Moves and Metadiscoursal Analyses of Abstracts of Published and Unpublished Humanities and Social Science Research

Andre Mae A. Bacolod
bacolod1903318@ceu.edu.ph

Richard M. Rillo
rmrillo@ceu.edu.ph

Centro Escolar University

Abstract

The first impression of any scholarly work done is influenced by the research article (RA) abstract. Most analyses of RA abstracts concentrate on general structure, but little attention has been paid to the differences in move structures and metadiscoursal resources between expert and novice abstract writings. The purpose of this study was to analyze the organizational and metadiscoursal characteristics of RAs in the humanities and social sciences by comparing published abstracts by expert scholars with unpublished abstracts by student writers. This study analyzed fifty RA abstracts using Hyland's (2000) five-move framework and his (2005) Interpersonal Model of Metadiscourse through frequency count and manual text analysis. The results suggested that published abstracts emphasized the 'Product', 'Conclusion' and 'Method' moves more than unpublished abstracts, which highlighted 'Conclusion', 'Product' and 'Purpose' more. This suggested that the former focuses on summarization, whereas the latter centered on rationale. Furthermore, unpublished abstracts utilized "interactional metadiscoursal resources" to a much greater extent than published abstracts, demonstrating that such unpublished work attempted more directly to engage the readers. Consequently, unpublished abstracts were less frequent with labels as "interactive metadiscoursal resources," suggesting that published abstracts were organized and flowed through the text more clearly. These unpublished abstracts concentrated on engaging the readers less and structural issues more. Incorporating tools such as specifying components of studies and adding constructive feedback can help improve the self-reflection and evaluative tools. Blending formal and interactive writing approaches in training may also help achieve balance. Following these will help ensure that the authors' abstracts for publication and presentation are articulate, accurate, and efficient.

Keywords: Genre Analysis, research abstracts, Move/Step Models, Metadiscoursal Resources, EAP

Introduction

Writing is the central hub for creating and distributing information across many academic fields. This insight development and sharing in academic circles significantly depends on documentation and published papers. Furthermore, the chance to publish and present research findings at reputable journals and conferences is contingent upon the act of writing. Achieving success in these disciplinary activities necessitates researchers to cultivate intricate genre expertise, encompassing a proficient grasp of the discursive and rhetorical norms linked to specific academic fields.

Consider writing as a type of conversation that exists as an interaction between the writer and the reader. Metadiscourse highlights how authors strategically locate themselves and outline their objectives along the steps towards achieving their goals.

At its core, it allows us to see how writers try to control how one reads the text and how one subsequently views its subject matter. Hence, metadiscourse, functioning as a categorical element, can be comprehended through several interpretations, encompassing punctuation marks like scare quotes and exclamations, as well as entire clauses and even sequences of multiple sentences (Hyland, 2000, as cited in Mansouri et al., 2016). The utilization of personal pronouns in writing serves the purpose of either reflecting the author's individuality or conveying their unique perspective.

Hyland (2017) characterizes metadiscourse as the methods through which the writers and speakers interact with the readers and listeners using language. Metadiscourse is the way linguistic references are used to organize a discourse and express the author's attitude either towards the subject matter or the audience. Metadiscourse inclusion allows one to improve difficult work without losing context while enhancing one's personality, authority, audience awareness, and determination about the work.

Therefore, Hyland and Shaw (2016) defined English for Academic Purposes (EAP) as one of the branches in language research and education which has a particular concern for the communicative needs and practices of people in academic settings. EAP is, therefore, a subfield of applied linguistics which encompasses teaching and assessment in the form of considerable research and description of the language and discourse features of academic texts as well as the practices of academics in their writing. The domain of English for Academic Purposes (EAP) concentrates on the examination of the writing constituents of various academic genres. Such practices are required if one is to function effectively as a full member of the academic community in a discipline.

Research articles are often regarded as a highly relevant genre in academic research writing, and it has been extensively studied and produced, resulting in several pedagogical consequences. Research articles (henceforth RAs) are essential in academic contexts and contribute significantly to various fields of expertise. Within the realm of academic societies, the dissemination and progression of novel knowledge is predominantly facilitated by scholarly publications (Yoon & Casal, 2020).

With the information explosion and development of different disciplines, RA abstracts rose in importance as integral parts of knowledge communication systems (Darabad, 2016). Every scholarly work contains an abstract, which is particularly a summarization of the study, and it is placed at the onset of the academic publication most of the time. The primary aim of this mechanism is to assist other readers and researchers in making informed decisions regarding the relevant literature. Because of the exponential increase in knowledge and information, considerable attention has been given to the abstracts of RAs. The focus on RA abstracts has increased due to the enormous attention they receive because of their significance to modern research, as highlighted by the countless RAs published each year. This is why an abstract is viewed as a critical part of an RA; it performs an important explaining role (Hardjanto, 2017).

Growing technologies allow for better communication which has contributed to the growth of academic publications. Authors frequently choose to publish their RAs globally to expand their readership, leading to a rise in the demand for international publications. The publication of academic literature, specifically RAs, holds significant relevance to the authors' respective fields of competence. Disseminating updated and advanced knowledge to the public has become increasingly urgent (Yoon & Casal, 2020). Moreover, the publication of scholarly work has gained outstanding importance as researchers and academics strive to share their latest findings and study. RAs serve as a prominent means of communication among researchers in contemporary academia. Qurratu'aini et al. (2022) claimed that the abstract's first presentation directly impacts the readers' perception of the overall caliber of the research study.

Nevertheless, expanding publications necessitates researchers to exercise discernment in their choices. An RA's suitability for publication in respectable journals can be determined based on the quality of its abstract. The gravity of abstract writing is equivalent to the entirety of the research article's content. This directly impacts the efficacy of composing an RA as the primary goal of the publication is to disseminate knowledge to as broad an audience as possible. As a result, authors aspire to publish their work in reputable and internationally recognized journals to reach a broader readership.

In addition, Suherdi et al. (2020) posited that foreign publications have the potential to significantly augment publication productivity rates and bolster the reputations of both individuals and institutions. This is because international publications serve as a crucial metric in the evaluation of global university rankings.

Humanities and Social Sciences disciplines are widely recognized for their extensive range of interests. Publishing a research paper within these fields is often considered an arduous undertaking. Thus, the substance of crafting a well-written abstract to convey one's ideas effectively becomes increasingly apparent. Based on Swales and Feak (2009), as stated in Qurratu'aini et al. (2022), it had been observed that this field of research is currently undergoing an exceptional increase in the volume of information.

This phenomenon can be attributed to the substantial number of research publications published annually. As the importance of RAs escalates, it becomes

increasingly impractical to thoroughly read every item to identify relevant research for additional investigations. Ergo authors often resort to a more selective approach, relying on reviewing and browsing the abstracts and keywords of articles.

Unlike the numerous works on RA published abstracts, there exists scant research with respect to the student social sciences and humanities abstracts in comparison with the published ones. At the same time, the significance of metadiscourse markers in written professional discourse has been even more prominently recognized. Despite this, their status remains a subject of uproar due to inadequate theoretical precision and empirical clarity. The qualitative value of contrasting research literature of unpublished abstracts with published works has, to a certain extent, been overlooked and under-researched. Therefore, there is a need to examine the alignment between research abstracts and the discourse field.

This study intended to investigate the published and unpublished abstracts of RAs in the humanities and social sciences. On top of that, it strived to analyze the metadiscoursal markers used in these abstracts, considering their implications for presentation and publication. The results of this study would contribute to enhancing the caliber of research studies conducted by scholars in the humanities and social sciences, specifically in relation to the composition of RA abstracts and the proficient utilization of metadiscoursal markers.

Theoretical Framework

English for Academic Purposes

English for Academic Purposes (EAP) is a scholarly discipline that seeks to examine the linguistic characteristics of academic English, as well as the structures and patterns found in academic texts and discourse. Its primary objectives are to comprehend the pedagogical approaches for teaching academic English and gain insights into the process of acquiring academic English in various educational settings, including formal instruction and informal disciplinary contexts (Basturkmen, 2021). English for Academic Purposes (EAP) can be described as a form of language education grounded in research. The field of EAP is characterized by its practical orientation, which helps to balance the potential inclination towards excessive theoretical focus. This inquiry focuses on analyzing linguistic characteristics found in academic English and the structures and patterns observed in academic texts and discourse. It also examines the various descriptions that have emerged regarding the nature of academic English.

Genre Analysis

Swales (1981) made notable contributions to the domain of research article analysis, specifically in move analysis, as Darabad (2016) cited. The author proposed a four-stage conceptual framework to organize the introductory section of research papers. The model consists of four main components. The first step entails the establishment of the field. The subsequent phase entails the compilation and analysis of extant research studies. The third phase involves the preparatory measures for the ongoing research undertaking. The primary emphasis of this lecture pertains to the ongoing research endeavor.

Hyland's (2000) model of research article (RA) abstracts has significantly influenced numerous investigations. The framework comprises five distinct components: Introduction,

Purpose, Method, Product, and Conclusion. The purposes of the movements and steps are indicated in the following:

Table 1: Hyland's Model of Research Article Abstracts (2000)

Moves	Functions
Introduction	Establishes the context of the paper and motivates the research
Purpose	Indicates purpose, outlines the aim behind the paper
Method	Provides information on design, procedures, data analysis, etc.
Product	Indicates results and the argument
Conclusion	Points to applications or wider implications and Interpretation scope of the paper

Note. Adapted from "A genre analysis of English and Iranian research articles abstracts in applied linguistics and mathematics", by B. Behnam & F. Golpour, 2014, *International Journal of Applied Linguistics & English Literature*, Vol. 3 No. 5 v.3n.5 p.173. Copyright 2014 by the Australian International Academic Centre, Australia

As opposed to the conventional IMRD (Introduction, Methods, Results, and Discussion) structure, this paradigm distinguishes the goal of the abstract from that of the introduction. The objective of the introduction is to provide justification for the study that will be carried out, but the purpose of the abstract serves a distinct function. Furthermore, the result move is substituted with the product move in this pattern. Nguyen et al. (2014) employed Swales' model for persuasive abstracts and Hyland's model for informative abstracts in their analysis of abstracts of both types.

On the other hand, Hyland (2005) developed a paradigm that includes two categories of metadiscourse: interactive and interactional measurements. Zali et al. (2021) elucidated that interactive metadiscourse assists writers in organizing propositional content to enhance its clarity. The text refers to the author's focus on the crowd and how he effectively communicates its potential knowledge, interests, analytical goals, and processing abilities.

Meanwhile, Interactional metadiscourse allows the author to provide commentary on their messages. Hyland refers to the present practice of authors adopting a written "voice" as the "author's demeanor" (Hyland, 2004, as cited in Zali et al., 2021). This includes using self-mentions, hedges, boosters, attitude, and engagement markers. The interactional metadiscourse engages the reader in the argument and showcases the writer's perspective on the subject matter.

Table 2: Hyland's Interpersonal Model of Metadiscourse (2005)

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

Note. Adapted from "The Role of Metadiscourse Markers in Comprehending Texts of Reading Comprehension Books Published in Iran and Oxford University Press", by S.J. Ebrahimi, 2018, *International Journal of Applied Linguistics & English Literature*, Vol. 7 No. 3 v.7n.3. Copyright 2018 by the Australian International Academic Centre, Australia

Conceptual Framework

Figure 1 constitutes a visual representation of the conceptual framework employed in this research. The paradigm illustrates both published and unpublished research abstracts. These abstracts would be subjected to analysis to compare the various moves or steps employed, ascertain the metadiscoursal resources employed to introduce each move or step, and identify the characteristics of these moves or steps. The frameworks utilized in this study would differentiate the purpose of the abstract from that of the introduction, as the abstract serves a distinct function from the introduction's typical function of justifying the research. After identifying the distinctions and patterns, this study would discuss the potential implications. The study's findings would provide valuable insights into the

effective composition of abstracts for successful article publishing, specifically for scholars in the Humanities and Social Sciences field.

Figure 1: Moves and Metadiscoursal Analyses of Abstracts of Published and Unpublished Humanities and Social Science Research
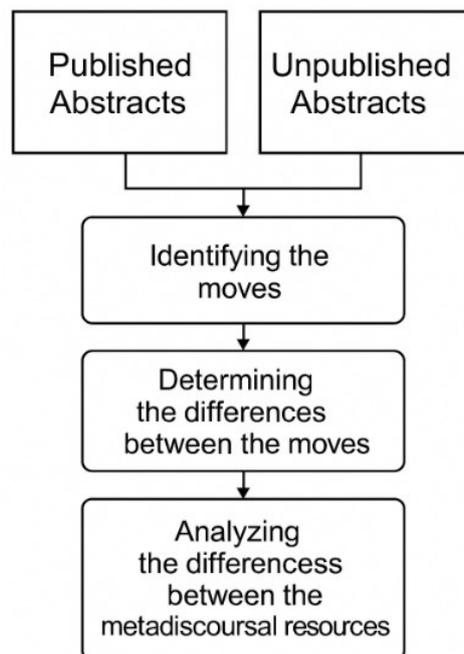
Research Questions

The goal of the present research was to compare Corpus-Based Discourse Analysis of Moves and Metadiscoursal Resources in Journal Abstracts in Humanities and Social Sciences Research. It also aimed at indicating the implications for research presentation and publication.

Specifically, the current study sought to answer the following research questions:
1. What are the moves in the abstracts of the published research?
2. What are the moves in the abstracts of the unpublished research?
3. What are the differences between the moves of the published and unpublished research?
4. What are the differences between the metadiscoursal resources of published and unpublished research?

Literature Review

In contemporary times, a significant proportion of prestigious journals and conferences employ the English language as the primary mode of communication for disseminating research findings. H.M. Sidek et al. (2016) argued that it is crucial, especially for scholars, to possess the ability to effectively communicate their findings in written form

according to their intended purpose. Thus, proficiency in English language writing is vital for academics. Abstract writing is one of the essential research writing skills that academics must possess. Prior studies (i.e., Fareed et al., 2016; Chin, 2016) have significantly enhanced our comprehension of writers' linguistic and rhetorical decisions when composing research abstracts in specific academic fields. Also, it has shed light on the rhetorical standards set by esteemed journals and conference gatekeepers within those disciplines.

The examination of abstracts as a vocabulary area is now a subject of concern in linguistics. Considering *"Abstracts"* in relation to other sections of the research article like *"Introduction"* also adds another perspective for examining abstracts. In this Information Age, the sheer volume of produced knowledge panics many scholars and specialists in each field, forcing them to filter the information within their domains. Thus, an often-arbitrary assessment based on the abstract is the deciding factor for why attending to the full text may or may not be considered worthwhile (Amnuai, 2019). As claimed by Huckin (2006; cited in Saidi & Talebi, 2021), abstracts may perform the functions of "screening devices" for potential readers. Therefore, academic writers, in addition to informing their readers about the contents of their articles, must persuade them with effective rhetorical strategies to compel them to read the entire article or essay.

Genre analysts and scholars in the English for Specific Purposes (ESP) and English for Academic Purposes (EAP) programs have studied the obstacles encountered by writers and the relevance of academic texts in compiling knowledge for a particular discipline. Such interdisciplinary studies in EAP and ESP focus on the language and rhetoric of notable academic genres. Benesch (2001) lists some of the theoretical frameworks that have profoundly impacted EAP's development throughout its three-decade lifespan. These frameworks draw from the parent disciplines of linguistics, applied linguistics, sociolinguistics, communicative language pedagogy, cross-curricular writing, educational theory, and genre analysis. According to Liu et al. (2023), proponents of EAP, such as Cai (2015, 2022), have contended that the significance of EAP stems from its direct connection to the intended function of English usage rather than its degree of linguistic complexity. In recent years, EAP has become widespread among non-English majors in most universities. The only function of this language is to cater for students pursuing higher education which is conducted in English.

When studying the Iranian Journal of English for Academic Purposes and the Journal of English for Academic Purposes, Saidi and Talebi (2021) analyzed the moves and move patterns used in the abstracts. They focused their research on applied linguistics. Samraj's (2002) model of the five moves: establishing a territory, establishing a niche, occupying a niche, presenting research, and summarizing were used to analyze the RA abstracts. The results showed that the textbooks contained standard rhetorical structures and that both corpuses had predominant actions of the aim, method, and product. The results are useful for designers of academic writing courses, instructional materials, and for teaching students. Essence includes helping novice researchers understand writing conventions so they can better integrate into scientific communities. The study can also help inform EAP training to encourage students to understand the differences and general features of RA

abstracts within their disciplines, particularly those studying EAP and its research and practice.

Moves

The communication purpose under consideration is determined by the distinctive nature of its role and the accompanying sub-strategies referred to as steps. The genre of abstracts comprises a distinct subgenre characterized by a rhetorical structure that aligns with the arrangement and substance of research article abstracts (Harisbaya, et al., 2021). The collection of the central concept is achieved using moves, which refers to a specific and delimited communicative action aimed at establishing "the primary communicative goal of the entire text" (Lorés, 2004, as cited in Qurratu'aini et al. (2022).

The utilization of Swales' (1990) move analysis has been extensively embraced by practitioners of EAP to examine the rhetorical composition of different academic genres. The specific focus of this practice is mostly within research articles genres. Rhetorical move analysis involves closely examining a text to identify and analyze the many rhetorical moves and steps employed within it. Rhetorical moves encompass a wide range of coherent functions accomplished through more specific, functionally defined phases (Yoon & Casal, 2020).

Nurcik et al. (2022) focused on a sample of 30 hard science abstracts considering that the authors were from both national and international backgrounds and published in the International Journal of Science and Technology (IJoST). The model proposed by Hyland (2000) was utilized as the analytical framework. The results indicated that both groups exhibited a comparable amount of emphasis on presenting the methodology and findings. Notably, there were discernible variations in the progression of the introduction and method sections. National authors regarded the ending move as optional, whereas the other moves in both groups were deemed traditional. International authors commonly regarded the topic generalization step as customary, although both groups saw the remaining elements in the introduction move as optional. They concluded that the disparities in the rhetorical structures employed by international and national authors are primarily evident in the sequencing of steps rather than the individual moves within them. Furthermore, while the utilization of voice remains consistent, the differentiation between the two sets of authors stems from the application of distinct tenses in each respective discourse.

Comparative analysis was done on the abstracts regarding English Language Teaching (ELT) done by Kaya and Yagiz in 2020. The EFL - English as a Foreign Language - scholars from Turkey and their Anglo-Saxon counterparts served as a case study for the research. How these two groups approached the abstractive rhetorical structure was the focus of their explorations. They had targeted the automated qualitative content analysis of the 390 selected abstracts which eloped from all available research to achieve the goal. The 390 abstracts' samples collected from different research papers were split evenly into two groups of 195. The abstracts were analyzed using the five movements model presented by Hyland in 2000. Alongside the use of descriptive statistics, the Chi-Square test was conducted to evaluate if there were any meaningful differences concerning the usage of moves between the two distinct groups of writers, and no meaningful difference was observed in the counts of movements between the two groups. Regardless, it should be

noted that Turkish authors usually tend to integrate three elements which are purpose, method and product into their abstracts, whereas foreign writers tend to include four such elements: purpose, method, product and conclusion.

As a genre-based approach, move analysis has been widely employed to examine the organization of RAs. Consequently, the analysis of moves and steps within RAs has become a prominent area of research for scholars. The findings from move analysis studies can have significant implications for developing academic writing courses and creating research writing and dissemination materials.

Metadiscoursal Resources

The primary aim of academic writing is to successfully express the desired message to the readers. Metadiscourse markers assist in helping academic authors grasp more completely the sociological aspects of the academic communities they belong to. Such markers help in construction of discourse, addressing the audience, and articulating the author's opinion (Capar & Turan, 2020).

Metadiscourse includes the linguistic devices writers use to organize their works, interact with the readers, and communicate their views and attitudes towards the writing and the audience (Hyland & Tse, 2004 as cited in Wei & Duan 2020). The study of metadiscourse offers an interesting path for studying academic writing. This is centered on how different scholars from diverse disciplinary and linguistic and cultural communities make use of metadiscoursal resources as rhetorical strategies to frame their research, defend their position, relate to the readers, and control their identity as writers.

Kirişçi and Duruk (2022) viewed abstracts as one of the sections of the paper that requires a unique approach; thus, metadiscursive strategies are use. The study investigated the use of interactive and interactional metadiscourse markers in the abstracts of scholarly works in Turkish and English. After conducting thorough research, they intend to employ the chi-square test to justify the differences that, upon initial observation, appear to be present. The results indicate that there are patterns of differences in the use of interactional and interactive metadiscourse markers in both languages. In framing the conclusion, the analysis showed that some of the frame markers which were code glosses, hedges, self-mentions, boosters, and mentions were used in a statistically significant way.

Bacang et al. (2019) investigated the application of rhetorical appeals, hedges, and boosters in the argumentative essays of ESL learners, paying attention to the gender issues related to the use of language. The findings in this study showed that male writers predominantly used logical appeals while female writers relied more on emotional appeals as they formulated their arguments. Moreover, the findings suggested that female ESL students employed hedging and boosting more often than male students. These language differences indicate that there is a gender dimension in the use of rhetorical strategies in ESL learners' argumentative essays; such findings are important for those studying the discourse analysis of pattern communication across genders in a second language environment.

Çapar and Turan (2020) examined how Turkish non-native speakers and native English speakers used metadiscourse markers in their research articles. The analysis included 100 RAs. Binomial tests indicate marked differences within interactional metadiscourse markers among groups. American academic writers had higher usage of IMMs as compared to Turkish academic writers in English research articles (ERAs). The amount of self-reference and the dependence of questions alternated in some subcategories under engagement indicators. This indicates that the use of IMMs could represent shifting cultural biases along with non-stable stylistic preferences, thus not requiring further schooling.

The literature examined in the review mentioned above highlights areas of research that require further investigation. There needs to be more studies to compare abstracts published in respected publications and those produced by students, specifically in terms of their moves and metadiscoursal resources at the same time. Thus, the primary objective of this study is to examine the utilization of moves and metadiscoursal resources in English research articles by academics in the humanities and social sciences.

Methodology

Fifty RA abstracts from the field of Humanities and Social Sciences particularly in the subcategories of Language and Linguistics formed the data of this study. Twenty-five of those were published in reputable journals. Specifically, the abstracts that were chosen should be by Filipino authors.

On the other hand, the other twenty-five were abstracts written by college/university students whose research studies weren't published in any local or international publications. A greater corpus size is often associated with more trustworthy and beneficial outcomes (Amnuai, 2017). Hence, a sample size of 50 abstracts is recommended to be deemed suitable and sufficiently large for conducting a rhetorical analysis in the current study. This sample size is expected to yield meaningful findings that may be generalized and applied to broader research contexts.

The appropriate sampling technique that was acquired in this research is one form of non-probability sampling which is purposive sampling. The researcher utilized, assessed, and chose the corpora based on the criteria mentioned above. In addition to its pertinence, the selection of this option was based on its expeditiousness, cost-effectiveness, feasibility, and accessibility.

An independent sample t-test was conducted to analyze the interactional metadiscoursal resources of published and unpublished research articles. In other words, the independent samples t-test was implemented to test if there was a statistically significant difference between the means of two non-related groups, which is to determine whether the difference, in fact, exists rather than is purely by coincidence (Gosset, 1908).

At the same time, a Welch's t test was applied to ascertain the variance between the actions of the published and unpublished research; and the difference between the

metadiscoursal (interactive) resources of the published and unpublished research. Welch's t test is concerned with the evaluation of difference among means of two separate groups when the assumption of variance homogeneity is typically assumed, due to the independent samples nature of the data. In this case, the split groups assumption has been violated (Welch, 1947).

The procedures outlined above were accomplished utilizing IBM SPSS Statistics Version 26; a software that provides quantitative analysis of complex data sets developed by researchers from diverse fields.

Regarding the data selection method, each journal must satisfy the requirements of representativeness, reputation, and accessibility to be considered. Thus, the journals namely *Philippine Journal of Linguistics*, *Asian EFL Journal, Asian ESP Journal* and *Open Access Journal of Education & Language Studies* (OAJELS) was chosen as the origins of the twenty-five published abstracts that are to be examined:

In contrast, the remaining twenty-five abstracts should be authored by higher education students, focusing on Humanities and Social Sciences, particularly those pursuing language-related degrees. The submission and defense of the research articles should be completed between the years 2020 and 2024, and they should not have been previously published in either local or foreign publications. The unpublished research abstracts will be sourced from the educational institutions in the Philippines namely: Adamson University, Arellano University, Centro Escolar University and San Beda University.

Dana Analysis

To facilitate the accessibility of each examined abstract, the 50 RA abstracts from both corpora were individually assigned distinct codes (PA1-PA25 for the published corpus and SA1-SA25 for the unpublished corpus). This study utilized the framework proposed by Hyland (2000). This was because his model comprises five major components starting from Intro, Purpose, Method, Product, and Conclusion. Most cited disciplines of social and clinical science use the frameworks outlined by Hyland (Amnuai, 2019). Moreover, the paradigm proposed by Hyland (2000) has been widely employed for the analysis of abstracts in several study investigations, including those conducted by Suntara and Usaha (2013), Saeeaw and Tangkiengsirisin (2014), Ebrahimi (2018), and Amnuai (2019).

According to Çapar and Turan (2020), the application processes data collected with the use of qualitative and mixed-method research. The review of RA abstracts to determine the incidence and patterns of moves stressed the focus on rhetorical function intensely during the move identification phase. For this step, the researcher performed a detailed hand analysis of each RA abstract and annotated them to prepare the data for processing. Given that contextual factors could influence the analysis of abstracts, it was necessary to do manual annotation.

Simultaneously, this investigation utilized the taxonomy defined by Hyland (2005), as presented in Table 4, to determine the metadiscoursal markers that the researchers employed in introducing the moves. According to Kirişçi and Duruk (2022), the taxonomy posits that metadiscourse can be classified into two distinct categories: interactive resources

and interactional resources. Hyland (2004), as mentioned in Özdemir & Longo (2014), asserts that using interactive resources enables writers to effectively guide readers in accurately comprehending the text through strategically managing information flow. Conversely, interactional resources allow the author to establish an authoritative and convincing persona through the dynamic interplay between the text and the reader. Ebrahimi (2018) claimed that the discussed model is considered the most comprehensive. It has undergone various changes, rigorous testing, and evaluation against multiple corpora before reaching its ultimate state. The manual recording and tabulation of the frequency and occurrence of metadiscourse markers in introducing the motions was be conducted.

Results and Discussion

Table 3: Moves in The Abstracts of The Published Research

| ID	Introduction		Purpose		Method		Product		Conclusion		Total		Mean
	F	%	F	%	F	%	F	%	F	%	F	%	
PA1	1	16.7	1	16.7	1	16.7	2	33.3	1	16.7	6	100.0	1.2
PA2	4	44.4	2	22.2	1	11.1	2	22.2	0	0.0	9	100.0	1.8
PA3	4	33.3	1	8.3	1	8.3	2	16.7	4	33.3	12	100.0	2.4
PA4	5	45.5	2	18.2	1	9.1	2	18.2	1	9.1	11	100.0	2.2
PA5	0	0.0	1	10.0	2	20.0	4	40.0	3	30.0	10	100.0	2.0
PA6	0	0.0	0	0.0	1	25.0	2	50.0	1	25.0	4	100.0	0.8
PA7	1	25.0	0	0.0	1	25.0	1	25.0	1	25.0	4	100.0	0.8
PA8	3	20.0	1	6.7	6	40.0	3	20.0	2	13.3	15	100.0	3.0
PA9	1	12.5	2	25.0	3	37.5	1	12.5	1	12.5	8	100.0	1.6
PA10	1	20.0	1	20.0	1	20.0	1	20.0	1	20.0	5	100.0	1.0
PA11	3	25.0	2	16.7	4	33.3	2	16.7	1	8.3	12	100.0	2.4
PA12	0	0.0	2	25.0	2	25.0	3	37.5	1	12.5	8	100.0	1.6
PA13	3	25.0	1	8.3	4	33.3	3	25.0	1	8.3	12	100.0	2.4
PA14	3	27.3	1	9.1	2	18.2	4	36.4	1	9.1	11	100.0	2.2
PA15	1	16.7	1	16.7	1	16.7	1	16.7	2	33.3	6	100.0	1.2
PA16	0	0.0	1	11.1	2	22.2	1	11.1	5	55.6	9	100.0	1.8
PA17	0	0.0	2	28.6	2	28.6	2	28.6	1	14.3	7	100.0	1.4
PA18	2	20.0	3	30.0	0	0.0	4	40.0	1	10.0	10	100.0	2.0
PA19	3	42.9	0	0.0	1	14.3	2	28.6	1	14.3	7	100.0	1.4
PA20	1	10.0	1	10.0	1	10.0	3	30.0	4	40.0	10	100.0	2.0
PA21	1	14.3	1	14.3	1	14.3	2	28.6	2	28.6	7	100.0	1.4
PA22	0	0.0	1	14.3	4	57.1	1	14.3	1	14.3	7	100.0	1.4
PA23	1	10.0	1	10.0	0	0.0	1	10.0	7	70.0	10	100.0	2.0
PA24	1	7.1	1	7.1	1	7.1	10	71.4	1	7.1	14	100.0	2.8
PA25	4	33.3	1	8.3	1	8.3	6	50.0	0	0.0	12	100.0	2.4
Mean	**1.7**	**18.0**	**1.2**	**13.5**	**1.8**	**20.0**	**2.6**	**28.1**	**1.8**	**20.4**	**9.0**	**100.0**	**1.8**

Table 3 showed that the Product component had the highest mean percentage of moves (28.1%), followed by the Conclusion (20.4%). Furthermore, the Method had 20.0% moves, 18.0% for the Introduction, and 13.5% for the Purpose. The overall mean frequency of moves in the abstracts of the published research was 9.0.

As seen in Figure 2, research abstracts of published research articles exhibit a greater overall prevalence of structural features regarding moves, particularly in the components "Product" and "Conclusions." The investigation showed that the most prominent components in academic abstracts were the Product and Conclusion, which accentuated their importance and subsequent influence. Following these, the Method move was equally important, whereas the Introduction and Purpose moves were less frequent. The Purpose move was, across the board, the least frequent among the abstracts analyzed.

Figure 2
Prevalence of Rhetorical Moves in Published Research Abstracts
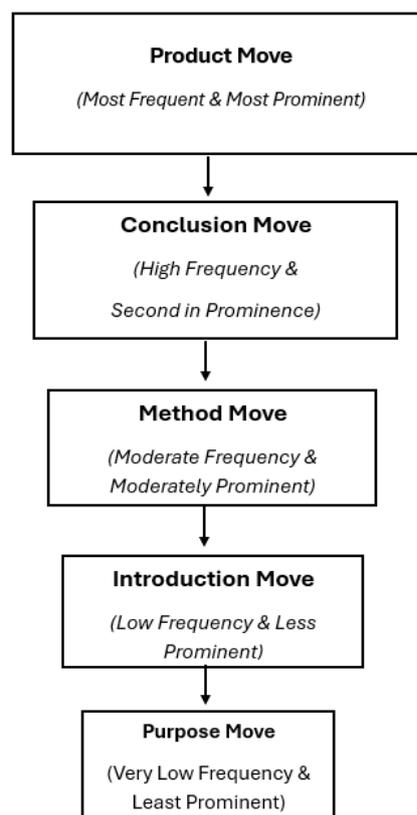
The prominence of the Product component affirmed results from recent studies which examined the increasing tendency towards detailing tends emphasizing research and its outcomes within abstracts. As an example, Li et al. (2024) presented the rationale of the RAAMove corpus, stating that arguments supporting the need for summarizing results in research abstracts should be highlighted. This corroborated with the current study's finding that the Product was the most frequently represented component.

Likewise, the advanced presence of the Conclusion move captured an emerging attention trend by the academic society to focus on the wider or more far-reaching impact stemming from the research outcomes.

The notability associated with the Method move in the analyses drew attention to the degree of research detailing, underscoring transparency within the research. According to Alyousef (2021), the Method was among the most prominent parts of the political sciences' blurbs, cited in 89.17% of the abstracts.

The data gathered from the current analysis suggested that the introduction portion in 18.0% of abstracts is focusing more on the findings rather than the details, which tend to make the abstract briefer. This is like Astria et al. (2023)'s work on Philippine E-Journals where the focus 'Introduction' was lower, and authors presented less background information and instead emphasized objective information about the research and its results.

Finally, the Purpose move's frequency being lower at 13.5% may suggest that the objectives of the research were implied instead of stated explicitly. This was somewhat aligned with other studies lately in which this move was termed optional or lesser in focus in other disciplines (Ren & Li, 2021).

Overall, the analysis indicated that the most emphasized components in published abstracts were the Product and Conclusion, further highlighting the importance of these outcomes and their impacts. Other recent studies have also provided insights relevant to these conclusions, enriching the discussion on the structure of abstracts in multiple fields. Such evidence broadens the knowledge regarding standards of academic writing, specifically regarding shifting practices on formatting authored abstracts to conform to the norms of the discipline.

Table 4
Moves in The Abstracts of The Unpublished Research

ID	Introduction F	Introduction %	Purpose F	Purpose %	Method F	Method %	Product F	Product %	Conclusion F	Conclusion %	Total F	Total %	Mean
SA1	1	14.3	1	14.3	1	14.3	1	14.3	3	42.9	7	100.0	1.4
SA2	1	16.7	1	16.7	1	16.7	2	33.3	1	16.7	6	100.0	1.2
SA3	1	12.5	2	25.0	2	25.0	1	12.5	2	25.0	8	100.0	1.6
SA4	1	14.3	1	14.3	1	14.3	3	42.9	1	14.3	7	100.0	1.4
SA5	1	16.7	1	16.7	1	16.7	2	33.3	1	16.7	6	100.0	1.2
SA6	0	0.0	1	20.0	1	20.0	2	40.0	1	20.0	5	100.0	1.0
SA7	2	28.6	1	14.3	1	14.3	1	14.3	2	28.6	7	100.0	1.4
SA8	1	14.3	1	14.3	1	14.3	2	28.6	2	28.6	7	100.0	1.4
SA9	0	0.0	1	16.7	1	16.7	2	33.3	2	33.3	6	100.0	1.2
SA10	0	0.0	1	20.0	1	20.0	1	20.0	2	40.0	5	100.0	1.0
SA11	0	0.0	1	25.0	1	25.0	1	25.0	1	25.0	4	100.0	0.8

SA12	1	16.7	1	16.7	1	16.7	2	33.3	1	16.7	6	100.0	1.2
SA13	0	0.0	1	25.0	1	25.0	1	25.0	1	25.0	4	100.0	0.8
SA14	1	12.5	1	12.5	0	0.0	2	25.0	4	50.0	8	100.0	1.6
SA15	0	0.0	1	20.0	1	20.0	2	40.0	1	20.0	5	100.0	1.0
SA16	2	25.0	1	12.5	1	12.5	2	25.0	2	25.0	8	100.0	1.6
SA17	1	16.7	1	16.7	1	16.7	1	16.7	2	33.3	6	100.0	1.2
SA18	0	0.0	1	20.0	1	20.0	1	20.0	2	40.0	5	100.0	1.0
SA19	0	0.0	1	20.0	1	20.0	1	20.0	2	40.0	5	100.0	1.0
SA20	2	28.6	1	14.3	1	14.3	2	28.6	1	14.3	7	100.0	1.4
SA21	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0	4	100.0	0.8
SA22	2	50.0	1	25.0	1	25.0	0	0.0	0	0.0	4	100.0	0.8
SA23	1	12.5	1	12.5	1	12.5	3	37.5	2	25.0	8	100.0	1.6
SA24	2	25.0	1	12.5	1	12.5	2	25.0	2	25.0	8	100.0	1.6
SA25	1	14.3	1	14.3	1	14.3	2	28.6	2	28.6	7	100.0	1.4
Mean	**0.8**	**12.7**	**1.1**	**19.8**	**1.0**	**17.3**	**1.6**	**24.9**	**1.6**	**25.4**	**6.1**	**100.0**	**1.2**

The moves in the abstracts of the unpublished research were evaluated using descriptive statistics such as frequency, percentage, and mean, as shown in Table 4. The moves were categorized into five components, namely, introduction, purpose, method, product, and conclusion. Statistics showed that the Conclusion component had the highest mean percentage of moves (25.4%), followed by the Product (24.9%). Furthermore, the Purpose had 19.8% moves, Method accounted for 17.3%, while Introduction had 12.7%. The overall mean frequency of moves in the abstracts of the unpublished research was 6.1.

Based on Figure 3, the primary emphasis of unpublished RA abstracts was noticeably directed towards the Conclusion. The focus then shifted towards The Product. For Purpose, attention was drawn notably, while Method and Introduction drew attention to a lesser extent, with Introduction being the least active in these two moves.

Figure 3
Prevalence of Rhetorical Moves in Unpublished Research Abstracts
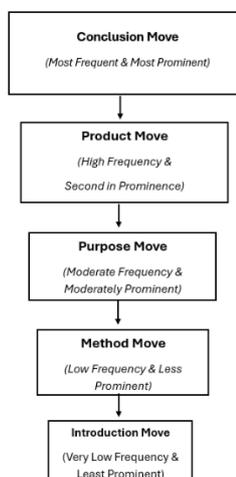
The significance of the Conclusion sliced in unpublished research abstracts (25.4%) is within the parameters of the latest patterns associated with writing in the academy. Conclusions, as argued, are central to encapsulating the key outcomes and articulating the relevance within the context of the research domain. Accompanying this, a study by Zhang et al. (2023) focusing on social science research articles noted that the Conclusion step performs important functions in describing the contributions of the research to the discipline, more so in the limited context of an abstract (Zhang et al., 2023).

The shift termed as "Product move", which accounted for 24.9% of the total moves, indicates growing concern regarding the outcome or product of the research. Numerous studies have pointed out that academic abstracts focus more on results-laden summaries to meet the rhythm of research busy readers who seek results and not methodologies or other contextual information (Roe, 2022). The Purpose move, accounting for 19.8% of the total moves, is important because it helps contextualize the research by defining its goals. This part often appears as the first move in an abstract, aiming to guide the audience to the primary focus of the study (Wang & Liu, 2024). The Method section made up 17.3% of the movements, which is still quite an impressive proportion of the abstract despite being smaller than the other components. An extensive consideration of Methods is characteristic of those disciplines in which the research design, steps taken, and data gathering processes are vital to the validity and reproducibility of the study (Moore & Turner, 2022). Lastly, the Introduction move encompassed the least representation at only 12.7% of the total moves in the abstracts of unpublished research. It appears that this indicates a more streamlined approach to abstract writing in unpublished research, where authors seek to conserve space and prioritize the results, significance, and the overarching goals of their study (Liu & Zhang, 2021).

Table 5
Difference Between the Moves of The Published and Unpublished Research

Group	Mean	SD	Welch *t*	*p*-value	Mean Diff	Interpretation
Unpublished	1.224	.279	-4.456	< .001	-.584	Significant
Published	1.808	.593				

Note. Independent: Research Publication

Dependent: Moves
The results in Table 5 suggested a meaningful difference between the difference between the two groups was found to be statistically significant (t = -4.456, p < .001), as the p-value is lower than the threshold of 0.05. The unpublished research lags the published research by a considerable margin, which is evident given that the published research moves significantly more, as illustrated by the mean difference (MD = -.584).

This finding indicated that there was a significant difference between the moves of the published and unpublished research.

The notable differences between the moves of published versus unpublished research indicates possible structural differences in the two types of abstracts, which may hint at different phases of the research process. The increase in moves for published research might stem from the additional polish gained from the peer review and publication processes. In alignment with this, more recent studies have found that published abstracts are better organized and more concise, which seems to indicate heightened focus on discipline-specific publishing. This is also supported by Thompson and Turner (2021), who argued that published research abstracts tend to be more polished because they include all rhetorical moves needed to comply with the corresponding peer-reviewed journal's standard operating procedures.

Published research abstracts are often the subject of scrutiny by peers, making published research abstracts sharply critiqued prior to release, resulting in the inclusion of more organized and refined components (Huang et al., 2022). This thorough critique might be the reason why critical elements such as the Product, Conclusion, and Method are clearly and thoroughly encapsulated, which may explain why published research abstracts usually have an overwhelming number of moves.

The mean difference MD = -0.584 (p < 0.005) indicates, in some capacity, that unpublished research abstracts are either still a work in progress or in earlier stages of development, where refinement has not yet been achieved as seen in subsequent published versions. Consequently, unpublished abstracts are likely to have lesser moves including the Product and Conclusion which are declarative and statement-based in nature regarding the outcomes or findings of the research (Huang & Zhang, 2023).

The notable difference in the number of moves in the published and unpublished research abstracts underscores the developmental aspect of writing across the levels of academia. Published research abstracts, for instance, possess intricate and polished rhetorical moves which, unlike earlier in drafts, are final and peer reviewed. On the other hand, unpublished research abstracts showcase fewer moves as they seem to illustrate earlier iterations in the process of research. This observation aids in understanding how the logic order of the move's abstracts, also referred to as the abstract structure order, changes as research unfolds from rough drafts to polished documents intended for publication. Furthermore, it highlights the need of abstract writing at all levels of scholarly publishing, to of course align with rigorous standards of academic publishing.

Table 6
Metadiscoursal (Interactive) Resources in The Abstracts of The Published Research

ID	Transitions		Frame Markers		Endophoric Markers		Evidential		Code Glosses		Total		Mean
	F	%	F	%	F	%	F	%	F	%	F	%	
P1	2	33.3	0	0.0	2	33.3	2	33.3	0	0.0	6	100.0	1.2
P2	4	23.5	1	5.9	8	47.1	4	23.5	0	0.0	17	100.0	3.4
P3	3	23.1	1	7.7	7	53.8	2	15.4	0	0.0	13	100.0	2.6
P4	4	18.2	4	18.2	10	45.5	2	9.1	2	9.1	22	100.0	4.4

P5	3	20.0	2	13.3	6	40.0	4	26.7	0	0.0	15	100.0	3.0
P6	2	15.4	2	15.4	9	69.2	0	0.0	0	0.0	13	100.0	2.6
P7	1	11.1	2	22.2	3	33.3	1	11.1	2	22.2	9	100.0	1.8
P8	1	4.5	5	22.7	12	54.5	2	9.1	2	9.1	22	100.0	4.4
P9	6	33.3	5	27.8	5	27.8	2	11.1	0	0.0	18	100.0	3.6
P10	0	0.0	3	75.0	0	0.0	0	0.0	1	25.0	4	100.0	0.8
P11	3	21.4	6	42.9	3	21.4	2	14.3	0	0.0	14	100.0	2.8
P12	1	20.0	4	80.0	0	0.0	0	0.0	0	0.0	5	100.0	1.0
P13	4	33.3	6	50.0	0	0.0	0	0.0	2	16.7	12	100.0	2.4
P14	2	25.0	6	75.0	0	0.0	0	0.0	0	0.0	8	100.0	1.6
P15	1	6.3	7	43.8	0	0.0	1	6.3	7	43.8	16	100.0	3.2
P16	2	28.6	5	71.4	0	0.0	0	0.0	0	0.0	7	100.0	1.4
P17	3	42.9	3	42.9	0	0.0	0	0.0	1	14.3	7	100.0	1.4
P18	1	10.0	5	50.0	0	0.0	2	20.0	2	20.0	10	100.0	2.0
P19	3	25.0	4	33.3	0	0.0	3	25.0	2	16.7	12	100.0	2.4
P20	1	14.3	5	71.4	0	0.0	0	0.0	1	14.3	7	100.0	1.4
P21	0	0.0	3	75.0	0	0.0	0	0.0	1	25.0	4	100.0	0.8
P22	2	33.3	4	66.7	0	0.0	0	0.0	0	0.0	6	100.0	1.2
P23	7	43.8	3	18.8	0	0.0	0	0.0	6	37.5	16	100.0	3.2
P24	4	21.1	4	21.1	0	0.0	2	10.5	9	47.4	19	100.0	3.8
P25	5	21.7	4	17.4	0	0.0	0	0.0	14	60.9	23	100.0	4.6
Mean	**2.6**	**21.3**	**3.8**	**30.8**	**2.6**	**21.3**	**1.2**	**9.5**	**2.1**	**17.0**	**12.2**	**100.0**	**2.4**

The metadiscoursal (interactive) resources in the abstracts of the published research were analyzed using descriptive statistics such as frequency, percentage, and mean, as shown in Table 6. The resources are categorized into five components, namely, transitions, frame markers, endophoric markers, evidential, and code glosses. Statistics show that the Frame Markers component had the highest mean percentage of resources (30.8%), followed by the Transitions and Endophoric Markers (both at 21.3%). Furthermore, Code Glosses accounted for 17.0%, while Evidential had 9.5%. The overall mean frequency of interactive resources in the abstracts of the published research was 12.2.

The high proportion of Frame Markers usage (30.8%) in the abstracts of published research showed their importance in academic writing. The significance of Transitions (21.3%) and Endophoric Markers (21.3%) also highlighted the level of accent placed on cohesion and clarity in academic texts. The noted abundance of Code glosses (17.0%) indicated that the abstract must focus on clarity and accessibility. These markers are of great significance in cross-disciplinary research because they expand the text's readership to non-specialists in study (Adams, 2024). To explain why there is greater frequency of code glosses in research articles, Adams (2024) argues that researchers are increasingly trying to make their work comprehensible across diverse academic audiences.

The Evidentials reference attribution subcategory constituted a relatively lower frequency (9.5%) in the abstracts of published research. This suggests that while citing

sources is fundamental in academic writing, the abstracts seem to pay more attention towards the outcome and the presentation of the research.

The results of this analysis show that Frame Markers, Transitions, and Endophoric Markers are the most frequent metadiscoursal features utilized in the abstracts of published research. They are used to organize the text, direct the reader through its various parts, and achieve coherence. The results also indicate that research abstracts are predominantly outcome focused and do not make much reference to external sources, which is reflected in the low use of Evidentials. Such results are characteristic of academic writing which emphasize quality precision, elaborate logical ordering, and inter-relationships to satisfy the demands of scholarly publishers.

Table 7
Metadiscoursal (Interactive) Resources in The Abstracts of The Unpublished Research

ID	Transitions		Frame Markers		Endophoric Markers		Evidential		Code Glosses		Total		Mean
	F	%	F	%	F	%	F	%	F	%	F	%	
S1	4	28.6	6	42.9	0	0.0	0	0.0	4	28.6	14	100.0	2.8
S2	2	28.6	4	57.1	0	0.0	0	0.0	1	14.3	7	100.0	1.4
S3	5	50.0	5	50.0	0	0.0	0	0.0	0	0.0	10	100.0	2.0
S4	3	33.3	6	66.7	0	0.0	0	0.0	0	0.0	9	100.0	1.8
S5	2	25.0	6	75.0	0	0.0	0	0.0	0	0.0	8	100.0	1.6
S6	0	0.0	5	62.5	0	0.0	0	0.0	3	37.5	8	100.0	1.6
S7	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	4	100.0	0.8
S8	2	28.6	5	71.4	0	0.0	0	0.0	0	0.0	7	100.0	1.4
S9	2	18.2	5	45.5	0	0.0	0	0.0	4	36.4	11	100.0	2.2
S10	1	16.7	5	83.3	0	0.0	0	0.0	0	0.0	6	100.0	1.2
S11	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	4	100.0	0.8
S12	1	16.7	5	83.3	0	0.0	0	0.0	0	0.0	6	100.0	1.2
S13	0	0.0	4	80.0	0	0.0	0	0.0	1	20.0	5	100.0	1.0
S14	4	50.0	4	50.0	0	0.0	0	0.0	0	0.0	8	100.0	1.6
S15	1	16.7	5	83.3	0	0.0	0	0.0	0	0.0	6	100.0	1.2
S16	2	28.6	5	71.4	0	0.0	0	0.0	0	0.0	7	100.0	1.4
S17	4	44.4	5	55.6	0	0.0	0	0.0	0	0.0	9	100.0	1.8
S18	0	0.0	5	83.3	0	0.0	0	0.0	1	16.7	6	100.0	1.2
S19	2	22.2	5	55.6	0	0.0	0	0.0	2	22.2	9	100.0	1.8
S20	3	37.5	5	62.5	0	0.0	0	0.0	0	0.0	8	100.0	1.6
S21	1	20.0	4	80.0	0	0.0	0	0.0	0	0.0	5	100.0	1.0
S22	2	40.0	3	60.0	0	0.0	0	0.0	0	0.0	5	100.0	1.0
S23	1	20.0	4	80.0	0	0.0	0	0.0	0	0.0	5	100.0	1.0
S24	2	28.6	5	71.4	0	0.0	0	0.0	0	0.0	7	100.0	1.4
S25	4	44.4	5	55.6	0	0.0	0	0.0	0	0.0	9	100.0	1.8
Mean	**1.9**	**23.9**	**4.8**	**69.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.6**	**7.0**	**7.3**	**100.0**	**1.5**

The metadiscoursal (interactive) resources in the abstracts of the unpublished research were examined using descriptive statistics such as frequency, percentage, and mean, as shown in Table 7. The resources were categorized into five components, namely, transitions, frame markers, endophoric markers, evidential, and code glosses.

Statistics showed that the Frame Markers component had the highest mean percentage of resources (69.1%), followed by Transitions (23.9%). Furthermore, Code Glosses accounted for 7.0%, while Endophoric Markers and Evidential had 0.0%. The overall mean frequency of interactive resources in the abstracts of the unpublished research was 7.3.

It is quite striking that Frame Markers represented 69.1% of the total markers detected in the abstracts of unpublished research. The level of prominence reserved for frame markers also includes first and foremost and in summary as vital constituents of the academic discourse. This is consistent with findings by Harris and Rees (2022), which suggest that initial drafts of academic work tend to put more effort into structuring the content as a narrative that leads the reader through the argument's development. The value reserved for Transitions, on the other hand, at 23.9% emphasizes the importance of the logical relationships between ideas incorporated in the unpublished research abstracts even in the draft versions of the texts. Jameson and Williams (2023) claim transitions perform a very important role in coherence, especially in incomplete research, where much clarity is required in the presenting of the findings to create a basis for deeper examination.

It is particularly noteworthy that Code Glosses appeared in a lower proportion (7.0%) for unpublished abstracts. Their relatively low frequency in unpublished abstracts suggests that researchers might still be trying to simplify and make their writing more precise. This supports the argument made by Dempsey (2024) that claimed the employment of code glosses increases as research writing nears publication because scholars want to add precision and clarity for a broader audience, which is the hallmark of publication-ready work.

No Endophoric Markers and Evidentials in unpublished abstracts is particularly striking. The absence of these markers may mean that unpublished research abstracts are mostly intended to showcase the research in its semi-finished stage without substantial references to other parts or available literature. \

Findings indicate that unpublished research abstracts place greater importance on Frame Markers and Transitions, suggesting concentration on the logical hierarchy and interconnections of the ideas. The lack of Endophoric Markers and Evidentials suggests that these abstracts are at an earlier stage of development where the emphasis is on overall presentation of the research rather than citation and cross-referencing. These observations underscore the iterative processes associated with academic writing—where early drafts prioritize clarity and self-referential logic only to be supplemented later with sophisticated citation frameworks and external corroboration.

Table 8

Difference Between the Metadiscoursal (Interactive) Resources of The Published and Unpublished Research

Group	Mean	SD	Welch t	p-value	Mean Diff	Interpretation
Unpublished	1.464	.464	-3.859	.001	-.976	Significant
Published	2.440	1.176				

Note. Independent: Research Publication

Dependent: Metadiscoursal (Interactive) Resources

The disparity between the meta-discoursal (interactive) elements in published and unpublished research was assessed with Welch's t-test, a modification developed because the assumption of equal variances was not tenable (see Test of Assumptions).

Results claimed that the difference between the two abstracts was found to be statistically significant (t = -3.859, p = .001), as the p-value is less than the significance level of 0.05. The mean difference (MD = -.976) shows that the published research has significantly higher metadiscoursal (interactive) resources, compared to unpublished research.

This finding suggests that there is a significant difference between the metadiscoursal (interactive) resources of the published and unpublished research.

The difference metadiscoursally between published and unpublished works emphasizes the need to engage with readers and communicate clearly in published works. Metadiscourse, specifically interactive resources, is important in academic writing because it employs techniques that can capture the readers' attention and lead them through the text while emerging in the text's argument. The published research which was measured in this case and had a greater occurrence of these resources confirms the theory that suggests that more finalized or peer-reviewed research tends to be more coherent and reader oriented (Thompson & Mock, 2022).

The help of these interactive resources is also provided using transitions, frame markers, and code glosses ensuring that the argument and research is presented logically and clearly.

On the contrary, unpublished research abstracts which are at an earlier stage of the writing process tend to have a lower level of development regarding metadiscoursal elements. The employment of interactive elements within the text is less prevalent because authors are still in the process of constructing their arguments and research. This lack of metadiscoursal markers is indicative of an author's fixation on the content instead of the construction of the argument presentation that is easy to navigate.

The mean difference (MD = -0.976) between the two groups indicates that the published research abstracts contain approximately one additional interactive metadiscoursal resource per instance in comparison to the unpublished abstracts. This difference shows that there is increased frequency of use of metadiscoursal resources toward the final steps of the research process. Such resources are essential in aiding comprehension and are fundamental to published work because understanding the text is imperative for effective communication to a wider audience. This demonstrates that as research attains greater maturity, the level of engagement through sophisticated metadiscourse increases proportionally.

Employing interactive metadiscourse in the context of academic abstracts is necessary for providing logical signposts and ensuring the readability of the argument presented. This concept was observed for the first time in a study which concluded that the clarity and accessibility of the abstract improves as the research approaches publication, indicating that advanced preparatory work is done towards publication. Jiang et al. (2022) argued that there are more metadiscoursal markers in the reader-focused sections of the text, especially towards the final version, indicating that academic texts lose interactivity and become more structurally metadiscoursal in nature with each draft and are more likely to facilitate reader engagement.

This investigation found a notable gap in the number of metadiscoursal resources employed in published and unpublished research abstracts. The interactive resources, which have previously been noted as contributing to the engagement of the reader in the text, were much more common in published work. This is indicative of the greater attention placed during the revision stages of academic writing, not only regarding content but also text organization and reader accessibility. Clearly, the increasing application of metadiscoursal devices in the finalized versions of academic texts underscores their significance in building comprehension and effective communication.

Table 9
Metadiscoursal (Interactional) Resources in The Abstracts of The Published Research

ID	Hedges		Boosters		Attitude Markers		Engagement Markers		Self-Mentions		Total		Mean
	F	%	F	%	F	%	F	%	F	%	F	%	
P1	1	16.7	0	0.0	3	50.0	1	16.7	1	16.7	6	100.0	1.2
P2	5	50.0	0	0.0	3	30.0	0	0.0	2	20.0	10	100.0	2.0
P3	4	28.6	2	14.3	6	42.9	0	0.0	2	14.3	14	100.0	2.8
P4	5	33.3	2	13.3	5	33.3	0	0.0	3	20.0	15	100.0	3.0
P5	1	33.3	0	0.0	2	66.7	0	0.0	0	0.0	3	100.0	0.6
P6	2	28.6	1	14.3	1	14.3	0	0.0	3	42.9	7	100.0	1.4
P7	1	20.0	1	20.0	1	20.0	0	0.0	2	40.0	5	100.0	1.0
P8	4	36.4	1	9.1	3	27.3	0	0.0	3	27.3	11	100.0	2.2
P9	1	14.3	1	14.3	2	28.6	0	0.0	3	42.9	7	100.0	1.4
P10	0	0.0	0	0.0	2	40.0	1	20.0	2	40.0	5	100.0	1.0

P11	2	25.0	2	25.0	2	25.0	1	12.5	1	12.5	8	100.0	1.6
P12	1	20.0	1	20.0	0	0.0	0	0.0	3	60.0	5	100.0	1.0
P13	2	16.7	3	25.0	5	41.7	0	0.0	2	16.7	12	100.0	2.4
P14	1	9.1	2	18.2	6	54.5	0	0.0	2	18.2	11	100.0	2.2
P15	1	9.1	3	27.3	5	45.5	0	0.0	2	18.2	11	100.0	2.2
P16	0	0.0	5	45.5	2	18.2	2	18.2	2	18.2	11	100.0	2.2
P17	1	14.3	3	42.9	1	14.3	0	0.0	2	28.6	7	100.0	1.4
P18	2	20.0	3	30.0	2	20.0	1	10.0	2	20.0	10	100.0	2.0
P19	2	25.0	2	25.0	2	25.0	1	12.5	1	12.5	8	100.0	1.6
P20	4	25.0	4	25.0	3	18.8	1	6.3	4	25.0	16	100.0	3.2
P21	1	9.1	2	18.2	5	45.5	2	18.2	1	9.1	11	100.0	2.2
P22	2	28.6	1	14.3	1	14.3	1	14.3	2	28.6	7	100.0	1.4
P23	2	11.8	3	17.6	2	11.8	7	41.2	3	17.6	17	100.0	3.4
P24	4	30.8	3	23.1	3	23.1	1	7.7	2	15.4	13	100.0	2.6
P25	3	14.3	6	28.6	1	4.8	10	47.6	1	4.8	21	100.0	4.2
Mean	**2.1**	**20.8**	**2.0**	**18.8**	**2.7**	**28.6**	**1.2**	**9.0**	**2.0**	**22.8**	**10.0**	**100.0**	**2.0**

Statistics in Table 9 showed that the Attitude Markers component had the highest mean percentage of resources (28.6%), followed by Self-Mentions (22.8%). Furthermore, Hedges accounted for 20.8%, Boosters for 18.8%, while Engagement Markers had 9.0%. The overall mean frequency of interactional resources in the abstracts of the published research was 10.0.

The results indicated that Attitude Markers are the primary metadiscursive interactional resources employed in published research abstracts. The high frequency of this metadiscourse might be to ensure sufficient emphasis is placed on the researcher's position in relation to the claims, which helps mitigate the reader's perception and expectations (Thompson & Mock, 2023).

The second most frequent category, self-mentions, pertains to the use of the pronoun "I" or "we," which directly identifies the author(s). Self-mention demonstrates the author's rhetorical role and indicates a direct engagement with the audience, thus affirming the writer's presence and active role in the research. The prevalence of self-mentions in published research could reflect the growing trend towards authorial visibility in academic discourse (Jiang et al., 2022).

Hedges and boosters came in third and fourth, respectively, as they perform different but exceptionally helpful functions in academic writing. Hedges soften claims to express some form of doubt or caution (Vassallo, 2021), while boosters highlight the writer's support or belief in the findings made (Jiang et al., 2022). The use of both helps to balance the presentation of knowledge by accounting for complexity and uncertainty while also asserting authority, where needed.

The rather low percentage of Engagement Markers (9.0%) found in published research abstracts indicates that interactional metadiscourse meant to invite readers is less

emphasized in scholarly writing. As Thompson & Mock (2023) note, engagement markers inviting the reader into the discourse are generally less common in formal academic genres like research article abstracts.

The overall mean frequency of interactional resources in the abstracts of published research (10.0) suggests that there is some presence of interactional metadiscourse, but it is not particularly high. This could be a result of the succinct nature of most abstracts which aim to communicate central findings quickly and efficiently. Still, as Kyland (2022) argues, the use of these interactional resources, no matter how minimal, contributes significantly to shaping the tone, stance, and authorial voice in academic discourse.

As previously noted, the study indicates Attitude Markers and Self Mentions as the two most common interactional metadiscourse resources in published research abstracts. Such resources help balance the author's position and his or her role in carrying out the research, which is important for credibility and engaging the scholarly audience. The comparatively lower occurrence of Engagement Markers implies that the focus of academic abstracts is more on the information rather than direct engagement with the readers. In general, the results align with the premise that the interactional elements in published research abstracts serve to position the research in a commanding yet approachable manner within the academic discourse.

Table 10
Metadiscoursal (Interactional) Resources in The Abstracts of The Unpublished Research

ID	Hedges		Boosters		Attitude Markers		Engagement Markers		Self-Mentions		Total		Mean
	F	%	F	%	F	%	F	%	F	%	F	%	
S1	1	8.3	6	50.0	2	16.7	2	16.7	1	8.3	12	100.0	2.4
S2	1	10.0	3	30.0	2	20.0	2	20.0	2	20.0	10	100.0	2.0
S3	1	9.1	3	27.3	2	18.2	3	27.3	2	18.2	11	100.0	2.2
S4	1	11.1	2	22.2	2	22.2	1	11.1	3	33.3	9	100.0	1.8
S5	2	15.4	4	30.8	3	23.1	0	0.0	4	30.8	13	100.0	2.6
S6	1	7.7	3	23.1	2	15.4	3	23.1	4	30.8	13	100.0	2.6
S7	1	9.1	3	27.3	2	18.2	2	18.2	3	27.3	11	100.0	2.2
S8	1	9.1	3	27.3	1	9.1	2	18.2	4	36.4	11	100.0	2.2
S9	2	15.4	3	23.1	3	23.1	1	7.7	4	30.8	13	100.0	2.6
S10	0	0.0	2	20.0	2	20.0	2	20.0	4	40.0	10	100.0	2.0
S11	1	9.1	2	18.2	3	27.3	2	18.2	3	27.3	11	100.0	2.2
S12	1	7.7	3	23.1	3	23.1	1	7.7	5	38.5	13	100.0	2.6
S13	1	11.1	3	33.3	1	11.1	1	11.1	3	33.3	9	100.0	1.8
S14	2	10.5	4	21.1	2	10.5	7	36.8	4	21.1	19	100.0	3.8
S15	0	0.0	3	27.3	3	27.3	1	9.1	4	36.4	11	100.0	2.2
S16	0	0.0	5	33.3	2	13.3	4	26.7	4	26.7	15	100.0	3.0
S17	2	14.3	3	21.4	4	28.6	1	7.1	4	28.6	14	100.0	2.8
S18	0	0.0	4	40.0	1	10.0	1	10.0	4	40.0	10	100.0	2.0

S19	2	10.5	2	10.5	2	10.5	8	42.1	5	26.3	19	100.0	3.8
S20	2	9.1	4	18.2	3	13.6	8	36.4	5	22.7	22	100.0	4.4
S21	1	11.1	0	0.0	2	22.2	3	33.3	3	33.3	9	100.0	1.8
S22	0	0.0	3	37.5	2	25.0	1	12.5	2	25.0	8	100.0	1.6
S23	1	6.3	4	25.0	3	18.8	4	25.0	4	25.0	16	100.0	3.2
S24	1	6.3	4	25.0	4	25.0	3	18.8	4	25.0	16	100.0	3.2
S25	0	0.0	3	25.0	3	25.0	2	16.7	4	33.3	12	100.0	2.4
Mean	**1.0**	**7.6**	**3.2**	**25.6**	**2.4**	**19.1**	**2.6**	**18.9**	**3.6**	**28.7**	**12.7**	**100.0**	**2.5**

The metadiscoursal (interactional) resources in the abstracts of the unpublished research were analyzed using descriptive statistics such as frequency, percentage, and mean, as shown in Table 10. The resources are categorized into five components, namely, hedges, boosters, attitude markers, engagement markers, and self-mentions.

Statistics show that the Self-Mentions component had the highest mean percentage of resources (28.7%), followed by Boosters (25.6%). Furthermore, Attitude Markers accounted for 19.1%, Engagement Markers for 18.9%, while Hedges had 7.6%. The overall mean frequency of interactional resources in the abstracts of the unpublished research was 12.7.

The findings suggest that Self-Mentions constitute the greatest frequency of interactional resources in the abstracts of unpublished research. This is in line with Biber et al.'s findings (2022) that self-mentions abound in early drafts of academic texts due to the authors asserting their identity and role in the academic endeavor.

Boosters stand out as the second most common reasoning the author used to strengthen the claim in the research. The prominence of boosters shows that the authors of unpublished research abstracts may want to draw attention to the importance or surety of their findings. This supports Jiang and Yang's (2021) observation that boosters are used in draft stages of the research to express assertiveness and confidence in preliminary results, contrary to peer review or formal validation.

The occurrence of Attitude Markers (19.1%) is relatively high, suggesting that the author was trying to evaluate the research process or the results. Liu and Zhou (2023) noted that attitude markers, in unpublished research, are used to communicate the researcher's personal judgment about the research results.

The amount of Engagement Markers (18.9%) points to attempts, however minimal, at direct involvement of the readers in the research activities. Although not to the level of self-mentions and boosters, the degree to which engagement markers are used suggests that the authors intended to reach out actively to their audience, even in unpublished draft phase. As Smith and Thompson (2021) posited, engagement markers take on greater significance in texts that shift from drafts to finished versions, and in unpublished works, their frequency may denote communicative exploration.

Hedges had the lowest frequency (7.6%) in the abstracts of unpublished research, where authors tended to show less uncertainty or caution. Liu and Li (2024) pointed out that while hedges are vital in expressing caution in one's writing, they tend to be over neglected in unpublished pieces, likely because authors strive to assert their findings during the early stages of the writing process.

The average interactions resource frequency of 12.7 in unpublished research abstracts suggests that such resources are fundamental to the author's position within the text's dynamics. Conceptually, even in the first drafts, the presence of interactional metadiscourse helps outline the research agenda and frame the author's identity regarding their argument and authority on the subject matter.

To conclude, Self-Mentions and Boosters are the most used interactional resources in unpublished research abstracts which shows the author's attempts to project their identity and emphasize the importance of the results. Attitude Markers and Engagement Markers also aid the inclusion of the reader as well as situating the research within the scholarly discourse community. The use of Hedges among the authors of these abstracts is limited, suggesting more confidence during the preliminary stages, when authors wish to assert their findings without caveats. These findings broaden existing knowledge regarding the role of interactional metadiscourse in the early stages of academic writing, particularly focusing on how authors position themselves in relation to the audience in unpublished documents.

Table 11
Difference Between the Metadiscoursal (Interactional) Resources of The Published and Unpublished Research

Group	Mean	SD	*t*	*p*-value	Mean Diff	Interpretation
Unpublished	2.536	.702	2.370	.022	.528	Significant
Published	2.008	.865				

Note. Independent: Research Publication
Dependent: Metadiscoursal (Interactional) Resources

The difference between the metadiscoursal (interactional) resources of the published and unpublished research were tested using an independent sample t test, as shown in Table 11. The analysis found that the difference between the two groups was statistically significant ($t = 2.370$, $p = .022$), as the *p*-value is less than the significance level of 0.05. The mean difference (MD = .528) shows that the unpublished research has significantly higher metadiscoursal (interactional) resources, compared to published research.

This finding suggests that the published and unpublished research studies differ markedly in their metadiscoursal, interactional features. This means that unpublished research makes greater use of interactional metadiscoursal resources than published works. As to Interactional metadiscourse, it pertains to the strategies employed by the writer in

relation to the reader, position taken, and flow of the argument. This comprises hedges, boosters, attitude markers, engagement markers, and self-reference, among others.

The use of interactional resources is more frequent in unpublished work is likely a reflection of a nascent stage of scholarly communication where authors are attempting to place themselves in the research discourse and directly engaging with the reader. Engagement self-reference in the text and self-reference markers are hypothesized by Carter and Nguyen (2023) to be markers of stronger identity legitimacy positionality in drafts or unpublished texts which is a signal to be more pronounced in the window of research context, therefore, used frequently in marks of engagement, self-reference, and boosters. It

Less formal unpublished work, which is relatively new and still in progress, may benefit from a more exploratory approach, which could justify the increased use of self-mentions. Zhang and Li (2021) mention that self-referencing in early drafts is a widespread practice meant to highlight an author's presence and contribution within the work. These kinds of references are often more frequent in documents that have yet to be subjected to the rigors of formal academic publishing standards.

In contrast, published work tends to adopt a more formal and impersonal stance, with direct engagement with the reader diminished, focusing more on the advanced academic work. This is in line with Davies and Zhou (2022), who reported that in published academic documents, authors tend to reduce the use of interactional metadiscourse, thereby shifting to a more authoritative and objective tone.

The findings also suggest a change in the distribution of boosters and hedges used within the two groups. While unpublished works seem to use more boosters to instate confidence in their findings, Biber et al. (2021) argued that published works has hedges which indicates caution, particularly within the peer review context. This study's analysis contributes to the understanding of the changing patterns of metadiscourse as the document evolves from a draft to a published version.

In conclusion, the analysis captures a distinctive contrast between the published and unpublished works regarding the interactional metadiscoursal features, which were found to be considerably less in the latter. This stems from the higher focus on author involvement and representational responsibility in earlier drafts, unlike the subdued formal tone that characterizes published texts. These results enhance the appreciation of the developing significance of interactional metadiscourse across the phases of academic writing.

Conclusions

An analysis of unpublished and published research articles illustrates the differences in rhetorical and structural sophistication, particularly about abstracts. Published research articles usually demonstrate greater sophistication in rhetorical interpretation and have an orderly configuration of moves and steps. The components "Product" and "Conclusion' are conspicuously present in the published abstracts, suggesting that they serve as essential components for the summarization of research findings and for articulating the relevance of

the study vis-a-vis other existing literature. The prominence is a reflection of the scope of research in the published abstracts and the rest of the scholarly community's expectation of well-organized, clear, and thorough abstracts (Hyland, 2021; Peng & Zheng, 2021).

Published abstracts also show an increased employment of interactive metadiscoursal resources compared to the unpublished ones. As a result, the clarity, coherence, and even reader engagement is significantly enhanced. Interactive metadiscourse contributes to the ordering of the abstract. It helps in the presentation of the main points and ensures that the flow is logical and cohesive. The polished strategies noticed in published abstracts, unlike unpublished ones, mark an author's attempt to academically engage with his audience and demonstrate that something has been done to address the scholarly gap. This discrepancy manifests the researcher's awareness of the educational system in which he operates and several components comprising academic communication such as straightforwardness and compliance with academic norms. Abstracts included in publications are usually performed to an appropriate level evidencing an understanding of how to abstract complex ideas devoid of elaborate explanations. Moreover, the published works' accuracy of title, abstract, structure, and tone suggest that these authors exerted higher than average effort or had more than average knowledge of the requirements for a peer-reviewed publication. This adherence to the academic standards enhances the credibility of the authors, but more importantly allows them to distribute their research widely within the academic society.

"Interactional metadiscourse" captures the reader's attention to foster a more direct engagement between the author and the audience. The author tries to interact with the reader more in unpublished abstracts, which explains the prevalence of this type of metadiscourse in those texts. Elements of interactional metadiscourse often include hedging, addressing the audience directly, and referring to collective understanding, all with the intention of building a connection with the audience. This strategy works towards creating an impression of inclusiveness or inviting the audience towards greater collaboration. While this technique may enhance engagement and accessibility, it often diminishes the expected formal, objective tone of peer-reviewed texts. This shift in focus moves from substantiated claims to unsystematic arguments.

In previously unpublished abstracts, focusing on interactional metadiscourse may indicate the author's attempt in claiming their place in the academic dialogue. Such strategies might demonstrate some understanding of the audience's expectations, but at the same time, it indicates an intention to construct a less formal, more persuasive tone which is atypical for published research. Therefore, the issue is how to engage the audience while upholding the emotionally restrained tone typical of professional, scholarly dialogue.

In unpublished versus published research, the disparities in the utilization of metadiscoursal resources can predominantly be explained by editorial procedures that impact the authors' rhetorical decisions. An editorial board made up of scholars from a particular discipline usually has a significant impact in defining the rhetorical aspects of research articles. Editors, as part of the review process, examine the extent to which a paper complies with the conventions of a given discipline, which, in the case of an article intended

for the academic community, might demand more elaborate rhetorical maneuvers for its acceptance (Fatahipour, Tahmasbi & Gharagozloo, 2024; Zhang & Zhan, 2020).

Editorial groups motivate the application of complex metadiscursive techniques to assist in improving the sharpness, order, and overall effect of published work. This applies mostly to upper-level journals, where the editorial focus tends to warp the research to fit current academic fads and ensure that the textbook is relevant to some specialized audience within arm's reach. More sophisticated rhetorical techniques, like interactional metadiscourse, help editors assist authors refine their works to maximize the attention span of the readers and simplify the explanation for more intricate ideas. This kind of editorial control affects not only the construction of the abstract, but also the structure and order in which the research is presented, alongside its purpose, outcomes, and importance.

The published research's sophisticated advanced metadiscursive features are likely to be associated with its quality and acceptance within the scholarly community. The presence of complex metadiscourse in published research signifies advanced academic quality, reflection of the author's level of scholarly communication. Such metadiscourse, especially the "interactional" and "interactive" resources, marks the possession of sophisticated academic discourse and coherent persuasive expression of complex concepts (Hyland & Sancho-Guinda, 2022; Fatahipour et al., 2024).

Research rigorously applying advanced metadiscourse is also deemed more refined and polished, positively influencing the possibility of being published in peer-reviewed journals. The presence of such elements contributes elegance and sophistication while making sure that the research isn't just full of complex jargon but is interesting to read for a large spectrum of scholars. Therefore, advanced metadiscursive techniques mark scholarly inadequacies because they reveal the author's competency in the rules of academic writing that enables him to produce work of exemplary standards. This advanced metadiscourse and research quality relationship underlines the role research analysis sophistication is important yet broadly overlooked as a criterion for the determination of an academic research's acceptance and influence.

To sum up, the results of the study emphasized the impact of editorial policies, metadiscourse, and the rhetorical level of sophistication on the acceptance and quality of research articles published. Research articles that have been published are shown to employ more complex rhetorical and metadiscoursal strategies because of editorial influence and the level of development of the research. Such factors improve not only the clarity and interest of the abstract, but also the appreciation of the research.

Recommendations

Focusing on the structural complexity of an abstract is critical for researchers who intend to publish their work in peer-reviewed journals and present in reputable conferences. One way to achieve this is through incorporating various metadiscoursal elements, which greatly contribute to the abstract's coherence, flow, and overall engagement. Metadiscourse means linguistic resources that navigate a reader throughout the text, indicate how the

content is organized, as well as the author-reader dynamics. Frequently published research works you control and adhere to some structural norms. By incorporating both interactive and interactional metadiscourse, a researcher would be able to adapt his or her abstract to the published norms. Interactive metadiscourse organizes aid content through guiding the readers to a logical sequence of ideas while interactional metadiscourse engages the readers directly and makes the text more persuasive (Hyland, 2021). As a result, it is recommended that researchers deliberately strive to make certain that their works are transparent, as well as strategically engaging to the academic audience.

Such techniques can result in more refined and professionally formatted abstracts that will be easier to publish in high-profile journals (Zhang & Zhan, 2020).

Editors and reviewers ought to provide more detailed feedback regarding metadiscoursal resources through the lens of meaningful scholarly writing. As much as structural components like moves and steps are evaluated, metadiscoursal elements such as interactive and interactional resources are missing from so many peer-review evaluations. Since metadiscourse significantly determines a text's meaning, perception, and understanding, helpful comments in this area would greatly assist authors in perfecting their texts. Authors would greatly benefit from explicit instructions on how to employ these resources as this would help them meet the rhetorical criteria of their respective disciplines. Such feedback would aid authors in grappling with the intricate system of academic writing norms and conventions and improve the quality of their scholarly work. Editors and reviewers must learn to appreciate the subtleties of metadiscoursal elements, including their persuasive, clarifying, and captivating features in a text (Fatahipour et al., 2024). Giving such feedback goes beyond enhancing one article; it encourages the entire community of scholars to rethink their approach to writing and accept the benefits of well-structured rhetoric.

The impact of training on metadiscoursal resources in academic writing requires academic attention. Especially Seminar and Workshop trainers at the beginning of their careers need to learn how to use these resources to improve clarity and enhance reader engagement. Training programs could assist authors in learning how to deploy metadiscourse in argument construction, ideas proposition, and interaction with the audience in a way acceptable in academic writing. Also, other scholars need to be concerned about the use of metadiscoursal resources in other academic disciplines. These disciplines have their sets of customs and traditions, and metadiscourse varies widely from one discipline to another. For example, the engagement or argumentation metadiscursive components would have radically different importance in humanities-based research as opposed to empirical scientific studies. Recognizing these differences would enable researchers to devise appropriate strategies for the communication tailored to the specific contexts (Hyland, 2016; Peng & Zheng, 2021).

Hence, these recommendations focus on the need to improve the structural and rhetorical sophistication of the writing abstracts and other forms of scholarly work. Through targeted metadiscoursal engagement, explicit instructional feedback, and tailored guidance pedagogically emphasized on a particular discipline, researchers will enhance the

effectiveness and refinement of their writing, including its clarity and persuasiveness. These measures will enhance individual scholarly research output and advance the collective evolution of academic writing culture in particular scholarly communities.

References

Bacang, B. B., Rillo, R. M., & Alieto, E. O. (2019). The gender construct in the use of rhetorical appeals, hedges, and boosters in ESL writing: A discourse analysis. *Asian EFL Journal*, *25*(5.2), 210–224

Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. Continuum.

Hyland, K. (2009). *Academic discourse: English in a global context*. Continuum.

Hyland, K. (2016). *Disciplinary discourse: Social interactions in academic writing*. Longman.

Hyland, K. (2020). *Second language writing*. Cambridge University Press.

Hyland, K., & Jiang, F. (2017). *Genre and discipline-specific writing in academic contexts*. Springer.

Liu, M., & Hsu, C. (2022). Comparative analysis of metadiscourse markers in English and Chinese research article abstracts. *Journal of Pragmatics*, 138, 103-118. https://doi.org/10.1016/j.pragma.2022.03.007

Qian, D., & Ma, W. (2019). Exploring moves and metadiscourse in research article introductions in English and Chinese. *Text & Talk*, 39(5), 723–742. https://doi.org/10.1515/text-2019-0033

Salager-Meyer, F. (2020). *The discourse of medical English: Writing for professional and academic purposes*. Routledge.

Suherdi, D., Kurniawan, E., & Lubis, A. H. (2020). A genre analysis of research article 'findings and discussion' sections written by Indonesian undergraduate EFL students. *Indonesian Journal of Applied Linguistics*, *10*(1), 59–72. https://doi.org/10.17509/ijal.v10i1.24989

Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.

Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: Essential tasks and skills* (3rd ed.). University of Michigan Press.

Thomas, S., & Hawes, C. (2018). Pragmatic competence in academic discourse: The role of rhetorical moves in research articles. *Language and Social Interaction*, 50(3), 365-380. https://doi.org/10.1080/08351813.2018.1476358

Yang, Y., & Allison, D. (2015). The role of modality in research article writing: A corpus-based study of moves in the discussion section. *English for Specific Purposes*, 41, 27-42. https://doi.org/10.1016/j.esp.2015.02.003

Zhang, Y., & Chen, W. (2019). The role of hedges in academic writing: A case study of Chinese and English academic research articles. *Journal of Writing Research*, 20(1), 49-63. https://doi.org/10.17193/jwr.2022.20.1.49