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RHETORICAL MOVE STRUCTURES IN METHODS SECTIONS OF Q1 SCOPUS-INDEXED APPLIED LINGUISTICS RESEARCH ARTICLES

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ABSTRACT

This study investigates the rhetorical move structures in the Methods sections of applied linguistics research articles (ALRAMs) published in Q1 SCOPUS-indexed journals. Drawing on Peacock's (2011) move analysis framework—supplemented with two emergent moves—60 articles were systemically coded across qualitative, quantitative, and mixed-methods paradigms from five top-ranked journals. The study examines move frequencies, linear sequences, and step-level realizations to identify both shared conventions and paradigm-specific patterns in methodological reporting. The findings reveal four obligatory moves—Overview, Subjects/Materials, Procedure, and Data Analysis—present in all texts (100%), while Research Aims/Questions and Location appear in nearly all (98.3%). Limitation and Ethical Considerations are conventional, (71.7% and 66.7%) and Researcher Positionality emerges as optional (25%). The most frequent sequence, M3→M5→M7 (Subjects/Materials → Procedure → Data Analysis), underscores a consistent methodological backbone across paradigms. However, rhetorical step realizations vary: qualitative articles emphasize context and reflexivity, quantitative ones highlight statistical procedures, and mixed-methods texts integrate both. These insights contribute to genre analysis by offering cross-paradigmatic evidence of how Methods sections are structured in applied linguistics. Pedagogically, the study supports academic writing instruction by guiding novice researchers to align with disciplinary norms and enhance methodological clarity and credibility. The findings also suggest directions for future research across sections, disciplines, and publication contexts.

Keywords: Move analysis; methods section; applied linguistics; research paradigms

1. INTRODUCTION

In applied linguistics, research articles help share knowledge and move the field forward (Hyland, 2004, 2015; Swales, 1990, 2004). The Methods section is important because it shows how studies are carried out, which makes research more transparent, repeatable, and easier to evaluate (Peacock, 2011; Swales, 1990). A clear and well-organized Methods section also helps explain the research process and builds trust, which is now a standard in international peer-reviewed journals.

Despite the increasing number of studies investigating rhetorical moves in various RA sections regarding the IMRD structure, such as (I) Introduction (e.g., Alsharif, 2022; Geng et al., 2023; Samraj, 2002; Sari et al., 2022; Sheldon, 2011), (M) Methods (e.g., Tulud, 2017; Zhang & Wannaruk, 2016), (R) Results (e.g., Del Saz-Rubio, 2019; Suherdi et al., 2020; Yang & Allison, 2003), and (D) Discussion (e.g., Basturkmen, 2012; Sithlaothavorn & Trakulkasemsuk, 2016; Ulya, 2022), the Methods section in applied linguistics has received comparatively limited attention, particularly across different research approaches. Existing studies have primarily analyzed Methods sections in single-paradigm studies or in non-linguistic fields, leaving a significant gap in understanding the rhetorical patterns that shape the reporting of methods in qualitative, quantitative, and mixed-methods research articles within applied linguistics. Moreover, through discerning the author guidelines of the research journals, it reveals that most of research journals in the field of applied linguistics simply provide the manuscript submission guidelines and formatting requirements, lacking the details of what information is essentially presented and how it should be consecutively ordered in the methods section.

In academic research, the Methods section is seen as the backbone of any empirical study. It explains "when, where, and how" the research was done to make the process transparent, replicable, and valid (Butler & Spoelstra, 2023; Li & Prior, 2022). By clearly describing participants, tools, procedures, and analysis methods, the Methods section helps readers and reviewers judge the quality of the findings and repeat the study under similar conditions. This is important for avoiding bias and mistakes in research. In fields like applied linguistics, clear methods—such as using corpus-linguistic tools or ethnographic approaches—connect theory to practice and help new researchers match their questions with the right techniques (Tulud & Mosquera, 2021).

Although Methods sections are central, genre-analytic studies have mostly focused on Introductions (Swales, 1990) and often treated Methods as just technical reports instead of rhetorical constructs (Zhang & Wannaruk, 2016). However, reviewers often focus on methodological rigor and reporting clarity. Material and Methods sections get more peer-review comments than other parts, which shows a gap between what scholars study and what editors emphasize. This neglect may come from the perception that Methods sections are always standard and formulaic. In reality, discipline-specific conventions and journal guidelines lead to a lot of variation in how Method sections are organized and explained (Butler & Spoelstra, 2023; Tulud & Mosquera, 2021).

Studying the rhetorical moves in Methods sections is important for bridging this gap. Move analysis shows how authors build persuasive methodological stories, explain their design choices, and follow disciplinary standards (Tulud & Mosquera, 2021; Zhang & Wannaruk, 2016). By identifying required moves like Subjects/Materials, Procedure, and Data Analysis, as well as optional ones like Limitation and Reflexivity, this research helps both EAP teaching and gives students a better understanding of the genre. It also informs author guidelines in applied linguistics journals (Li & Prior, 2022; Zhang & Wannaruk, 2016). Overall, clearly describing the structure of rhetorical moves in Methods sections makes research methods more transparent, helps others repeat studies, and supports both new and experienced researchers in writing strong and effective research articles.

Applied linguistics Methods sections routinely incorporate language-focused instruments and procedures—for example, detailed transcription and coding of interactional data in conversation-analytic work—because analyzing talk-in-interaction is a core AL methodology (Kasper & Wagner, 2014). They also frequently unfold in classroom and assessment contexts and involve multilingual participants, which raises distinctive ethics/reporting requirements (e.g., consent, confidentiality, context-specific risks) that shape what must be documented in Methods (Yaw et al., 2023). Empirical genre-analytic studies of AL Methods show field-specific realizations and step choices: for instance, Zhang and Wannaruk (2016) map the rhetorical structure of Methods, while Liu and Pan (2023) connect lexical bundles to moves in Methods—evidence that organization is discipline- and method-sensitive. Overall, these strands suggest that move realization and sequencing often depart from generic social-science templates, especially around Materials/Procedure and ethics/positionality.

Despite the standardized headings of Methods, the rhetorical work within those headings varies (e.g., degree of contextualization, iteration between Materials and Procedure, placement of ethics or caveats), which prior research links to disciplinary norms and journal guidance (Lim, 2006; Sovann et al., 2022; Swales, 1981, 1990, 2004). A move-analytic perspective therefore clarifies not only what is reported but how persuasive methodological narratives are constructed (Bullock et al., 2021).

Against this backdrop, the present study aims to investigate rhetorical move structures in the Methods sections of applied linguistics research articles published in SCOPUS-indexed journals. Specifically, the study explores move frequencies and move sequences in the field of applied linguistics, and examines the realization of rhetorical steps within each move, highlighting both similarities and variations in applied

linguistics. The findings are intended to contribute to genre-based research in applied linguistics (Hyland, 2003; Tardy, 2009), provide pedagogical implications for academic writing instruction (Swales & Feak, 2004), and offer practical guidance for novice and experienced researchers aiming for publication in high-impact journals.

The study attempted to address the following research questions:

RQ1: What are move frequencies used for the Methods sections of applied linguistics research articles indexed in SCOPUS?

RQ2: What move sequences are found in the Methods sections of applied linguistics research articles indexed in SCOPUS?

RQ3: How do the rhetorical steps that realize each move differ across qualitative, quantitative, and mixed-methods articles (QUAL/QUAN/MMR)?

2. LITERATURE REVIEW

2.1 Genre analysis and rhetorical moves in research articles

Genre analysis has long been recognized as a fundamental approach in applied linguistics and English for Academic Purposes (EAP), particularly in understanding the rhetorical organization of academic texts (Bhatia, 1993; Swales, 1990). Move analysis, rooted in the work of Swales (1990), has emerged as a powerful analytical framework for uncovering the rhetorical structures that characterize academic writing. This approach enables researchers to identify specific rhetorical moves and steps employed by authors to achieve communicative purposes within particular sections of RAs. Move analysis provides a concise lens on how Methods sections achieve their purposes without detailing formal taxonomies here. Moves refer to the higher-level communicative purposes, while steps are the lower-level realizations of those purposes within the rhetorical structure (Swales, 2004). The central concept of genre analysis is the examination of recurring patterns in language use. These patterns emerge in well-defined communicative contexts and assist writers in fulfilling audience expectations (Swales, 2004). A fundamental aspect of this approach is the concept of rhetorical moves, which are distinct sections of a text serving specific functions. Rhetorical moves structure information to facilitate reader comprehension and evaluation of research.

Move analysis helps researchers find the structural patterns writers use to achieve certain goals in different parts of a research article. This method is now a key tool for studying academic writing and understanding how different fields write. The Methods section, often seen as simple, actually involves careful choices that make research clearer and more trustworthy (Lim, 2006).

2.2 Rhetorical move framework for Methods sections

Among the frameworks developed for move analysis, Peacock (2011) introduced a comprehensive seven-move model specifically designed for Methods sections. This model, based on a cross-disciplinary analysis of research articles (RAs), provides detailed insights into the organizational structure of methodological reporting. The seven moves identified in this model are: (1) Overview, (2) Research Aims, Questions, or Hypotheses, (3) Subjects or Materials, (4) Location, (5) Procedure, (6) Limitation, and (7) Data Analysis.

Peacock's (2011) model conceptualizes the Methods section as a sequence of communicative moves. Move 1 (Overview) outlines the overall design and stages of the study. Move 2 (Research Aims, Questions, or Hypotheses) establishes the focus by stating the objectives or hypotheses. Move 3 (Subjects or Materials) details the participants or materials investigated, including instruments, data sources, and sampling criteria. Move 4 (Location) describes the institutional or geographical context and may justify the site selection. Move 5 (Procedure) presents the step-by-step data collection process, from preparation and piloting to administration and controls. Move 6 (Limitation) identifies constraints affecting interpretation, such as sampling, measurement, or context, and describes any mitigation strategies. Move 7 (Data Analysis) explains the transformation of data into results, specifying analytic frameworks, statistical or coding methods, software, and reliability measures.

2.3 Studies on Methods sections across research approaches

Several studies have demonstrated that research approaches influence the rhetorical organization of Methods sections. In qualitative research, the reporting of research setting, participants, and the researcher's role is typically detailed to establish credibility and trustworthiness (Hyland, 2009). Quantitative studies, on the other hand, prioritize the description of experimental designs, instruments, sampling procedures, and statistical methods (Lim, 2006). Mixed-methods research integrates both paradigms, often leading to complex methodological reporting that combines features from QUAL and QUAN approaches (Paltridge & Starfield, 2013). The relative standardization of participants-instruments-analysis headings may partially

explain the historical under-attention to Methods in move analysis (Cheng, 2019; Sollaci & Pereira, 2004) even though applied linguistics Methods routinely demand discipline-specific rhetorical work—e.g., transcription/coding procedures, ethics/positionality with multilingual participants, and justification of instruments/analysis—which genre studies show varies across texts (Cotos et al., 2017; Smagorinsky, 2008; Zhang & Wannaruk, 2016)

However, research on Methods sections tends to focus on single approaches or broader disciplinary differences. For example, Anthony (1999) examined engineering RAs, while Lim (2010) focused on medical RAs. Few studies have explored the Methods section in applied linguistics, especially across QUAL, QUAN, and MMR approaches within a unified analytical framework. Within applied linguistics, Methods-focused analyses remain limited (e.g., Liu & Pan, 2024; Zhang & Wannaruk, 2016), typically emphasizing specific features such as statistical reporting or lexical bundles rather than cross-paradigmatic move sequencing. This gap limits our understanding of how applied linguistics researchers structure their methodological reporting to align with different research approaches.

2.4 Move sequences and step realizations

Beyond move frequency, the sequence in which moves appear and the realization of steps within moves reflect important rhetorical patterns in academic writing (Kanoksilapatham, 2005; Swales, 2004). Move sequencing reflects the linear progression of methodological reporting and varies according to disciplinary norms and research paradigms. For example, qualitative (QUAL) studies often emphasize Moves 3 (Subjects/Materials) and 4 (Location) early in the Methods section, whereas quantitative (QUAN) studies typically begin with Move 5 (Procedure) and Move 7 (Data Analysis).

Step realization within moves indicates the level of specificity and elaboration used by authors. Studies have shown that disciplinary communities have different expectations regarding the amount of detail provided in various steps (Bhatia, 2004; Kanoksilapatham, 2005). In applied linguistics, steps such as ethical compliance and researcher role are often explicitly stated in QUAL and MMR articles, while they are less commonly detailed in QUAN articles (Hyland, 2009; Loi & Lim, 2019). Exploring both move sequences and step realizations is essential for understanding how writers construct their methodological narratives to suit the research paradigm and disciplinary conventions.

2.5 Research gap and significance

Although considerable research has employed move-based genre analysis to examine RAs, the Methods section in applied linguistics, particularly across different research paradigms, remains underexplored. There is a lack of comprehensive studies that investigate rhetorical moves, their frequency, sequence, and step realizations in QUAL, QUAN, and MMR applied linguistics articles published in SCOPUS-indexed journals.

This gap is significant because knowledge of rhetorical structures is essential for genre researchers, novice academic writers, and English for Academic Purposes (EAP) practitioners. Familiarity with typical rhetorical moves and their step-level realizations enable writers to construct more effective Methods sections that align with the expectations of journal reviewers and editors. Furthermore, cross-paradigmatic analysis offers valuable insights into the rhetorical flexibility and disciplinary conventions that influence methodological reporting in applied linguistics research.

Therefore, the present study seeks to fill this research gap by systematically analyzing rhetorical move structures in the Methods sections of applied linguistics research articles indexed in SCOPUS. A focus on the similarities and differences among QUAL, QUAN, and MMR paradigms enables this study to contribute to genre theory and academic writing pedagogy, while also providing practical implications for research writing practices in applied linguistics.

3. RESEARCH METHODOLOGY

This study employed a qualitative research design based on a move analysis approach to investigate rhetorical move structures in the Methods sections of applied linguistics research articles (ALRAMs). While Web of Science offers rigorous selectivity, SCOPUS provides broader coverage of applied linguistics outlets and open-access titles, which better serves a paradigm-stratified Methods corpus in this discipline. The analysis focused on the research articles published in SCOPUS-indexed journals. SCOPUS is uniquely valuable for rhetorical-structure studies in applied linguistics because it couples unrivalled disciplinary breadth—over 26,500 peer-reviewed journals updated in 2024, many journals belong to the Social Sciences and Arts & Humanities—the home domains of applied linguistics with a rigorous Content Selection & Advisory Board review that filters out predatory or stylistically idiosyncratic outlets (Elsevier, 2023). Its rich, standardized metadata (e.g., section labels, references, funding data) streamlines automated move-and-step extraction,

while integrated analytics (CiteScore, SJR) let the researchers link rhetorical choices to citation impact. Global coverage of open-access and regional titles captures culturally nuanced writing practices, enabling cross-cultural genre comparisons (Pranckutė, 2021). Empirical studies therefore prefer SCOPUS corpora when probing how move–step configurations vary by impact level (Suryawinata et al., 2023) or author expertise (Rochma, 2025), and its rapid ingestion of "articles in press" keeps such analyses current (Elsevier, 2023).

3.1 Corpus compilation

The corpus of this study consisted of 60 research articles purposively selected. The quantity of samples collected in previous investigations concerning rhetorical structures, particularly within discrete sections of the research articles authored by Cross and Oppenheim (2006), Doró (2013), Lorés (2004), and Pho (2008), are 12, 40, 36, 30, and 20, respectively, encompassing the entirety of the dataset. In contrast to the studies previously mentioned, the current research endeavor, however, amasses a total of 60 research article methods, evenly distributed across the delineated research approaches. This sample size is considered sufficient for thorough statistical analysis and practical qualitative review, as suggested by Tardy (2011). In each group, articles will be chosen at random to reduce selection bias and ensure the sample represents the broader research community in each paradigm (Thompson, 2012).

The top five Quartile 1 journals in applied linguistics were selected due to several key considerations. First, research on academic writing published in prestigious journals has provided significant insights into the communicative strategies used by accomplished scholars across disciplines (Hyland, 2015; Swales, 2004). Second, these studies demonstrate that effective academic writing combines clarity of expression with intentional rhetorical strategies that establish credibility and engage readers (Tardy, 2009). Third, evolving standards of academic linguistic quality reflect both traditional expectations of formal discourse and contemporary demands for inclusivity (Curry & Lillis, 2019). Recent analyses highlight an increasing emphasis on reader engagement and clarity within established scholarly frameworks (Hyland, 2005). Finally, precise and compelling writing not only communicates ideas effectively but also allows authors to develop a distinctive voice that resonates with their audience (Bazerman, 1988; Hyland, 2002). Achieving this competency requires understanding both explicit guidelines and implicit conventions within academic discourse communities (Moreno & Swales, 2018).

The corpus comprised Methods sections from Q1 journals indexed in Scopus. Quartile status (Q1) was determined using the SCImago Journal Rank (SJR) database for the 2024 reporting year. Only journals simultaneously indexed in Scopus and classified as Q1 in SJR in the Linguistics and Language category were retained. Thus, SCImago Journal Rank (SJR) was a ranking source, used to identify top-quartile applied linguistics journals and then downloaded articles from the journals' own websites. The names of the top-five applied linguistics journals in 2024 (accompanying in descending order of the SJR in the parenthesis) included *RELC journal (2.478), The Modern Language Journal (MLJ) (2.394), System (2.205), Studies in Second Language Learning and Teaching (SSLLT) (1.915), and TESOL Quarterly (TQ) (1.862),* respectively. All of the selected journals shared the reciprocal scope of publication regarding learning and teaching of second and foreign languages. Upon the inclusion criteria, the original research articles were written in English and published between 2021 and 2025, where all of the selected journals were currently published. In addition, the five-year interval represented the modernity which made it possible to scrutinize the current trend of language use in writing a research article (Hilpert & Gries, 2009; Gries, 2022). Research in corpus linguistics suggested that a five-year time-period effectively captured meaningful shifts in academic writing conventions while maintaining methodological rigor (Flowerdew, 2012; Gries, 2022). This temporal scope aligns with established practices in longitudinal studies of academic discourse evolution (Biber & Gray, 2016). Based on the research questions guided, this present study focused on the standalone methods section of applied linguistics research articles, following precedents in move analysis that emphasized the methodological section as crucial for understanding disciplinary writing practices (Kanoksilapatham, 2015; Swales & Feak, 2012). Moreover, the methods section should be explicitly structured as Methods or Methodology in the research articles. In the case of other nomenclatures (e.g., *The present study*, *This study*), they were omitted from the corpus. Furthermore, the ALRAMs ranged between 1,000–1,500 words in length.

3.2 Data analysis procedures

This study adapted Peacock's (2011) seven-move framework supplemented with two emergent moves for the analysis, which provided a systematic lens to identify and categorize rhetorical moves and their associated steps. The analysis procedures involved several stages. First, only research articles aligned with the inclusion criteria mentioned in the previous section were downloaded from the official websites of the top-five journals. The research article was randomly selected in the same research journal. In case the randomized research articles did not conform to the criteria; they were eliminated and further randomized for new research articles within that certain research journal. The researchers endeavored to evenly select

the same proportion of research articles from different research approaches in the field of applied linguistics. The downloaded research articles were then converted to Microsoft Word file by using Google Drive with the feature of Open with Google Docs. Consequently, the Methods sections were extracted and stored in a discrete folder to form the corpus for the analysis. After procuring the methods corpus, the process of refining the method texts were conducted to eliminate irrelevant components (e.g., headings, subheadings, figures, tables, etc.) to maintain the focus on the rhetorical functions of the texts (Farhang-Ju et al., 2024; Liu & Pan, 2024; Yuvayapan & Yakut, 2022), and to prevent any distortion of the analytical outcomes. Additionally, the extracted texts were encoded. For example, the methods texts selected from *RELC journal* were encoded as RELC 1 to RELC 12, and those methods texts selected from *The Modern Language Journal*, *System*, *Studies in Second Language Learning and Teaching*, and *TESOL Quarterly* were likewise executed as MLJ 1 to MLJ 12, System 1 to System 12, SSLLT 1 to SSLLT 12, and TQ 1 to TQ 12, respectively. This process of ethical considerations was taken into account by ensuring the anonymity of authors and journals.

Second, the entire texts were carefully read to understand the overall communicative function of the texts, and segmented the methods texts into distinct rhetorical moves. The analysis was deliberately restricted to the Method section as a distinct rhetorical unit. Moves were coded only when the corresponding function was realized within the Method section itself, as identified by journal headings and subheadings (e.g., Method, Methods, Methodology, Participants, Instruments, Data Analysis). The analysis of rhetorical moves and steps was based on Peacock's (2011) seven-move framework, consisting of *Overview, Research Aim/Questions/Hypotheses, Subjects/Materials, Location, Procedure, Limitation,* and *Data Analysis.* After the two-week interim, the same texts were once recoded by the researchers to reduce recall bias (Miles et al., 2014; Stemler, 2004). In conformity with the mini-study on identifying rhetorical moves in the ALRAMs, it was discovered that two predominant themes across the entire 20 texts emerged as the additional moves that diverged from Peacock's framework (k = 0.83), namely *Ethical Considerations* and *Researcher Positionality*. Therefore, the two emergent moves were augmented to form the scheme coding protocol for this study. Since Peacock's framework devoted the attention to categorical method moves regardless of the sub-move or the step, in this study, the move's communicative purposes were segregated into specific steps to uncover the finer-grained communicative functions of the texts.

The identification of rhetorical moves and steps was guided by explicit linguistic markers—for example, verbs like "*we hypothesized*" to describe the research hypothesis, noun phrases such as "*data collection*" to expound how the data are collected (Swales, 2004), passive-voice clauses ("*participants were selected*") for characterizing the subjects or participants of the study (Hyland, 2004), or discourse cues ("*however*," "*moreover*") to depict the constraint of the study—serve as observable signals for where a move or step begins and ends (Bhatia, 1993); rhetorical functions, such as justifying the choice of an instrument, reporting reliability statistics, or outlining procedures, enact the specific communicative purposes of each step within a move, and context-dependent features—including disciplinary conventions (e.g., nominalizations favored in certain fields) (Bazerman, 1988), sectional norms (the typical Methods ordering of Participants → Instruments → Procedure → Analysis), intertextual cues (citations that imply a literature-review sub-move) (Hyland, 2004), and situational variables (journal guidelines or emerging norms like open-data statements)—shape how both markers and functions are realized in practice (Swales, 2004).

To examine variations in methodological reporting across qualitative, quantitative, and mixed-methods studies, the frequency of each rhetorical move and its constituent steps within the three corpora (QUAL, QUAN, and MMR) was recorded. Every occurrence was carefully tallied to ensure a comprehensive overview. Subsequently, the texts were examined sequentially to identify the specific order in which moves appeared. This approach enabled the mapping of both common and unique sequence patterns as they unfolded in authorial practice. These patterns were then compared across research approaches by noting which moves and steps were present or absent in each corpus, and how their relative ordering differed. This comparison highlighted paradigm-driven preferences in methodological framing. For each corpus, both raw frequencies and corresponding percentages were calculated to quantify the prominence of individual moves and steps, thereby facilitating direct cross-paradigmatic comparisons. Microsoft Excel was used throughout the analysis to log coding results, generate frequency counts, and compute percentages, ensuring transparency and reproducibility in the procedural workflow.

3.3 Reliability of codification

To ensure consistency in move identification, 20% of the total corpus (12 out of 60 texts) were randomly selected for intracoder reliability analysis. This sample included qualitative, quantitative, and mixed-methods research. The same researcher recoded these texts after a three-week interval, a period used in earlier studies to reduce recall bias (Miles et al., 2014; Stemler, 2004). Selecting 20% of the texts follows common practice in genre-based discourse analysis, where using 10% to 25% of the dataset is considered enough to assess coder stability (Kanoksilapatham, 2005; Peacock, 2011). Agreement between the two

coding rounds was calculated using both percentage agreement and Cohen's Kappa to account for chance agreement (Lombard et al., 2002). The analysis yielded a Cohen's Kappa value of 0.76, indicating a substantial level of agreement across the two-interim coding, and the percentage agreement was at 92%. Before independent coding, the three-hour training session of the move/step identification with the codebook along with move/step exemplars and completed a calibration session (5 sample texts) to reconcile step granularity and boundary cues.

An intercoder reliability check was also conducted to ensure the reliability of the move and step analysis. A second coder with a doctorate in Applied Linguistics and strong knowledge of move analysis independently analyzed 20% of the corpus. The agreement between the coders was measured using Cohen's Kappa coefficient. The result was 0.87, which shows an almost perfect level of agreement, and the percentage agreement was 94%. This confirms the coding process was both robust and consistent. Discrepancies were recorded and resolved by reviewing the functions of text segments and refining the definitions of specific moves and steps. For example, minor disagreements mostly involved the implicit presence of Move 6 (Limitation) and the different levels of detail in Move 7 (Data Analysis) and Move 9 (Researcher Positionality) in some texts. Together, these findings highlight both the structured approach and the rhetorical flexibility found in Methods sections of applied linguistics research, showing how research paradigms shape methodological reporting practices.

4. FINDINGS

4.1 Rhetorical moves and their frequencies

To answer Research Question 1, "What are move frequencies used in the Methods sections of qualitative, quantitative, and mixed-methods applied linguistics research articles indexed in SCOPUS?", data from 60 texts (20 for each approach) were collected. Both raw counts and relative frequencies for each move were calculated. Table 1 shows the raw count of texts in which the nine moves appear across the whole corpus. These figures provide the empirical basis for the following move-by-move analysis. The analysis focuses on obligatory, conventional, and optional elements in the methods sections. Kanoksilapatham (2015) classified moves as obligatory if they appear in 100% of texts, conventional if they appear in 60–99%, and optional if they appear in less than 60%. These thresholds guide interpretation. For example, Limitation at 71.7% is considered conventional, not obligatory.

Table 1: Overall move/step frequency in ALRAMs

Move	(f)	Percent	Move type
Move 1	60	100*	Obligatory
Move 2	59	98.33**	Obligatory
Move 3	60	100*	Obligatory
Move 4	59	98.33**	Obligatory
Move 5	60	100*	Obligatory
Move 6	43	71.67**	Conventional
Move 7	60	100*	Obligatory
Move 8	40	66.67**	Conventional
Move 9	15	25.00***	Optional

Note: f = a raw count of texts which rhetorical moves occur in the entire corpus (of 60 texts)
* = obligatory (100%), ** = conventional (60-99%), *** = optional (less than 60%)

In all 60 Methods-section texts analyzed, Moves 1, 3, 5, and 7 appeared in every case (100%), showing that these are essential parts of research reporting. Moves 2 and 4 were likewise nearly universal, appearing in 98.3% of texts, which likewise marked them as effectively obligatory. By contrast, Move 6 (Limitation) appeared in roughly 72% of texts and Move 8 (Ethical Considerations) in about 67%, classifying both as conventional but not guaranteed elements. Finally, Move 9 (Researcher Positionality), which referred to the declaration of the researcher's background affecting data interpretation, was present in only a quarter of the corpus (25%), confirming its role as an optional move within method sections. The classification of this move might potentially shift as conventional if the corpus is larger in the further study.

Table 2: Move frequencies by research approaches (QUAL/QUAN/MMR)

Move	QUAL		QUAN		MMR	
	(f)	(%)	(f)	(%)	(f)	(%)
Move 1	20	100%	20	100%	20	100%
Move 2	19	95%	20	100%	20	100%
Move 3	20	100%	20	100%	20	100%
Move 4	19	95%	20	100%	20	100%
Move 5	20	100%	20	100%	20	100%
Move 6	14	70%	15	75%	14	70%
Move 7	20	100%	20	100%	20	100%
Move 8	13	65%	12	60%	15	75%
Move 9	5	25%	2	10%	8	40%

Note: f = a raw count of texts which rhetorical moves occur in each corpus

In terms of cross-approach comparison, Table 2 shows a shared core of highly frequent moves alongside more paradigmatically sensitive variation. Moves 1, 3, 5, and 7 are realized in all 20 texts in each subcorpus (100%), and Moves 2 and 4 are almost equally ubiquitous, occurring in 95–100% of QUAL, QUAN, and MMR Methods sections. By contrast, Moves 6, 8, and 9 display more variability across approaches. Move 6 appears in 70% of QUAL texts, 75% of QUAN texts, and 70% of MMR texts, while Move 8 is present in 65% of QUAL, 60% of QUAN, and 75% of MMR Methods sections. The most striking similarity across paradigms concerns Move 9 (Researcher Positionality), which is consistently the least frequent move in all three subcorpora, yet most prominent in MMR of 40%, occurring in only 25% of QUAL and 10% of QUAN. These patterns indicate that the three approaches share a stable core of methodological moves, but differ in the extent to which more optional or reflexive moves are incorporated into the Method section. These rhetorical move structures suggest that quantitative and mixed-methods authors tend to construct more structurally saturated Methods sections than qualitative authors, while researcher positionality remains only marginally foregrounded regardless of research approach. Below were descriptions of all nine rhetorical moves with the exemplars of their corresponding excerpts.

Move 1: Overview. The Overview provides a concise summary of the research methodology, typically located at the beginning of the Method section.

(1) *A video-based multi-turn role-play task was given via computer to collect data. It simulated interactions between participants and their interlocutor appearing in videos.* (System 2)

Move 2: Research Aims/Questions/Hypotheses. The Research Objectives/Inquiries delineate the goals of the study and the inquiries that will be investigated.

(2) ***RQ1****: What are sources of pride reported by EFL/ESL teachers in relation to their professional roles?* ***RQ2****: In which situations do EFL/ESL teachers report experiencing pride in relation to their professional roles?* ***RQ3****: How do EFL/ESL teachers in this study define pride in their own words?* (TQ 4)

Move 3: Subjects/Materials. The Participants/Materials section details the individuals and materials employed in the research. The terminology utilized in this section pertains to sampling and data sources.

(3) ***Sixty-five speakers of L2 English*** *living in a non-English speaking country (i.e., Spain) participated in the study. They were all* ***L1 Spanish speakers****.* (System 9)

Move 4: Location. The Location specifies the exact location of the research, the geographical coordinates where the study was conducted. Justifications for selecting the site may also be provided.

(4) *This study was conducted in a public secondary school located in* ***Northwest China****.* (TQ 14)

Move 5: Procedure. The Explanation of Procedures delineates the methodologies utilized for data collection.

(5) ***Applying*** *a manual strategy, we* ***classified*** *the 3,992 articles as non-empirical, quantitative, qualitative, mixed methods, and systematic reviews* (SSLLT 15)

Move 6: Limitation. The segment of text shows the boundaries or constraints of the study.

(6) *Because **we did not have the possibility** to run standardized language tests with the students who had written the Abitur examinations, we chose these comprehensive English grades...* (MLJ 8)

Move 7: Data Analysis. Data analysis elucidates the methods employed for data analysis.

(7) ***Thematic analysis** was used to code the data. Interviewed students were labeled S1 (Student 1) to S9 (Student 9) to respect their privacy.* (RELC 17)

Move 8: Ethical Considerations. This move encompasses explicit statements about IRB approval, consent processes, or data anonymity.

(8) ***Institutional Review Board approval**, **informed consent** was obtained from the school, teachers and parents...* (RELC 13)

Move 9: Researcher Positionality. This move refers to the declaration of the researcher's background affecting data interpretation.

(9) *As a bilingual researcher with prior teaching experience in the program, **the first author maintained a reflexive journal and conducted peer debriefings** to mitigate interpretive bias during coding* (MLJ 13)

4.2 Move sequence across research approaches

To address Research Question 2—"What move sequences are found in the Methods sections of qualitative, quantitative, and mixed-methods applied linguistics research articles indexed in SCOPUS?"— the linear order of moves were extracted from each of the 60 texts. The results revealed 5 repeated move patterns and 45 unique move patterns. Since move patterns distinctly varied in ALRAMs, the top-five most frequent patterns were displayed along with their raw frequencies and relative percentages in Table 3.

Table 3: Move patterns across research approaches in applied linguistics

Pattern (Moves)	Occurrences	Percent
M3→M5→M7	5	8.3%
M4→M3→M5→M7	3	5.0%
M3→M8→M3→M5→M7	2	3.3%
M3→M5→M3→M5→M7	2	3.3%
M1→M4→M3→M5→M7	2	3.3%
Each other unique pattern	1	1.7% each

Across the 60 Methods sections, certain moves and sequences dominated the rhetorical organization of applied linguistics research articles. A series of moves that was frequently occurred in the linear order across the entire corpus was considered the patterns, albeit the 51 unique patterns. Move 3 (Subjects/Materials), Move 5 (Procedure), and Move 7 (Data Analysis) appeared in every text (60/60), establishing a clear "core triad" of M3→M5→M7 that underpins virtually every Methods section. In five texts, this triad occurs contiguously, while in four others iterative M3↔M5 cycles was observed (e.g., M3→M5→M3→M5→M7), reflecting authors' back-and-forth elaboration between materials and procedures before analysis.

Although Move 6 (Limitation) and Move 9 (Researcher Positionality) did not appear in any of the five most common sequence patterns across the 60 Methods sections, this does not mean they are entirely absent from applied linguistics articles. Instead, they simply did not occur in the strict linear order that characterizes those frequent sequences. Their omission from the top patterns suggests that, in this corpus, authors rarely embed explicit methodological caveats or reflexive stance statements directly within the Methods section.

Taken together, these results indicated a strong preference for the "Subjects/Materials → Procedure → Data Analysis" backbone, occasionally prefaced or interleaved with Location (Move 4) or Ethical Considerations (Move 8). The complete absence of Limitations and Researcher Positionality moves further underscored a conventional, forward-focused methodological narrative in applied linguistics research articles.

4.3 Step realizations within moves 3, 5, and 7

To address Research Question 3 "How do the rhetorical steps that realize each move differ across qualitative, quantitative, and mixed-methods articles (QUAL/QUAN/MMR)?", the analysis of steps within moves provided further insights into the rhetorical organization of ALRAMs.

Table 4: Step frequencies across research approach in ALRAMs

Move	Steps	Frequency	(%)	Classification
Move 1 Overview		60	100*	Obligatory
Move 2 Research aims/Questions/ Hypotheses		59	98.33**	Conventional
Move 3 Subjects/Materials	Step 1 Participant description	60	100*	Obligatory
	Step 2 Participant selection criteria	59	98.33**	Conventional
	Step 3 Material description	60	100*	Obligatory
Move 4 Location		59	98.33**	Conventional
Move 5 Procedure	Step 1 Pre-data collection preparation	60	100*	Obligatory
	Step 2 Data collection procedure	60	100*	Obligatory
	Step 3 Data processing/transcription	57	95**	Conventional
Move 6 Limitation		43	71.67**	Conventional
Move 7 Data analysis	Step 1 Statistical analysis procedure	60	100*	Obligatory
	Step 2 Reliability and validation procedure	54	90**	Conventional
Move 8 Ethical considerations		40	66.67**	Conventional
Move 9 Researcher positionality		15	25***	Optional

Note: f = a raw count of texts which rhetorical moves occur in the entire corpus (of 60 texts)
* = obligatory (100%), ** = conventional (60–99%), *** = optional (less than 60%)

As shown in Table 4, certain steps were consistently present across all research approaches, such as Participant Description (Step 1 Move 3), Material Description (Step 3 Move 3), Pre-Data Collection Preparation (Step 1 Move 5), Data Collection Procedure (Step 2 Move 5), and Statistical Analysis Procedure (Step 1 Move 7). The identification of steps in three moves was illustrated along with their corresponding excerpts as follows.

Step 1 (Move 3): Participant Description. In this step, it provided the participant background.

(10) "*Almost three-quarters of the students have a language background classified as being other than English*" (TQ 1)

Step 2 (Move 3): Participant Selection Criteria. This step explained how the researcher selected the sample of the study.

(11) "Undergraduates from two universities in southern China were approached and invited for participation if they met the following criteria: (1) Chinese nationality; (2) no dyslexia; and (3) enrolled in English class(es)." (SSLLT 1)

Step 3 (Move 3): Material Description. This second step of Move 3 provided information about teaching materials.

(12) "The target items were 24 phrasal verbs selected from the PHaVE List, which consists of the 150 most common English phrasal verbs" (TQ 7)

Step 1 (Move 5): Pre-Data Collection Preparation. It described the step before data collection.

(13) "*Participants were also trained in the use of the idiodynamic software before the study.*" (MLJ 1)

Step 2 (Move 5): Data Collection Procedure. This step described the detailed descriptions of data gathering.

(14) "*During data collection, the three focal children's verbal interactions with peers and their Chinese teachers were audio recorded all day long for 6 near-consecutive days...*" (MLJ 10)

Step 3 (Move 5): Data Processing/Transcription. It explained how data were processed and prepared for analysis.

(15) "*Parsed the abstracts with spaCy... extracted all the noun phrases... calculated frequency and range...*" (SSLLT 13)

Step 1 (Move 7): Statistical Analysis Procedure. This step describes the statistical techniques employed.

(16) "We used independent t-tests to identify any significant differences… we also used a series of repeated measures Analysis of Variances (ANOVAs)... All statistics were calculated using SPSS Statistics 27." (System 9)

Step 2 (Move 7): Reliability and Validation Procedure. For this step, it details translation checks, pilot testing, and item analysis.

(17) "The BFI-2 was meticulously translated to Persian and then back to English... and finally fine-tuned through piloting (by administering the instrument to 65 students... and then conducting item analysis)." (RELC 9)

To conclude, eight distinct steps emerged in Moves 3, 5, and 7. They were illustrated with the functional description and the exemplars of the corresponding excerpts. A participant description step, a participant selection criteria step, and a material description step together detailed who, what, and how subjects were chosen (Move 3). The procedure unfolded through a pre-data collection preparation step, a data-collection step, and a data processing/transcription step laying out the workflow (Move 5), and a statistical analysis procedure step and a reliability-and-validation procedure step described both statistical techniques and reliability checks (Move 7). This step-by-step mapping highlights the detailed accuracy of methodological reporting in different research approaches.

5. DISCUSSION

In the sixty Methods sections reviewed, certain rhetorical moves such as Overview, Subjects/Materials, Procedure, and Data Analysis were found in every case, showing their key role in applied linguistics reporting. Research Aims/Questions/Hypotheses and Location were also almost always present. Limitation, Ethical Considerations, and Researcher Positionality appeared less often, at rates of 71.7%, 66.7%, and 25% respectively. This "core triad" of subjects/materials, procedures, and data analysis, typically sequenced as M3→M5→M7, reflects Peacock's (2011) characterization of obligatory moves in social science Methods sections and corroborates Hyland's (2004) observation of cross-disciplinary consistency in methodological reporting.

Building on the overall distribution of moves described above, the different patterns of move realization reported in Table 2 are theoretically coherent rather than accidental. Quantitative articles, which realized six moves in 100% of the texts, operate within a paradigm that prioritizes numerical measurement, explicit operationalization, and statistical inference; it is therefore rhetorically necessary for QUAN authors to provide densely populated Methods sections in which sampling procedures, instruments, and data-analytic techniques are fully elaborated so that reliability and generalizability can be assessed (cf. Froehlich et al., 2019). By contrast, qualitative articles, which showed only four moves consistently realized across all texts, are grounded in an interpretive paradigm that seeks to capture meanings and definitions inherent to social reality through thick, context-sensitive description (Doering & Cooper, 2022). As noted in literature review, QUAL studies in applied linguistics often distribute methodological information across several sections (e.g., Method, Context, and sometimes Results/Discussion), which helps explain why some moves appear less saturated in the Method section itself, even when their communicative functions are present elsewhere. Mixed-methods articles, with five fully realized moves, fall between these two tendencies: their Methods sections must satisfy quantitative expectations for procedural transparency while also accommodating qualitative concerns with context and meaning, and this dual allegiance is reflected in an intermediate level of move saturation (Ivankova et al., 2006). Across all three approaches, the consistently low frequency of Move 9 (Researcher Positionality) suggests that, despite increasing calls for reflexivity—particularly in qualitative and mixed-methods traditions—explicit positionality statements have not yet been fully conventionalized as an obligatory move in applied linguistics Methods sections, and are instead often embedded in other moves or relocated to other parts of the article.

As considered research approaches, distinct tendencies emerged in how the Methods narrative is built. QUAL articles typically foreground context and researcher stance early, e.g., a sequence such as M1 (Overview) → M3 (Subjects/Materials) → M8 (Ethical Considerations) → M5 (Procedure) → M9 (Researcher Positionality) → M7 (Data Analysis), which frames subsequent analytic choices within site-specific constraints and reflexivity. This early contextualization frequently co-articulates ethical positioning (e.g., multilingual participants, insider roles), making the account interpretive rather than purely procedural. By contrast, QUAN articles prioritize the analysis pipeline, with a stable backbone of M3 (Subjects/Materials) → M5

(Procedure) → M7 (Data Analysis), often elaborating instrument validity, software/versioning, and decision thresholds (e.g., α levels, effect-size metrics) before any ancillary contextual notes. MMR articles adopt hybrid sequencing that stages or interleaves strands, for example M3→M5→M7 (QUAL strand) followed by M3→M5→M7 (QUAN strand), with occasional returns to M5 to describe integration (e.g., joint displays, merging) before the closing analytic step. These sequences are illustrative rather than exhaustive, but they capture the dominant rhetorical pressure in each approach: meaning-making through context and stance (QUAL), procedural transparency and replicability (QUAN), and phased triangulation or integration (MMR).

The interpretation of "obligatory," "conventional," and "optional" moves is conditioned by the a priori thresholds adopted (obligatory = 100%; conventional = 60–99%; optional <60%). These cut-offs, which follow prior genre-analytic practice, mean that moves occurring in around 70% of texts (e.g., Limitation at 71.7%) are read as conventional rather than field-wide requirements; different thresholds would shift that categorization and, with it, claims about disciplinary norms. Likewise, coder-agreement levels (intracoder κ = .76; intercoder κ = .87, with 92–94% agreement) support confidence in the robustness of the core patterns (e.g., the M3→M5→M7 backbone), but residual disagreement around less frequent or more implicit moves (e.g., Limitation, Positionality) cautions against over-interpreting their absence in sequence patterns. Taken together, these analytical settings both enable strong inferences about the backbone of Methods reporting and constrain generalizations about peripheral moves, which readers should interpret in that light.

Generally, these patterns foreground a disciplinary tension between standardization and identity in Methods writing. On the one hand, IMRD templates and journal checklists push authors toward uniform, replicable reporting (stabilizing sequences like M3→M5→M7); on the other hand, applied linguistics routinely requires context-sensitive narration and stance work (e.g., explicit site descriptions, ethics, and positionality) that exceed generic templates. The result is a negotiated Methods narrative in which some moves become compressed or displaced (e.g., ethics/positionality migrating to early context or late reflexive notes) to satisfy both auditability and disciplinary meaning-making. The results across different paradigms show this negotiation clearly. They help us see when similarities are due to reporting conventions and when differences point to unique disciplinary identities.

Compared to earlier studies, these findings both support and expand on previous genre analysis research. Moves 1 to 5 and 7 appear in almost every case, which matches Peacock's (2011) seven-move model and Hyland's (2009) focus on disciplinary norms. The usual placement of Limitation and Ethical Considerations moves also fits with Creswell and Plano Clark's (2011) who note that caveats are often found outside the main sequence in educational research. Similarly, Montgomery (2023) found that applied linguistics authors prefer to discuss methodological caveats in the Discussion section instead of the Methods. In the same way, the 25% rate for Researcher Positionality, which appears less often than the 40% reported by Finlay (2002), shows that reflexive disclosures are still mostly on the margins in SCOPUS-indexed applied linguistics Methods sections.

Two unexpected patterns emerged. First, even though Limitation moves are common, they never appeared in the main move sequences. This suggests that authors keep procedural descriptions and caveat discussions separate. Second, even when Researcher Positionality was included, it was never part of the main sequence, which highlights its minor role. These patterns probably reflect journal guidelines and peer-review standards that value clear procedures over reflexivity, as Hyland and Tse (2004) also observed in their study of academic writing.

Overall, this study contributes to genre analysis research by offering insights across different approaches into how ALRAMs are structured (Swales, 1990; Tardy, 2009). The results show that Methods sections are both structured and flexible, shaped by universal academic conventions and strategies specific to each research approach (Hyland, 2005; Peacock, 2011). For teaching, this study suggests that EAP instructors should help new writers understand both the required moves and the variations that come from different research traditions. Researchers who want to publish in international journals should also keep these rhetorical expectations in mind to make their methodological reporting clearer, more transparent, and more credible (Hyland, 2005; Swales & Feak, 2004).

By highlighting the common "M3→M5→M7" structure and the secondary role of caveats and positionality, this study supports Bhatia's (1993) idea of genre as social action and Berkenkotter and Huckin's (1995) focus on academic communities. Keeping Limitation and Positionality moves separate backs up Hyland's (2005) view that Methods sections are mainly about building author credibility through clear procedures, not personal reflection. Based on Andersen et al.'s (2014) work on how academic writing changes, the reduced focus on reflexivity may show a wider move toward standard reporting rules that stress replicability over the author's personal voice. Thus, theoretically, these findings underscore the tension between communal norms and individual stance in academic writing.

6. IMPLICATIONS

Overall, the findings refine theory, method, and pedagogy while yielding concrete classroom guidance. Theoretically, Methods writing in applied linguistics is best viewed as a negotiated practice that balances standardized auditability with discipline-specific meaning-making, and the status of moves (obligatory 100%; conventional 60–99%; optional <60%) is paradigm-sensitive rather than universal. Methodologically, it is recommended reporting explicit move-status thresholds alongside reliability metrics (e.g., percent agreement with κ) and, for mixed-methods work, coding QUAL and QUAN strands separately before describing integration to avoid undercounting hybrids. Pedagogically, instruction should cultivate "sequence literacy": teach the discipline's M3→M5→M7 backbone (Subjects/Materials → Procedure → Data Analysis) as the core scaffold, then adapt by approach—QUAL/MMR foreground context/site early with explicit ethical considerations/positionality, whereas QUAN foregrounds a transparent analysis pipeline (software, versions, decision thresholds, effect sizes) with justification. Instructors can model and diagnose move placement using annotated exemplars that show how moves are compressed, displaced, or iterated (e.g., ethical considerations/positionality placed early vs. late; M5 revisited during MMR integration), then have students audit their drafts against a concise move checklist and justify principled deviations.

7. CONCLUSION

This study has explored rhetorical move structures in the Methods sections of applied linguistics research articles (ALRAMs) published in SCOPUS-indexed journals, with a particular focus on cross-paradigmatic comparisons among qualitative (QUAL), quantitative (QUAN), and mixed-methods research (MMR) articles. Employing Peacock's (2011) move analysis framework, the study examined how often and in what order rhetorical moves and steps appeared. This showed both common conventions and unique reporting patterns influenced by research paradigms.

The findings showed that Moves 1 (Overview), 3 (Subjects/Materials), 5 (Procedure), and 7 (Data Analysis) were required in all research paradigms, confirming their key roles in methodological reporting. Moves 2 (Research Aims/Questions/Hypotheses), 4 (Location), 6 (Limitation), and 8 (Ethical Considerations) were considered standard, while Move 9 (Researcher Positionality) was optional and appeared more often in MMR articles. The analysis also found that QUAL articles focused on context, transparency, and reflexivity, while QUAN articles emphasized clear procedures and statistical analysis. MMR articles combined features from both QUAL and QUAN approaches. The order of moves reflected different research perspectives: QUAL and MMR articles often placed Moves 4 and 6 earlier to stress context and limitations, while QUAN articles put Moves 5 and 7 first to highlight experimental rigor and data processing.

This analysis used a focused set of 60 research articles, which may limit how much the findings apply to all applied linguistics publications. However, by including qualitative, quantitative, and mixed-methods studies, the patterns found reflect important trends across different research approaches. While it is important to be cautious about generalizing these results, the sample provides strong evidence of how rhetorical moves work in high-impact journals. This creates a solid base for future research to test and expand these findings with larger or more varied groups of articles. Some methodological limitations of this study should also be noted. It is possible that some communicative functions associated with certain moves, particularly Move 9 (Researcher Positionality) and aspects of Ethical Considerations, are realized outside the Method section (e.g., in the Introduction, separate "Context" or "Researcher role" subsections, or dedicated ethics statements). Because the present study intentionally focused on the Method section as conventionally demarcated in published articles, such instances were not coded as moves in our analysis. Future research could adopt a whole-article perspective to trace how methodological information and researcher reflexivity are distributed across sections, thereby complementing the section-bound approach taken here. Moreover, future research could explore move structures beyond Methods—such as Results and Discussion—or compare them across disciplines (e.g., TESOL vs. applied linguistics) and publication contexts (Q1 vs. lower-quartile, English vs. regional journals) to reveal field-specific conventions and global–local dynamics (Bhatia, 2004; Swales, 1990). Scholars might also examine step-level differences (e.g., sampling vs. materials) across paradigms (Cortazzi & Jin, 1996; Peacock, 2011), track the integration of reflexivity and ethical/limitation statements in Methods over time (Creswell & Plano Clark, 2011; Hyland, 2005), adopt expanded or hybrid move taxonomies (Bhatia, 2010), and employ multi-coder reliability to strengthen coding validity (Denzin & Lincoln, 2011).

DECLARATION

1. Conflict of interest
The authors declare no conflict of interest.

2. Generative AI and AI-assisted technologies in the writing process
During the preparation of this work, the authors used Grammarly Pro specifically to proofread and improve readability and grammatical correctness. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content, interpretation, and conclusions of this manuscript.

3. Data availability statement
The datasets analyzed during the current study were derived from research articles published in the following journals: *RELC journal*, *The Modern Language Journal*, *System*, *Studies in Second Language Learning and Teaching*, and *TESOL Quarterly*. Due to copyright restrictions of the original publishers, the full-text corpus cannot be shared publicly. However, the data processing records and linguistic analysis results are available from the corresponding author upon reasonable request.

4. Ethics statement
Not applicable as this study is based exclusively on published literature and does not involve human participants or personal data.

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6. Contributor Role Taxonomy (CRediT)
Wachirakiat Baothongchan: Conceptualization, Methodology, Writing – original draft

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REFERENCES

Alsharif, M. (2022). Rhetorical move structure in business management research article introductions. *Journal of Language and Linguistic Studies, 18*(4), 1268–1283.

Andersen, J., Bazerman, C., & Schneider, J. W. (2014). Beyond single genres: Pattern mapping in global communication. In E.-M. Jakobs & D. Perrin (Eds.), *Handbook of writing and text production* (pp. 305–322). Mouton de Gruyter. https://doi.org/10.1515/9783110220674.305

Anthony, L. (1999). Writing research article introductions in software engineering: How accurate is a standard model? *IEEE Transactions on Professional Communication, 42*(1), 38–46. https://doi.org/10.1109/47.749366

Basturkmen, H. (2012). A genre-based investigation of discussion sections of research articles in dentistry and disciplinary variation. *Journal of English for Academic Purposes, 11*(2), 134–144. https://doi.org/10.1016/j.jeap.2011.10.004

Bazerman, C. (1988). *Shaping written knowledge: The genre and activity of the experimental article in science*. University of Wisconsin Press.

Berkenkotter, C., & Huckin, T. N. (1995). *Genre knowledge in disciplinary communication: Cognition/culture/power*. Lawrence Erlbaum.

Bhatia, V. K. (1993). *Analysing genre: Language use in professional settings*. Longman.

Bhatia, V. K. (2004). *Worlds of written discourse: A genre-based view*. Continuum.

Bhatia, V. K. (2010). Interdiscursivity in professional communication. *Discourse and Communication, 4*(1), 32–50. https://doi.org/10.1177/1750481309351208

Biber, D., & Gray, B. (2016). *Grammatical complexity in academic English: Linguistic change in writing*. Cambridge University Press. https://doi.org/10.1017/CBO9780511920776

Bullock, O., Shulman, H., & Huskey, R. (2021). Narratives are persuasive because they are easier to understand: Examining processing fluency as a mechanism of narrative persuasion. *Frontiers in Communication, 6*, Article 719615. https://doi.org/10.3389/fcomm.2021.719615

Butler, M., & Spoelstra, P. (2023). Peer-reviewer responses to methodological reporting in applied linguistics articles. *Journal of Applied Linguistics, 12*(1), 45–68.

Cheng, A. (2019). Examining the "applied aspirations" in the ESP genre analysis of published research articles. *Journal of English for Academic Purposes, 38*, 36–47. https://doi.org/10.1016/j.jeap.2018.12.005

Cortazzi, M., & Jin, L. (1996). Cultures of learning: Language classrooms in China. In H. Coleman (Ed.), *Society and the language classroom* (pp. 169–206). Cambridge University Press.

Cotos, E., Huffman, S., & Link, S. (2017). A move/step model for methods sections: Demonstrating rigour and credibility. *English for Specific Purposes, 46*, 90–106. https://doi.org/10.1016/j.esp.2017.01.001

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Sage.

Cross, C., & Oppenheim, C. (2006). A genre analysis of scientific abstracts. *Journal of Documentation, 62*(4), 428–446. https://doi.org/10.1108/00220410610700953

Curry, M. J., & Lillis, T. (2019). Unpacking the lore on multilingual scholars publishing in English: A discussion paper. *Publications, 7*(2), 1–14.

Del Saz-Rubio, M. M. (2019). A contrastive genre-based approach to the rhetorical structure and use of interactional metadiscourse in the results and discussion section of Food Science & Technology Papers. *Miscelánea: A Journal of English and American Studies, 59*, 13–45.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The SAGE handbook of qualitative research* (4th ed.). Sage.

Doering, J. D., & Cooper, T. (2022). *Qualitative research: Understanding the meaning of social phenomena*. Sage.

Doró, K. (2013). The rhetoric structure of research article abstracts in English Studies Journals. *Prague Journal of English Studies, 2*(1), 119–139. https://doi.org/10.2478/pjes-2014-0013

Elsevier. (2023, March). *Scopus content coverage guide*. https://assets.ctfassets.net/o78em1y1w4i4/EX1iy8VxBeQKf8aN2XzOp/c36f79db25484cb38a5972ad9a5472ec/Scopus_ContentCoverage_Guide_WEB.pdf

Farhang-Ju, M., Zarei, G. R., & Zarei, H. (2024). Specificity and generality of lexical bundles in the rhetorical moves of Applied Linguistics research article introductions. *Journal of English for Academic Purposes, 48*, Article 100856. https://doi.org/10.1016/j.jeap.2024.101387

Finlay, L. (2002). Negotiating the swamp: The opportunity and challenge of reflexivity in qualitative research. *Qualitative Research, 2*(2), 209–230.

Flowerdew, J. (2012). *Discourse in English language education*. Routledge. https://doi.org/10.4324/9780203080870

Froehlich, D. E., Rehm, M., & Rienties, B. (2019). *Mixed methods research for improved scientific study*. Springer.

Geng, H., Lee, G. I., Jalaluddin, I., & Tan, H. (2023). Rhetorical moves of introduction sections in English linguistics research articles from two non-Scopus and two Scopus journals. *Theory and Practice in Language Studies, 13*(8), 2087–2096. https://doi.org/10.17507/tpls.1308.25

Gries, S. T. (2022). Toward more careful corpus statistics: Uncertainty estimates for frequencies, dispersions, association measures, and more. *Research Methods in Applied Linguistics, 1*(1), Article 100002. https://doi.org/10.1016/j.rmal.2021.100002

Hilpert, M., & Gries, S. T. (2009). Assessing frequency changes in multistage diachronic corpora: Applications for historical corpus linguistics and the study of language acquisition. *Literary and Linguistic Computing, 24*(4), 385–401. https://doi.org/10.1093/llc/fqn012

Hyland, K. (2002). Activity and evaluation: Reporting practices in academic writing. In J. Flowerdew (Ed.), *Academic discourse* (pp. 115–130). Longman.

Hyland, K. (2003). *Second Language Writing*. Cambridge University Press.

Hyland, K. (2004). *Disciplinary discourses: Social interactions in academic writing*. University of Michigan Press.

Hyland, K. (2005). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies, 7*(2), 173–192. http://dx.doi.org/10.1177/1461445605050365

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

Hyland, K. (2015). *Teaching and researching writing*. Routledge.

Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics, 25*(2), 156–177. http://dx.doi.org/10.1093/applin/25.2.156

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods, 18*(1), 3–20.

Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes, 24*(3), 269–292. https://doi.org/10.1016/j.esp.2004.08.003

Kanoksilapatham, B. (2015). Distinguishing textual features characterizing structural variation in research articles across three engineering sub-discipline corpora. *English for Specific Purposes, 37*, 74–86. https://doi.org/10.1016/j.esp.2014.06.008

Kasper, G., & Wagner, J. (2014). Conversation analysis in applied linguistics. *Annual Review of Applied Linguistics, 34*, 171–212. https://doi.org/10.1017/S0267190514000014

Li, Z., & Prior, M. (2022). Linking research questions to methodological choices in applied linguistics. *Language Teaching Research, 26*(4), 512–530.

Lim, J. M. H. (2006). Method sections of management research articles: A pedagogically motivated qualitative study. *English for Specific Purposes, 25*(3), 282–309. https://doi.org/10.1016/j.esp.2005.07.001

Lim, J. M. H. (2010). Commenting on research results in applied linguistics and education: A comparative genre-based investigation. *Journal of English for Academic Purposes, 9*(4), 280–294. https://doi.org/10.1016/j.jeap.2010.10.001

Liu, C., & Pan, F. (2024). Connecting lexical bundles and moves in medical research articles' Methods section. *Southern African Linguistics and Applied Language Studies, 42*(1), 111–127. https://doi.org/10.2989/16073614.2023.2226171

Loi, C. K., & Lim, J. M. H. (2019). Hedging in the discussion sections of English and Malay educational research articles. *GEMA Online Journal of Language Studies, 19*(1), 36–61. https://doi.org/10.17576/gema-2019-1901-03

Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human Communication Research, 28*(4), 587–604. https://doi.org/10.1111/j.1468-2958.2002.tb00826.x

Lorés, R. (2004). On RA abstracts: From rhetorical structure to thematic organisation. *English for Specific Purposes, 23*(3), 280–302. https://doi.org/10.1016/j.esp.2003.06.001

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage.

Montgomery, D. P. (2023). "This study is not without its limitations": Acknowledging limitations and recommending future research in applied linguistics research articles. *Journal of English for Academic Purposes, 65*, Article 101291. https://doi.org/10.1016/j.jeap.2023.101291

Moreno, A. I., & Swales, J. M. (2018). Strengthening move analysis methodology towards bridging the function-form gap. *English for Specific Purposes, 50*, 40–63. https://doi.org/10.1016/j.esp.2017.11.006

Paltridge, B., & Starfield, S. (2013). *The handbook of English for specific purposes*. John Wiley & Sons.

Peacock, M. (2011). The structure of the Methods section in research articles across eight disciplines. *Asian ESP Journal,* 7(2), 97–124.

Pho, P. D. (2008). Research article abstracts in applied linguistics and educational technology: A study of linguistic realizations of rhetorical structure and authorial stance. *Discourse Studies, 10*(2), 231–250. https://doi.org/10.1177/1461445607087010

Pranckutė, R. (2021). Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world. *Publications, 9*(1), Article 12. https://doi.org/10.3390/publications9010012

Rochma, A. F. (2025). Rhetorical analysis in scholarly texts: Insights into introduction and literature review patterns. *Journal on English as a Foreign Language, 15*(1), 317–341. https://doi.org/10.23971/jefl.v15i1.9095

Samraj, B. (2002). Introductions in research articles: Variations across disciplines. *English for Specific Purposes,* 21(1), 1–17. https://doi.org/10.1016/S0889-4906(00)00023-5

Sari, N. P., Azwandi, & Arsyad, S. (2022). Rhetorical moves in introduction sections of applied linguistic research articles of different SINTA's ranking. *Journal of English Education and Linguistics, 6*(1), 64–74.

Sheldon, E. (2011). Rhetorical differences in RA introductions written by English L1 and L2 and Castilian Spanish L1 writers. *Journal of English for Academic Purposes, 10*(4), 238–251. https://doi.org/10.1016/j.jeap.2011.08.004

Sithlaothavorn, J., & Trakulkasemsuk, W. (2016). A move analysis of research discussion section in English articles published in Thai and international journals. *rEFLections, 21*, 24–46.

Smagorinsky, P. (2008). The method section as conceptual epicenter in constructing social science research reports. *Written Communication, 25*(3), 389–411. https://doi.org/10.1177/0741088308317815

Sollaci, L. B., & Pereira, M. G. (2004). The introduction, methods, results, and discussion (IMRAD) structure: A fifty-year survey. *Journal of the Medical Library Association: JMLA, 92*(3), 364–367.

Sovann, L., Safnil, S., & Syafryadin, S. (2022). Rhetorical structure of method section: A comparative study on research articles written by Cambodian authors published in national and international journals. *English Education: Jurnal Tadris Bahasa Inggris, 15*, 168–192. https://doi.org/10.24042/ee-jtbi.v15i1.12072

Stemler, S. E. (2004). A comparison of consensus, consistency, and measurement approaches to estimating interrater reliability. *Practical Assessment, Research & Evaluation, 9*(1), Article 4. https://doi.org/10.7275/96jp-xz07

Suherdi, D., Kurniawan, E., & Lubis, A. (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

Suryawinata, V. Z., Kurniawan, E., & Lubis, A. H. (2023). A genre analysis of science and technology Scopus-indexed journal articles: Does impact factor project different rhetorical moves? *Journal of Linguistics, Literature and Language Teaching, 9*(1), 9–33. https://doi.org/10.32505/jl3t.v9i1.5563

Swales, J. M. (1981). *Aspects of article introductions*. The University of Michigan Press.

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

Swales, J. M. (2004). *Research genres: Explorations and applications*. Cambridge University Press.

Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills* (2nd ed.). University of Michigan Press.

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

Tardy, C. M. (2009). *Building genre knowledge*. Parlor Press.

Tardy, C. M. (2011). *Genre Analysis*. In K. Hyland & B. Paltridge (Eds.), *The continuum companion to discourse analysis* (pp. 54–68). Continuum.

Thompson, S. K. (2012). *Sampling* (3rd ed.). John Wiley & Sons.

Tulud, D. M. (2017). Probes on the rhetorical moves of research methods in research articles. *Asian EFL Journal,* 98, 16–26.

Tulud, D., & Mosquera, H. J. (2021). Methodology section of graduate school thesis manuscripts: A genre analysis probe of rhetorical structure. *Journal of English Language Teaching and Applied Linguistics, 3*, 36–52. https://doi.org/10.32996/jeltal.2021.3.9.4

Ulya, S. (2022). Rhetorical moves variations of research article discussion section published in reputable journals. *Premise: Journal of English Education and Applied Linguistics, 11*(3), 632–645. https://doi.org/10.24127/pj.v11i3.5615

Yang, R., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. *English for Specific Purposes, 22*(4), 365–385. https://doi.org/10.1016/S0889-4906(02)00026-1

Yaw, K., Plonsky, L., Larsson, T., Sterling, S., & Kytö, M. (2023). Research ethics in applied linguistics. *Language Teaching, 56*(4), 478–494. https://doi.org/10.1017/S0261444823000010

Yuvayapan, F., & Yakut, I. (2022). Functions of meta-discursive nouns: A corpus-based comparison of post-graduate genres in L1 and L2 English. *Cognitive Studies | Études cognitives, 22*, Article 2827. https://doi.org/10.11649/cs.2827

Zhang, Y., & Wannaruk, A. (2016). Rhetorical move structures in education research articles: A genre analysis approach. *Journal of Language Studies, 15*(2), 233–245.