction in curricula merits particular attention. Extending this line of thought, the heavy emphasis on student texts solely may constrain theoretical development by limiting analyses to beginner-level. Accordingly, conducting comparative studies between novice and expert communicators could be mostly useful for educators seeking to improve instruction by integrating advanced-level discourse practices.

Much of the existing research appears to be produced by graduate-level students. Even though the dominance of novice researchers could bring fresh ideas, this may at times reflect developing research practices and limited disciplinary experience. The prevalence of grey literature limits the visibility and academic recognition of Algerian contributions to the field. This suggests that Algerian metadiscourse research is not yet achieving its full potential for international engagement, as half of the works are unpublished. The under-representation of senior researchers in metadiscourse research points to several issues. If there are not enough mentors, conferences, workshops, or established studies dedicated to metadiscourse, students or novice researchers may not be exposed to its relevance. Without a strong network or support, it may be difficult for such areas to gain traction. Senior Algerian researchers, like many in the world, seem to be trying to catch up on the trends in modern technology or communication, such as digital communication practices, social media language, or the language of AI. Since these are areas that resonate more strongly with younger generations or have more ongoing appeal, metadiscourse research may seem less relevant to their professional goals. Yet, if this is the case, this could be twisted to a point in favour by linking metadiscourse to these modern areas of interest.

In terms of journal quality, most studies are published in local non-indexed or unclassified journals, which commonly have restricted global recognition. This creates a cycle where Algerian research is not as widely shared or recognised internationally, leading to fewer citations and, consequently, less incentive for new researchers to pursue similar studies. Ultimately, the low visibility of Algerian metadiscourse research represents a major impediment to international engagement. Both bibliometric analyses by Hyland and Jiang (2022) and Pearson and Abdollahzadeh (2023) identify the top three most prominent journals for metadiscourse publications: *Journal of English for Academic Purposes*, *English for Specific Purposes*, and *Journal of Pragmatics*. Although each study provides a list of over ten leading journals in the field, none of the Algerian studies examined were published in these outlets. To improve the visibility of Algerian metadiscourse research, institutional support is crucial. This could take the form of providing incentives for publishing in high-impact, indexed journals, offering training on research methodologies, or fostering international collaborations through funded projects. As in many parts of the world, universities could consider establishing research centres or networks dedicated to corpus analysis, which would help institutionalise the field within the Algerian academic framework.

Methodologically, most studies adopt a mixed-methods approach with a corpus size typically ranging from 8 to 80. As noted by the previous research, metadiscourse analyses are driven by discourse-analytical methods, especially using corpora (Hyland & Jiang, 2022). Similar to what Pearson and Abdollahzadeh (2023) reported, studies involving smaller datasets often prioritise the analysis of longer texts, adopting qualitative methodologies and frequently integrating discourse analysis with complementary methods such as interviews. In contrast, research incorporating larger corpora commonly aligns with quantitative approaches and occasionally makes use of automated analytical techniques or concentrates on a limited set of items. The small size corresponds with the widespread practices in English for Specific Purposes and English for Academic Purposes research, where smaller corpora are favoured for producing findings closely tied to the needs of educational contexts (Alshahrani, 2015). Even so, recent studies reaffirm the principle that larger corpora lead to better results (Wolfer & Koplenig, 2024). In reconciling these perspectives, Anthony (2013) emphasises that the value of a corpus is determined less by its size and more by the type of data it can provide. Accordingly, careful attention must be given to balancing breadth and depth to avoid arbitrary decision-making.

Due to its structured approach, which provides both clarity and practicality, Hyland's (2005) taxonomy was adopted by the majority of studies. Its worldwide frequent use without adaptation attests to its continuous prominence in the field of metadiscourse (Song et al., 2024). Yet, several studies do not foreground a specific model, focusing on simple frequency counts of metadiscourse markers without sufficient contextual or functional interpretation. This reliance on surface-level analysis can overlook the pragmatic and rhetorical functions of metadiscourse in context, reducing the quality of the studies conducted. Without a clearly stated model, studies often suffer from ambiguous definitions of what counts as metadiscourse. This leads to inconsistencies in identifying and categorising metadiscourse markers, making it difficult to determine the scope and boundaries of the analysis.

6. Conclusion

Although current Algerian research partially reflects global trends, its overall volume and diversity remain modest. If Algerian metadiscourse research is to contribute meaningfully to global conversations, there is a persisting need for more ambitious works. Research must address gaps by cultivating diversity in research themes, expanding corpus designs, and prioritising publications in national and international reputable journals. The support of academics who encourage quality over quantity and critical engagement over descriptive accumulation is highly required.

Moving forward, it is evident that a single or even a few research works cannot, in any way, comprehensively cover all aspects of a given area. Research initiatives inherently require specificity and focus to address particular questions or hypotheses effectively. Nonetheless, to prevent exhaustive replication and ensure constant progress, it is essential to highlight aspects that remain unexplored or under-examined. To this end, the current scoping review serves as a reference for future metadiscourse research works, with the hope of encouraging investigations in areas that could expand the boundaries of the current trend.

References

- Abdellouche, A., & Derghoum, A. (2020). *An exploratory cross-sectional study of the use of metadiscourse in argumentative essays in the subject of applied linguistics among Algerian university students of English at the University of Jijel* (Master's thesis, Mohamed Seddik Ben Yahia University). Retrieved from <http://dspace.univ-jijel.dz:8080/xmlui/handle/123456789/9534>
- Ädel, A., & Mauranen, A. (2010). Metadiscourse: Diverse and divided perspectives. *Nordic Journal of English Studies*, 9(2), 1-11. <https://doi.org/10.35360/njes.215>
- Agabi, A., & Ferkani, M. (2021). *Hedging in academic writing: Corpus-based analysis of the use of hedging in master dissertations general conclusions including the effect of gender* (Master's thesis, Larbi Ben M'hidi University, Oum El Bouaghi).
- Ait Abdeslam, F. (2024). Exploring the use of metadiscourse markers in Algerian's abstracts of articles across disciplines. *Revue des Recherches Educatives et Didactique*, 13(1), 925-938. Retrieved from <https://asjp.cerist.dz/en/article/243079>
- Al-Subhi, A. S. (2024). Interactional multimodal metadiscourse in public health posters during the COVID-19 pandemic. *Pragmatics and Society*, 16(2), 255–281. <https://doi.org/10.1075/ps.22092.als>
- Alshahrani, A. (2015). A cross-linguistic analysis of interactive metadiscourse devices employment in native English and Arab ESL academic writings. *Theory and Practice in Language Studies*, 5(8), 1535–1542. <https://doi.org/10.17507/tpls.0508.01>
- Altameemi, Y. M. (2024). State-of-the-art review of the corpus linguistics field from the beginning until the development of CHATGPT. *Theory and Practice in Language Studies*, 14(2), 423–431. <https://doi.org/10.17507/tpls.1402.13>
- Amiryousefi, M., & Rasekh, E. A. (2010). Metadiscourse: Definitions, issues and its implications for English teachers. *English Language Teaching*, 3(4), 159–167. <https://doi.org/10.5539/elt.v3n4p159>
- Anthony, L. (2013). A critical look at software tools in corpus linguistics. *Linguistic Research*, 30(2), 141–161. <https://doi.org/10.17250/khisli.30.2.201308.001>
- Appel, R., & McKay, R. (2025). The value of interactional metadiscourse in university level writing: Differences between high and low performing undergraduate business students. *English for Specific Purposes*, 79, 30–42. <https://doi.org/10.1016/j.esp.2025.03.002>

- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Assassi, T. (2023). Metadiscourse in academic abstracts written by Algerian, Saudi, and native English researchers. In *Research on English Language Teaching and Learning in the Middle East and North Africa* (1st). Routledge.
- Assassi, T., & Merghmi, K. (2023). Formulaic sequences and discourse markers in applied linguistics research papers: A cross-linguistic corpus-based analysis of native and non-native authors published articles. *Academicus*, 24, 154–175. <https://doi.org/10.7336/academicus.2023.27.10>
- Azijah, D. P., & Gulö, I. (2020). Interpersonal metadiscourse markers in Jacinda Ardern speech at Christchurch Memorial. *Linguistics and Literature Journal*, 1(2), 70–77. <https://doi.org/10.33365/lj.v1i2.594>
- Beldjhem, D. (2024). *Metadiscourse Markers across Time: A Corpus-based study of engagement and stance markers from master dissertations to PhD theses written by Algerian researchers* (Master's thesis, Larbi Ben M'hidi University University, Oum El Bouaghi).
- Belouettar, H., & Mesbahi, A. (2019). *A comparative corpus-based analysis of hedges and boosters in discussion sections of experimental and non-experimental master theses* (Master's thesis, Larbi Ben M'hidi University). Retrieved from <http://dspace.univ-oeb.dz:4000/items/6f9a9473-ffbd-40f9-88ab-be2f3ea5b9ae>
- Berkani, W., & Merzougui, S. (2020). *Err on the Side of Caution: A Corpus-based analysis of hedging devices in the discussion section of literature and linguistics RAs* (Master's thesis, Larbi Ben M'hidi University, Oum El Bouaghi).
- Bernad-Mechó, E. (2024). Building successful communication in EMI contexts: A multimodal approach to organizational metadiscourse in intercultural lectures. *Chinese Journal of Applied Linguistics*, 47(2), 259–280. <https://doi.org/10.1515/cjal-2024-0206>
- Bouchemet, T. (2019). Interactional metadiscourse in applied linguistics master theses: A Corpus-based comparative study. *Revue Science Humaines*, 3(30), 57–70.
- Boudersa, N. (2014). Connective expressions as metadiscourse markers of writing quality in undergraduate students' expository writing. *Revue Des Sciences Humaines*, 25(2), 45–56. Retrieved from <https://asjp.cerist.dz/en/article/90097>
- Bouhania, B. (2022). On the use of the first-person pronoun 'we' in final-year master projects of south Algerian EFL students. *Journal of College of Education for Women*, 33(2), 13–24. <https://doi.org/10.36231/coedw.v33i2.1585>
- Boumedjou, T., & Houadsi, A. (2020). *Computational text analysis: Readability vis-à-vis vocabulary use: The Case of second year EFL students at Larbi Ben M'hidi University* (Master's thesis, Larbi Ben M'hidi University University, Oum El Bouaghi).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Chabbi, C. (2021). *The use of metadiscourse in the general introductions of Algerian master EFL dissertations* (Master's thesis, Mohamed Seddik Ben Yahia University). Retrieved from <http://dspace.univ-jijel.dz:8080/xmlui/handle/123456789/9541>
- Crismore, A. (1983). *Metadiscourse: what it is and how it is used in school and non-school social science texts*, (report no: 273). Retrieved from ERIC website: <https://files.eric.ed.gov/fulltext/ED229720.pdf>

- Crismore, A., & Abdollehzadeh, E. (2010). A review of recent metadiscourse studies: The Iranian context. *Nordic Journal of English Studies*, 9(2). <https://doi.org/10.35360/njes.223>
- Crismore, A., Marrakanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, 10(1). <https://doi.org/10.1177/0741088393010001002>
- Daraf, W. (2024). *The use of the interactive metadiscourse markers in dissertations: A comparative-descriptive corpus-based study on chapters' introductions and conclusions*. (Master's thesis, Larbi Ben M'hidi University, Oum El Bouaghi).
- Djafer, R. (2020). *Investigating gender differences in the use of lexical hedges among Algerian EFL students: The case of third year students at Biskra University* (Master's thesis, Mohamed Khider University). Retrieved from <http://archives.univ-biskra.dz/handle/123456789/16068>
- Djaidja, Y., & Mabrouki, A. A. (2021). *Authorial stance in EFL master dissertations discussions: A corpus-based study case of master two students at M'sila University* (Master's thesis, Mohamed Boudiaf University, M'sila).
- Dong, J., Dong, S., & Buckingham, L. (2023). How does a research topic evolve into a research field? A bibliometric analysis of metadiscourse research. *Ibérica*, 45, 163–189. <https://doi.org/10.17398/2340-2784.45.163>
- Dynel, M. (2023). Lessons in linguistics with ChatGPT: Metapragmatics, metacommunication, metadiscourse and metalanguage in human-AI interactions. *Language & Communication*, 93, 107–124. <https://doi.org/10.1016/j.langcom.2023.09.002>
- Esfandiari, R., & Allaf-Akbary, O. (2024). Assessing interactional metadiscourse in EFL writing through intelligent data-driven learning: The Microsoft Copilot in the spotlight. *Language Testing in Asia*, 14(1). <https://doi.org/10.1186/s40468-024-00326-9>
- Farahani, M. V. (2020). Metadiscourse in academic written and spoken English: A comparative corpus-based inquiry. *Research in Language*, 18(3), 319–341. <https://doi.org/10.18778/1731-7533.18.3.05>
- Feng, J., Tang, J., Xiao, Y., & Zhu, C. (2024). Persuasion strategies of the major powers on social media: An analysis of the metadiscourse from the Chinese and American spokespersons' tweets. *Emerging Media*, 2(1). <https://doi.org/10.1177/27523543241283645>
- Fialkoff, Y., & Pinchevski, A. (2023). Skilling communication: The discourse and meta-discourse of communication in self-help books. *The Communication Review*, 27(2), 148–171. <https://doi.org/10.1080/10714421.2023.2254173>
- Gai, F. H., & Wang, Y. (2022). Correlated metadiscourse and metacognition in writing RAs: A cross-linguistic and cross-cultural study. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2022.1026554>
- Gasmi, S. (2021). *A corpus-based study of the use of discourse and metadiscourse markers in English and French: A comparative study of the literature reviews written by master 2 students of didactics in the Department of English and French, Larbi Ben M'hidi University* (Master's thesis, Larbi Ben M'hidi University, Oum El Bouaghi).
- Harwood, N. (2006). (In)appropriate personal pronoun use in political science. *Written Communication*, 23(4), 424–450. <https://doi.org/10.1177/0741088306293921>

- Herriman, J. (2021). Metadiscourse in English instruction manuals. *English for Specific Purposes*, 65, 120–132. <https://doi.org/10.1016/j.esp.2021.10.003>
- Hyland, K. (2005). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, 7(2), 173–192. <https://doi.org/10.1177/1461445605050365>
- Hyland, K. (2017). Metadiscourse: What is it and where is it going? *Journal of Pragmatics*, 113, 16–29. <https://doi.org/10.1016/j.pragma.2017.03.007>
- Hyland, K., & Jiang, F. K. (2022). Metadiscourse: The evolution of an approach to texts. *Text and Talk*, 44(3), 411–433. <https://doi.org/10.1515/text-2021-0156>
- Jiang, F. K., & Hyland, K. (2025). Rhetorical distinctions: Comparing metadiscourse in essays by ChatGPT and students. *English for Specific Purposes*, 79, 17–29. <https://doi.org/10.1016/j.esp.2025.03.001>
- Kacimi, C., & Messekher, H. (2024). Logos, ethos, and pathos in argumentative essays of third year English students at the University of Bouira: A metadiscoursal perspective. *Revue des Recherches Educatives et Didactique*, 13(2), 97–114. Retrieved from <https://asjp.cerist.dz/en/article/248873>
- Kadir, W. (2020). *The use of interactional metadiscourse markers in the results and discussion sections of Algerian scientific RAs* (Master's thesis, Mouloud Mammeri University). Retrieved from <https://dspace.ummo.dz/items/3a026290-d23e-4fdd-9772-7bedde0de7c0>
- Kaies, S. (2018). *A corpus based comparative study of the use of interactional metadiscourse markers in master theses general conclusions* (Master's thesis, Larbi Ben M'hidi University). Retrieved from <http://dspace.univ-oeb.dz:4000/items/1af35a44-300a-42bf-a54c-514ce70b3f31>
- Khalidi, Z., & Boukhentache, S. (2020). Genders' Talk on Online Discourse: The case of Report/Rapport Talk and Hedges. *Djoussour El-maarefa*, 6(1), 673–698. Retrieved from <https://asjp.cerist.dz/en/article/112368>
- Lakhdari, A., & Kenouz, C. (2023). *A Comparative corpus-based analysis of conclusion sections: Hedges and boosters in academic writing*. (Master's thesis, Larbi Ben M'hidi University, Oum El Bouaghi).
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, 5(1). <https://doi.org/10.1186/1748-5908-5-69>
- Li, G., & Xu, J. (2024). A Bibliometric survey of metadiscourse (1979-2023): Looking behind to look ahead. *Círculo De Lingüística Aplicada a La Comunicación*, 100, 253–270. <https://doi.org/10.5209/clac.76493>
- Liu, P., & Xu, W. (2024). The role of metadiscourse in online new product launch conferences. *Internet Pragmatics*. <https://doi.org/10.1075/ip.00114.liu>
- Liu, Q., & Cheng, W. (2025). "I'm telling you": The use of interactional metadiscourse in Chinese live streaming commerce. *Journal of Pragmatics*, 237, 14–29. <https://doi.org/10.1016/j.pragma.2025.01.001>
- Loucif, A., & Chelli, M. (2022). A corpus based contrastive analysis of attitude markers in News Articles about COVID-19. *ELWAHAT Journal for Research and Studies*, 15(2) 1517–1536. Retrieved from <https://asjp.cerist.dz/en/article/206937>
- Ma, Y., & Jiang, F. K. (2024). Guiding and engaging the audience: Visual metadiscourse in PowerPoint slides of Three Minute Thesis presentations. *English for Specific Purposes*, 77, 56–70. <https://doi.org/10.1016/j.esp.2024.10.003>

- Mensah, E. N. A., Hammond, C., & Wornyo, A. A. (2025). 'We mean more than what we say on air': Interactional metadiscourse resources in television talk shows. *Cogent Social Sciences*, 11(1). <https://doi.org/10.1080/23311886.2025.2472917>
- Merghmi, K., & Hoadjli, A. C. (2024). The use of interactional metadiscourse markers in the discussion section of master's theses written in English by Algerian students: An investigation of gender variation. *Jordan Journal of Modern Languages and Literature*, 16(1), 75–94. <https://doi.org/10.47012/jjml.16.1.5>
- Messabhia, I. (2020). *A corpus-based analysis of stance marking in RAs* (Master's thesis, Larbi Ben M'hidi University). Retrieved from <http://dspace.univ-oeb.dz:4000/items/83685665-7fb4-4603-88cd-d84e05e082eb/full>
- Mezrag, D., & Merrouche, S. (2020). Rhetorical structure and metadiscourse in research work abstracts: A contrastive genre analysis. *Revue des sciences humaines de l'université Oum El Bouaghi*, 7(3), 1622–1637. Retrieved from <https://asjp.cerist.dz/en/article/145960>
- Mezrag, D. (2023). *A Contrastive genre analysis of research works introductions written by English native speakers and Algerian learners of English as a foreign language* (Doctoral dissertation, Larbi Ben M'hidi University). Retrieved from <http://dspace.univ-oeb.dz:4000/items/36ea206c-f569-422e-87c8-43cfff2c569/full>
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1). <https://doi.org/10.1186/s12874-018-0611-x>
- Nesba, K. (2024). A contrastive analysis of the use of hedges in English and Arabic Newspaper Editorials. *El-Quari'e Journal of Literary, Critical and Linguistic Studies*, 7(2), 342-355. Retrieved from <https://asjp.cerist.dz/en/article/249207>
- Ochu, M. C. (2024). Utilizing corpora in Teaching English for academic purposes (EAP): A post-COVID-19 analysis. *International Journal of the Educational Studies*, 27(1).
- Palmatier, R. W., Houston, M. B., & Hulland, J. (2017). Review articles: Purpose, process, and structure. *Journal of the Academy of Marketing Science*, 46(1), 1–5. <https://doi.org/10.1007/s11747-017-0563-4>
- Pearson, W. S., & Abdollahzadeh, E. (2023). Metadiscourse in academic writing: A systematic review. *Lingua*. <https://doi.org/10.1016/j.lingua.2023.103561>
- Peters, M. D. J., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBIM Evidence Synthesis*, 18(10), 2119–2126. <https://doi.org/10.11124/jbies-20-00167>
- Rababah, G., Yagi, S., & Alghazo, S. (2024). Using metadiscourse to create effective and engaging EFL virtual classrooms during the Covid-19 pandemic. *Iranian Journal of Language Teaching Research*, 12(1), 107–129. <https://doi.org/10.30466/ijltr.2024.121421>
- Schröter, M., & Jung, T. (2023). Speaking up and being heard: The changing metadiscourse about 'voice' in British parliamentary debates since 1800. *Language & Communication*, 94, 41–55. <https://doi.org/10.1016/j.langcom.2023.12.002>
- Song, Z., Bin Hamat, A., & Rahman, A. N. B. C. A. (2024). Metadiscourse in English academic writing across disciplines: A systematic review. *Pakistan Journal of Life and Social Sciences*, 22(2). <https://doi.org/10.57239/PJLSS-2024-22.2.001482>
- Souici, F., & Slougui, D. (2022). Hedges in biology research articles: What types and frequency do Algerian authors use? *Revue des Sciences Humaines*, 33(4), 49–59. Retrieved from <https://asjp.cerist.dz/en/article/207587>
- Tlemçani, S. S., & Tchikou, M. (2022). *A Discursive psychological-based approach to the impact of gender on using metadiscourse markers* (Master's thesis, Yahia Fares University, Medea).

- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Weeks, L. (2018). PRISMA extension for scoping reviews (PRISMA-SCR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/m18-0850>
- Vande Kopple, W. (1985). Some exploratory discourse on metadiscourse. *College Composition & Communication*, 36(1), 82–93. <https://doi.org/10.2307/357609>
- Wei, J., Li, Y., Zhou, T., & Gong, Z. (2016). Studies on metadiscourse since the 3rd Millennium. *Journal of Education and Practice*, 7(9), 194–204.
- Williams, R. (1985). *Keywords: A vocabulary of culture and society*. USA: Oxford University Press.
- Wolfer, S., & Koplenig, A. (2024). Does corpus size influence normalised frequencies? *Preprint*. <https://doi.org/10.31219/osf.io/tr8de>
- Xu, W., & Shi, X. (2025). The use of multimodal interactional metadiscourse for CSR communication on Chinese companies' corporate websites. *Discourse Context & Media*, 64. <https://doi.org/10.1016/j.dcm.2025.10086>