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A Comparative Move Analysis of Methodology Sections of Pakistani Researchers Articles from Impact and Non-impact Factor Applied Linguistics Journals

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Abstract
This study examines the rhetorical organization and corpus-based linguistic patterns of methodology sections in Pakistani research milieu. The researchers analyzed articles published in Impact Factor Journals (IFJ) and Non-Impact Factor Journals (NIFJ)**.** The study aims to identify how methodology sections in the two journal categories differ in terms of move structure, methodological density, procedural elaboration, and linguistic realization. Using a comparative corpus-assisted genre analysis, the study applies Peacock's move analysis framework to methodology sections and integrates AntConc-based corpus evidence through wordlist, keyword, cluster, collocation, and concordance analysis. The corpus was divided into two sub corpora: IFJ methodology sections and NIFJ methodology sections. Each methodology section was manually coded according to Peacock's seven moves: Overview, Location, Research Aims/Questions/Hypotheses, Subjects/Materials, Procedure, Limitations/Delimitations, and Data Analysis. The corpus-assisted analysis was then used to support and validate the move-based findings. The results show that both IFJ and NIFJ methodology sections share a common rhetorical core, particularly through Subjects/Materials, Procedure, and Data Analysis moves. However, IFJ methodology sections are more methodologically dense, context-sensitive, and rhetorically elaborated. They include stronger attention to Location, sampling techniques, procedural clarity, validity, reliability, coding, and limitations. NIFJ methodology sections, by contrast, are more compact and systematically designed, often highlighting participants, sample, questionnaire, SPSS, frequency, and analysis with limited methodological justification. The study contributes to ESP, EAP, genre analysis, and academic writing pedagogy by showing how move analysis and corpus evidence can be integrated to examine publishable methodology writing.

Keywords: Research articles, Applied Linguistics, methodology section, move analysis, High-Impact Journals, Non-High-Impact Journals, rhetorical structure

Introduction

Writing research articles is one of the main ways of creating, checking and sharing knowledge in academic settings. The methodology section of a research article is important as it describes the methods used in the study, the data collection process, and the analysis of the data. A good methodology section does more than just explain how the research was conducted; it also provides a framework of credibility, transparency, and reliability for the research. Thus, methodology writing needs to be given special consideration particularly

in cases where the researchers intend to publish their works in renowned international journals.

It is necessary to study the structure of methodology sections of the articles published in Impact Factor Journals (IFJ) and Non-Impact Factor Journals (NIFJ) as they can have different rhetorical organization, methodological details and linguistic realization. Many researchers will include participants, instruments, procedure and data analysis, but sometimes these elements are not fully developed. Academic writers in particular, may provide information on *what was done* but may not sufficiently explain *why it was done* and *how methodological credibility was ensured*.

The rationale behind this study is the need for the integration of the two types of analysis, namely move analysis and corpus-assisted analysis. Peacock's move framework can be used to identify rhetorical functions of methodology sections, and corpus tools like AntConc can be used to detect lexical, keyword, cluster and concordance patterns that appear repeatedly. This integrated approach is backed by genre-based and corpus-based research which demonstrates that academic writing is influenced by the rhetorical structure as well as by the recurring linguistic patterns (Peacock, 2011; Dong & Lu, 2020). Furthermore, methods sections can be seen as important credibility building sections as they show rigour with explicit procedural and analytical detail (Cotos et al., 2017).

The findings of this study are important because they indicate the differences between IFJ and NIFJ research articles in terms of method and rhetoric. It can be useful for researchers in Pakistan, for academic beginners, and for post-graduate students to learn how to present the methodology part of their academic work for publication. The study also brings some benefits to the field of ESP, EAP and genre-analysis, as it demonstrates the way move analysis and corpus evidence can be joined to analyze the practices of academic writing.

Literature Review

One of the analytical methods that are widely used in English for Specific Purposes (ESP) and English for Academic Purposes (EAP) is genre analysis. It analyses the strategies used in the organization of texts for specific communicative goals in academic, professional or institutional settings. In academic writing research, genre analysis is particularly useful because research articles are not considered as neutral containers of information; rather, they are rhetorically structured texts influenced by the expectations of their discipline, conventions of their journal, and expectations of their reader(s) (Swales, 1990, 2004).

In this tradition, the research article has been a constant subject of study, for it is one of the most significant genres in which academic knowledge is created and disseminated. The different parts of a research article (introduction, methodology, results, discussion and conclusion) have different communicative functions. Each section features a collection of rhetorical moves that will enable the writer to accomplish a certain purpose. For instance, in the introduction, a research area is introduced and a gap is presented; in the methodology section, the methodology of the study is explained, how the data were collected, and how the analysis was conducted (Swales, 1990; Peacock, 2011).

Move analysis is the main aspect of genre analysis. A move is a functional unit of discourse that helps to achieve the communicative purpose of a text. In methodology sections, moves guide the writer to build methodological credibility that outlines the research design, participants or materials, procedures, limitations, and analysis methods. This is especially crucial since methodology sections are not just descriptive but also convincing readers that the study is valid, systematic, and trustworthy (Cotos et al., 2017; Gaddefors & Cunningham, 2024). Recent studies have continued to show that methods sections are important parts of research texts for establishing credibility, particularly when the author's methodological choices are deliberate.

Genre Analysis and Methodology Sections

The methodology section is one of the significant sections of a research article since it outlines the

foundation for which the findings of the research are obtained. The methodology section is well-developed and provides readers with information about the research methodology, data sources, participant selection, procedures, instruments, and analytical framework. It also supports readers in evaluating the validity, transparency and replicability of research.

The current work is especially applicable to the study conducted by Peacock (2011) as he focuses on the structure of Methods sections in eight disciplines. Peacock suggested that methodology sections could be broken down into the following seven steps: M1 Overview, M2 Location, M3 Research aims/questions/hypotheses, M4 Subjects/Materials, M5 Procedure, M6 Limitations, and M7 Data Analysis. This framework can be used because it reflects the descriptive and the rhetorical aspects of methodology writing. It can also be compared to other corpora, disciplines or journal types.

Cotos et al. (2017) also reinforced the research methodology in the methodology section by building a model of move/step in methods sections based on the concept of "Demonstrating Rigour and Credibility" (DRaC). Their study proves that research methods writing is not only in reporting what was done, but also it is a proof of reliability, validity and appropriateness of the method they chose (Cotos et al., 2017). This is to support the present study which focuses on the difference between methodology sections of Impact Factor Journals (IFJ) and Non-Impact Factor Journals (NIFJ), especially with regard to the elaboration and transparency of the methodology.

Recent studies also indicate that methodology sections should be carefully studied because novice and developing academic writers may be familiar with the technical aspects of methodology, but may not be as familiar with the rhetorical aspects of methodology. For instance, Hendrawan et al. (2022) analyzed the move and transitivity patterns of move and result and discussion sections, and concluded that this analysis will facilitate novice writers to understand the structure of the research article sections. Likewise, Gaddefors and Cunningham (2024) suggest that the qualitative methods sections should be written in such a way that the researcher's methodological engagement is made visible and not in the form of mechanical procedures.

Theoretical Framework

This study takes the theoretical approach of Swalesian genre analysis, Peacock's move analysis of methodology section and corpus-assisted genre analysis.

The theory for the larger context comes from Swales' genre theory. Swales (1990) says that genres are communicative events that are known to members of a discourse community. This implies that research articles are influenced by common expectations in the academic world. Rhetoric involves a set of patterns to be followed by writers, but not because these are rules to be obeyed, but because they enable the academic community to recognize the text as an acceptable research article. The dynamic, flexible and genre-dependent nature of research genres is further highlighted in Swales' (2024) subsequent work.

In this larger genre discussion, Peacock's (2011) model offers the specific model for analyzing methodology sections of introduction. The model used by Peacock is suitable for the current study because it directly deals with the Methods section and highlights the moves that are usually found in the Methods section. The methodology section of IFJ and NIFJ is compared using the Peacock's seven moves in the present study. The framework allows for a comparison of the rhetorical elements in both corpora and a comparison of the extent to which the rhetorical elements are realized.

The move analysis is reinforced by the corpus-assisted component which provides linguistic evidence. The Corpus analysis can be used to identify clusters, collocations, concordance patterns and frequent words and keywords. The features demonstrate the lexical and phraseological realization of rhetorical moves. Some words may signal a more component-based methodology style (e.g., participants, sample, questionnaire, SPSS, frequency) and others may signal greater elaboration in the methodology (e.g., validity, reliability, coding, interviews, observations, and theoretical orientation). This genre-based approach to genre analysis is therefore relevant since it allows to link rhetorical structure to some recurring linguistic features (Biber et

al., 1998; Dong & Lu, 2020).

This comprehensive solution is backed by the latest research. Dong and Lu (2020) show how useful it is to use a combined approach of corpus and genre for teaching genre competence in a particular discipline. Based on their research, they conclude that corpus evidence can be used to gain insights into the realization of rhetorical structures in authentic academic texts. Gong and Barlow (2022) also demonstrate that macrostructural patterns of research articles can be identified at a large scale in different disciplines through corpus analysis. The present study builds on these studies, which have supported the combination of move analysis and corpus evidence as used in this study.

Peacock's (2011) study continues to be one of the main empirical studies of research article methodology sections. Peacock analyzed Methods sections from eight disciplines and found that there are shared moves and that methodology writing is different in different disciplines. The study is important as it shows that methodology sections are not uniform in all subjects but can be rhetorically organized according to the conventions and research practices of the discipline. Peacock's framework is thus helpful for research that compares methodology sections of corpora, disciplines, or journal categories.

Cotos et al. (2017) built on this work and explored the ways that Methods sections show rigour and credibility. They use their DRaC model to point out the rhetorical nature of methodology writing, including contextualization of the study, description of procedures, and justification of methods. This is especially important for the present study as methodological credibility is also being compared between the IFJ and NIFJ methodology sections. When IFJ articles contain more information about sampling, coding, validity and reliability, as well as limitations, it suggests that the function of building credibility in writing methodology is realized more.

In particular, Hassan et al. (2023) are relevant, since their study was conducted with regard to the methodology section of English Linguistics and Literature articles written by researchers from Pakistan. They also use Peacock's framework, and report that important steps in methodology sections include subjects, location, procedure and data analysis. This is because the study is directly applicable for the current study as it offers a local point of reference in Pakistan. The present study, however, takes the study further by comparing the methodology sections of the IFJ and NIFJ corpora, as well as by combining corpus-assisted evidence with move analysis. The Hassan et al. article is cited in Critical Review of Social Sciences and Humanities and it explicitly employed Peacock's methodology-section model.

In addition, Hendrawan et al. (2022) make a contribution to the recent move-analysis studies by analyzing the method, result, and discussion parts of the research articles. Pedagogically oriented, their study demonstrates the use of move analysis to help novice writers comprehend the organization of the sections of research articles. This is helpful for the current study because the IFJ/NIFJ comparison has implications for pedagogies of research writing. It implies that writers must be familiar not only with the methodology moves needed, but how they can be developed rhetorically.

Empirical Studies on Corpus Based Genre Analysis

The use of Corpus-assisted genre analysis has grown in significance in EAP and ESP studies as it enables researchers to analyze the rhetorical patterns in terms of linguistic evidence. Corpus tools can discover common words, statistically significant words, clusters, and concordance patterns, in addition to manually reading the corpus. The patterns enable researchers to gain insight into the way academic writers regularly make methodological meanings.

Corpus-based genre pedagogy is a recent example provided by Dong and Lu (2020). Their study reveals that analysis of authentic research article texts can be used to build up the discipline-specific genre competence of learners using corpus-based genre analysis. This aligns with the present study's choice of using AntConc-type evidence in conjunction with move analysis. The corpus layer allows to determine if the difference in the frequency of moves is not the only difference between the IFJ and NIFJ methodology sections, but also

the language used to achieve the moves.

Gong and Barlow (2022) analyzed the macrostructure patterns of research articles in a large-scale corpus of 76,835 research articles from 26 disciplines. Their study shows that corpus methods can be used to show systematic organization patterns in research articles in disciplinary groups. While they do not study only methodology sections, their results show that it is possible to systematically study the organization of research articles by corpus-based techniques.

Flowerdew and Petrić (2024) are also pertinent in their critical review of the corpus-based pedagogic perspectives on thesis writing. While they are thesis writers, their argument also works for research article methodology writing: corpus-informed pedagogy can help writers gain insight of the expectations of the genre and can help them go beyond surface-level imitation. This is significant for the present study as NIFJ methodology sections tend to be more formulaic and component-based. By looking at the methodology section of the research paper, writers can gain awareness of how to make the section stronger, explain their work, and offer analytical transparency.

Research Gap

The literature reviewed indicates that research article writing has been widely studied using the genre analysis, the move analysis and the corpus-assisted approaches. Peacock (2011) offers a helpful framework for methodology-section moves, and Cotos et al. (2017) illustrate the ways that methods sections exhibit rigour and credibility. Other recent research, including that of Dong and Lu (2020), Gong and Barlow (2022), Hendrawan et al. (2022), Flowerdew and Petrić (2024), and Gaddefors and Cunningham (2024), also underscores the importance of corpus and genre-based studies in the field of academic writing research.

However, there remains a need for focused comparative work on methodology sections in Impact Factor Journals and Non-Impact Factor Journals, particularly in Pakistani English linguistics and applied linguistics research writing. Existing studies have examined methodology moves, research article macrostructures, and corpus-informed pedagogy, but fewer studies compare journal categories while integrating Peacock's move framework with AntConc-style corpus evidence. The present study addresses this gap by examining how methodology sections in IFJ and NIFJ corpora differ in rhetorical organization, methodological density, contextualization, and linguistic realization.

Research Questions

1. What rhetorical move structures are employed in the methodology sections of high-impact and non-high-impact Applied Linguistics research articles written by Pakistani scholars?
2. What move cycles and move patterns occur in the methodology sections of the selected datasets?
3. What is the frequency and distribution of moves and steps in the selected methodology sections?

Research Methodology

In this study, comparative corpus-assisted genre analysis was used to compare the methodology sections of research articles in Impact Factor Journals (IFJ) and Non-Impact Factor Journals (NIFJ). It is predominantly a qualitative study because the main analysis was identifying and interpreting rhetorical moves in methodology sections. It also involved a quantitative corpus-assisted approach involving frequency, keyword, cluster, collocation and concordance analysis. Thus, the study was conducted in an integrated way of move analysis and corpus-assisted design.

The genre-analysis part of the study was adapted from the framework developed by Peacock (2011) in analysing Methods sections of research articles. The corpus-assisted component was conducted using the word list generation, keyword generation, cluster generation, collocate generation, and concordance line generation functions of AntConc. The reason for using AntConc is that it is a tool that is suitable for the systematic study of lexical frequency, keyness, phraseological patterns, and concordance evidence in

corpora.

Data Source and Corpus

The data was extracted from two source files, the IFJ corpus and the NIFJ corpus, which contained methodology sections. The methodology section in the IFJ corpus comprised the methodology sections of research articles published in impact factor journals, and the NIFJ corpus comprised the methodology sections of research articles published in non-impact factor journals.

The methodology section was selected as the unit of analysis because it is the part of a research article where authors present the research design, participants or materials, data-collection procedure, limitations, and analytical method. It is also the part of the paper where methodological credibility, transparency and research rigour are most clearly built.

Sampling Procedure

Purposive sampling technique was employed with a criterion. Articles were selected if they had a clearly identifiable methodology, methods, or research design section; belonged to English linguistics, applied linguistics, ELT, EAP/ESP, sociolinguistics, language education, or related language studies; were written in English; and were already categorized in the source files as either IFJ or NIFJ. The methodology sections were only extracted for analysis.

The final data set was split into two similar subcorpora: the IFJ methodology corpus and the NIFJ methodology corpus. Each methodology section was analysed as a single text for the corpus processing and as a single case for the move analysis.

Corpus Preparation

The methodology sections were cleaned and prepared for AntConc prior to analysis. Each section was separated from the article extract and saved in plain-text format. Where necessary, non-analytical material, including journal labels, article codes, page headers and unrelated formatting marks, have been removed. Two separate folders were created: one for IFJ texts and one for NIFJ texts. Both corpora were cleaned using the same method for consistency. The original wording of the methodology sections was retained because the purpose was to examine authentic methodological language.

Analytical Framework

Peacock's (2011) seven-move framework was used as the main analytical model. The seven moves were:

Move	Label	Function
M1	Overview	Introduces the research design or methodological orientation
M2	Location	Identifies the geographical, institutional, or contextual setting
M3	Research aims/questions/hypotheses	States or restates the purpose, questions, or hypotheses
M4	Subjects/materials	Identifies participants, samples, texts, corpora, or materials
M5	Procedure	Explains data collection, instruments, and research steps
M6	Limitations/delimitations	Marks boundaries, constraints, exclusions, or scope

M7	Data analysis	Explains analytical procedures, coding, statistical treatment, or interpretation

This framework was chosen because it is specifically designed for the rhetorical organization of research article Methods sections and enables systematic comparison of IFJ and NIFJ methodology writing.

Move Coding Procedure

The move analysis was conducted manually at sentence and clause level. The methodologies were read carefully and each meaningful unit was allocated to one of Peacock's seven moves. If a unit served more than one rhetorical function, the most prominent one was coded. The frequencies of the coded words were computed individually for the two corpora, IFJ and NIFJ. Opening moves, closing moves, dominant move sequences and weakly realized or missing moves were also determined. This procedure facilitated the identification of the rhetorical structure, methodological elaboration, and transparency of the two corpora.

AntConc-Based Corpus Analysis

The move analysis was validated by corpus-assisted analysis. It was not analyzed in its own right, but rather was used as a linguistic basis for interpreting move-based patterns. The following five AntConc procedures were used.

The first one was word-list analysis, which revealed some common methodological terms like *data, participants, sample, questionnaire, interviews, analysis, SPSS, coding, validity,* and *reliability.*

Second, the two comparisons of IFJ vs. NIFJ and NIFJ vs. IFJ were performed by keyword analysis to obtain statistically significant words in the two corpora.

Third, the phrases that were repeated were identified through cluster analysis, including *data were collected*, *qualitative content analysis*, and *medium of instruction*.

Fourth, collocation analysis was conducted on some nodes such as *data*, *participants*, *sample*, *questionnaire*, *interviews*, *sampling*, and *analysis*.

Fifth, concordance analysis was used to analyze selected keywords and collocates in context to determine whether the authors simply mentioned a method or gave the reason and procedure of a method.

Integration, Trustworthiness, and Limitations

The move and corpus analysis were combined in the interpretation process. The rhetorical functions were identified by Peacock's framework and the evidence for them was linguistically realised by AntConc. A fixed coding scheme for both corpora and cross-checking the manual move interpretation with corpus evidence strengthened the reliability. The findings of the study are specific to the selected IFJ and NIFJ methodology sections and cannot be generalized to all journals.

Findings of the Study

The methodology sections of the Impact Factor Journals (IFJ) corpus and Non-Impact Factor Journals (NIFJ) corpus have been analyzed in this section. The analysis is based on Peacock's move analysis framework and AntConc-style corpus evidence such as word-list, keyword, cluster, collocation and concordance patterns. The main analytical model is Peacock's and the corpus evidence is used to support the interpretation of rhetorical patterns. The IFJ file contains methodology sections that provide detailed information about the Location, sampling, data sources, instruments, interviews, observations, validity, reliability, coding, and thematic analysis. The NIFJ file often contains methodology sections that mention research design, sample, questionnaire, SPSS, corpus selection, qualitative content analysis and textual analysis.

Corpus Profile and Methodological Density

Table1

Corpus Profile of the IFJ and NIFJ Methodology Corpora

Corpus	No. of Methodology Sections	Tokens	Types	Type-Token Ratio	Mean Section Length	Median Section Length
IFJ corpus	20	15,630	2,879	18.42%	781.50 words	688 words
NIFJ corpus	20	6,836	1,638	23.96%	341.80 words	341 words

Note. IFJ = Impact Factor Journals; NIFJ = Non-Impact Factor Journals.

The methodological density is apparent in the corpus profile. There are 15,630 tokens in the IFJ corpus and 6,836 tokens in the NIFJ corpus. This implies that the IFJ methodology sections are over twice the length of the NIFJ methodology sections. This difference is also reflected in the mean section length, which is 781.50 words for IFJ sections and 341.80 words for NIFJ sections.

This disparity indicates that IFJ articles dedicate more words to the explanation of the method. Typically, IFJ methodology sections include detailed descriptions of Location, participant selection, sampling rationale, instruments, field methods, validity, reliability, and analysis. The NIFJ corpus, on the other hand, shows methodology in a more condensed format which sometimes involves stating the research design, sample, instrument, and method of analysis.

The NIFJ corpus has a higher TTR. This should not be considered as an indication of lexical richness, however, as the type-token ratio is influenced by the size of the corpus. Since the NIFJ corpus is shorter, its higher TTR is expected. The IFJ corpus is larger and thus includes methodological words that appear more than once in the corpus, e.g. data participants, students, questionnaire, interviews, sampling, and analysis.

Distribution of Peacock's Moves Across IFJ and NIFJ Corpora

Table 2

Frequency of Peacock's Methodological Moves Across the IFJ and NIFJ Corpora

Peacock Move	IFJ Occurrence	IFJ %	NIFJ Occurrence	NIFJ %
M1 Overview	18/20	90%	20/20	100%
M2 Location	16/20	80%	15/20	75%
M3 Research aims/questions/hypotheses	12/20	60%	15/20	75%
M4 Subjects/materials	20/20	100%	20/20	100%
M5 Procedure	17/20	85%	17/20	85%
M6 Limitations/delimitations	13/20	65%	6/20	30%
M7 Data analysis	17/20	85%	16/20	80%

Note. Percentages are based on 20 methodology sections in each corpus.

The move-frequency results demonstrate the rhetorical commonality of both the IFJ and NIFJ methodology

sections. The most consistent move is that of M4 Subjects/materials which is found in all 20 methodology sections across both corpora. This means that the identification of participants, samples, corpora, texts or data sources is considered as a mandatory component of methodology writing in both categories of journals. M5 Procedure and M7 Data analysis are also highly frequent in both corpora. M5 occurs in 85% of both IFJ and NIFJ methodology sections, while M7 occurs in 85% of IFJ and 80% of NIFJ methodology sections. This indicates that in general, both corpora provide information about data collection and analysis. But the difference is the depth of realization. IFJ articles tend to be more explanatory in sequential and evaluative ways about methodological decisions, while NIFJ articles tend to be more succinct.

The most obvious difference is in M6 Limitations/delimitations. This move occurs in 65% of IFJ methodology sections but only 30% of NIFJ methodology sections. This indicates that IFJ authors are more likely to recognize boundaries, constraints, exclusions, or limitations in methodological design. In NIFJ articles, the limitations are more likely to be implicit, such as in terms of convenience sampling, limited sites, or selected texts, but not necessarily presented as methodological boundaries.

Move-by-Move Analysis with Corpus Evidence

M1 Overview: Stating the Research Design

M1 Overview provides an overview of the methodological orientation of the study. It typically comes in the form of phrases like this study adopted, this research used, the study employed, or the research design was. This move is included in 90% of IFJ methodology sections and 100% of NIFJ methodology sections.

M1 is particularly direct in the NIFJ corpus. The first step in authors' naming of the design is usually to call it qualitative, quantitative, mixed-method, descriptive survey, corpus-based, or textual analysis. This pattern is corroborated by the corpus evidence. In the NIFJ corpus, the normalized frequencies of the qualitative form are higher than in the IFJ corpus (3.07/1,000 words vs. 1.47/1,000 words). Likewise, the category mixed/methods/methodology is found at 5.41 per 1,000 words in NIFJ and 4.35 per 1,000 words in IFJ.

This indicates that the authors of NIFJ tend to explicitly state the methodological design at the start of the methodology section. M1 is also common in IFJ articles, but it is often included as part of a larger description of the research context, data collection, or theory. So, the methodology sections in IFJ papers are not just a statement of design, but may place it in a larger research context.

M2 Location: Contextualizing the Research Site

M2 Location is the geographical, institutional, or sociocultural context in which the study takes place. It is found in 80% of IFJ and 75% of NIFJ methodology sections. The difference in frequency is minor, but the rhetorical realization is quite different. The IFJ corpus demonstrates a greater inclination to use location as a contextual and methodological tool. A number of IFJ sections refer to locations within the context of multilingual settings, school systems, policy contexts, or sociolinguistic realities. This is also reflected in the keyword list of IFJ, which shows that policy, schools, Urdu, elite, school, planning, orientation, national, local, languages, and education are the top keywords. For instance, policy is mentioned 42 times in IFJ and not a single time in NIFJ, while the word schools is mentioned 50 times in IFJ and only 3 times in NIFJ, and the word languages is mentioned 45 times in IFJ and 5 times in NIFJ.

The keywords reveal that the methodology sections in IFJ tend to build location beyond place. The location is used to explain the methodological significance of the site. In contrast, NIFJ articles frequently refer to location by city name, university or institutional label, and the context for the mention of location is generally less well developed.

M3 Research Aims, Questions, or Hypotheses

M3 occurs in 60 percent of the IFJ methodology sections and 75 percent of the NIFJ methodology sections. This move is applied to restate the purpose, aim, research questions, or hypotheses of the study in the

methodology section.
The higher frequency in NIFJ suggests that NIFJ methodology sections often follow a textbook-like pattern in which research questions are explicitly repeated before the description of participants or instruments. Within the NIFJ corpus, there are a few examples where the methodology portion shifts from research aim to research questions and then to data collection. The keyword evidence is used to support this object focused pattern. NIFJ methodology sections often repeat the purpose of the study and what is being studied by using NIFJ keywords like research, section, model, selected, ESL, EFL, undergraduate, lexical, moves, and essays.
Aims and questions are less likely to be re-stated in methodology in the IFJ corpus as they may have been set within an introduction or literature review. M3 is typically mentioned in the context of the explanation for a design, data source, or coding category rather than as a stand-alone list in IFJ text.

M4 Subjects/Materials: Identifying Participants, Texts or Corpora

The only move that is present in 100% of both corpora is M4 Subjects/materials. This helps to establish its mandatory nature in methodology writing. In empirical study this move is exhibited in the participants, respondents, teachers, students, principals, or groups of institutions. For textual and corpus-based studies, it may be manifested in research articles, essays, literary pieces, corpora, policy documents, or any sample of text.
This step is substantiated by the word-list evidence. The result for the grouped category (participants/respondents) is 3.97 per 1,000 words in IFJ and 6.29 per 1,000 words in NIFJ. The category students/learners appear at 7.29 per 1,000 words in IFJ and 10.97 per 1,000 words in NIFJ. Likewise, sample/sampling is used at 1.86 per 1,000 words in IFJ and at 4.68 per 1,000 words in NIFJ.
These frequencies illustrate the increased prominence of participants and samples within NIFJ methodology sections. But the more frequent doesn't necessarily indicate the more detailed methodological explanation. Instead, NIFJ authors tend to mention the sample in several places, and IFJ authors tend to link the participants with sampling, research context, and data collection methods.
The cluster evidence also highlights this contrast. In NIFJ, clusters favour demographic and institutional categorizations such as undergraduate ESL learners, ESL teachers (both male and female) and public and private. In IFJ, institutional and sociolinguistic context is provided by means of clusters of teachers and school principals, students teachers and school, and low-fee English-medium private schools.

M5 Procedure: Reporting Data Collection

M5 Procedure is represented in 85% of both corpora. This move illustrates how the study was conducted, how data were collected, and how instruments were used. Both corpora have the same frequency but the elaboration of the procedure is different.
Sequential or multi-method procedure is more evident in the IFJ corpus. Commonly, the IFJ methodology sections involve administration of questionnaires, interviews, classroom observations, piloting, transcription, coding, and triangulation. This is reflected in corpus evidence. The number of interview(s) per 1000 words in IFJ (3.52 per 1,000 words) is higher than the number of interviews per 1000 words in NIFJ (2.49 per 1,000 words). In contrast, there are 1.15 observations per 1,000 words in IFJ, while there are only 0.44 observations per 1,000 words in NIFJ.
The difference is also borne out by the collocation patterns. In IFJ, data collocates with sources, collection, qualitative, methodology, and analysis while in NIFJ, data occurs more frequently with the terms collection, collected, students, analysis, and quantitative. This implies that in general, IFJ authors are more likely to classify and explain data sources, while NIFJ authors prefer to report data collection in short declarative form.
The sequence in which you describe a procedure is a narrative sequence in IFJ methodology sections.

Authors describe the sequence of events and how the data were afterwards analyzed. When writing methodology sections in NIFJ, it is common to make procedure brief, such as: Data were collected using questionnaires, and analyzed using SPSS.

M6 Limitations/Delimitations: Marking Methodological Boundaries

The least frequent move in both corpora is M6, with a big gap between IFJ and NIFJ. It is present in 65% of the IFJ methodology sections and 30% of NIFJ methodology sections. This indicates that the methodological boundaries are more likely to become apparent in an IFJ article.

In the IFJ corpus, limitations and delimitations appear through explanations of the selection of location, participant access, sampling constraints, instrument validation, research scope, and exclusion criteria. The corpus evidence supports this. The grouped category *validity/reliability* appears at 1.60 per 1,000 words in IFJ, compared with 0.88 per 1,000 words in NIFJ. The IFJ corpus also contains stronger collocational links between *sampling* and terms such as *probability*, *random*, *purposive*, and *representativeness*. These terms indicate a greater concern with methodological boundaries and research credibility.

Delimitations are usually included in the NIFJ methodology sections but not thoroughly discussed. For instance, convenience sampling, purposive sampling, selected universities or selected texts may be referred to in articles, but that does not necessarily mean that it is a restriction to generalizability or scope. This reduces the evaluative power of the methodology section since it provides less information for the readers about how the research boundaries influence the findings.

M7 Data Analysis: Explaining Analytical Procedure

The findings indicate that 85% of the methodology sections in IFJ and 80% of the methodology sections in NIFJ contain data analysis. Authors in both corpora thus consider it essential to explain the analysis of the data but there are varying levels and forms of reporting.

The NIFJ corpus has a higher normalized frequency for analysis/analyzed/analysed (8.05 per 1,000 words) than IFJ (3.71 per 1,000 words).

The NIFJ corpus has a higher normalized frequency for *analysis/analyzed/analysed*, with 8.05 per 1,000 words, compared with 3.71 per 1,000 words in IFJ. This suggests that NIFJ authors frequently name analysis explicitly. However, the concordance pattern shows that this is often done through short statements such as *data were analysed through SPSS*, *frequency and mean values were calculated*, or *thematic analysis was used*.

The IFJ corpus does have stronger frequencies for coding/coded/codes, however, with 1.92 per 1,000 words as opposed to NIFJ's 0.73 per 1,000 words. This is important since coding vocabulary suggests more explicit description of analytical procedures, particularly in qualitative and mixed-method studies. IFJ articles are more likely to describe how interviews were transcribed, how data was coded and how themes were developed and how reliability was verified.

The cluster evidence also supports this interpretation. IFJ clusters such as *research focus and theoretical*, *research methodology and data*, *methodology and data sources*, and *data were collected* suggest a more systematic display of analytical categories. NIFJ clusters such as *the data was*, *data collection and*, *qualitative content analysis*, and *questionnaire was,* show a more extensive reporting approach.

Dominant Move Pattern and Integrated Interpretation

The dominant move pattern across both corpora can be represented as follows:

M1 Overview → M4 Subjects/Materials → M5 Procedure → M7 Data Analysis

This pattern of movement is seen in the way that both the IFJ and NIFJ methodology sections typically start from the statement of research design to participants or materials, then to data-collection procedure, and

finally to data analysis. Corpus evidence confirms this pattern because the most frequent methodological vocabulary in both corpora relates to *research*, *data*, *participants*, *students*, *questionnaire*, *sample*, *methodology*, and *analysis*.

This pattern of movement indicates that both the IFJ and NIFJ methodology sections typically start from the statement of research design. This explanation is supported by the occurrence of keywords such as *policy*, *schools*, *local*, *languages*, *education*, *orientation*, and *planning*, as well as by higher frequency rates of *interviews*, *observations*, *coding*, and *validity/reliability*. These patterns elucidate that IFJ methodology sections construct credibility through contextualization, triangulation, procedural sequencing, and analytical transparency.

IFJ methodology sections, on the other hand, tend to be linear and succinct. They give due importance to M1 Overview and M4 Subjects/materials, but the supporting details are often missing. The greater frequencies of *participants/respondents*, *students/learners*, *sample/sampling*, *corpus/corpora*, *SPSS*, *frequency/percentage*, and *analysis* indicate that NIFJ articles elaborate the methodological components. They identify who participated, what was selected, which instrument was used, and how data were processed. However, these components are not always supported by ample justification.

The integrated move and corpus analysis therefore suggests that the difference between IFJ and NIFJ methodology sections is not merely quantitative. It is also rhetorical. IFJ methodology sections are longer, more context-sensitive, and more appraising. They tend to answer both what was done and why it was done in that way. On the other hand, NIFJ methodology sections try to answer mainly what was done, often through brief statements of research design, sample, instrument, and analytical tool.

Discussion

The first major finding is that IFJ methodology sections are longer and more methodologically dense than NIFJ methodology sections. IFJ articles provide more room for location, sampling technique, instruments, data collection, coding, validity, reliability, and analytical procedures. This indicates that the methodology sections in IFJs serve not just as procedural reports, but also credibility-building sections. This aligns with the view of Cotos et al. (2017) that Methods sections are rigorous and convincing when they are explicit about methods and procedures and aligns with the view of Gaddefors and Cunningham (2024) that good methods writing should make the researcher's methodological choices apparent.

The second is that both the methodology sections of the IFJ and NIFJ have a common rhetorical core, particularly in M4 Subjects/Materials, M5 Procedure, and M7 Data Analysis. In the two categories of journal, writers are aware of the basic communicative expectations for methodology writing; they name the source of data, describe the procedure, and describe the analysis. Subject, procedure, and data analysis are all three central methodological moves, as identified by Peacock's (2011) cross-disciplinary study of methods. This is also in line with a study conducted by Hassan et al. (2023) on research articles published in Pakistan where the moves of methodology section, namely subjects, procedure, data analysis, and location were found to be prominent.

The third finding is that methodology sections in IFJ documents are more well contextualized than NIFJ methodology sections. This can be seen in some of the very common terms used like policy, schools, local languages, education, Urdu, medium of instruction etc. These terms refer to the fact that the authors of IFJ depict the researched location not just as a geographical place but also as a sociolinguistic, educational and institutional space. Research by Gong and Barlow (2022) indicate that the macrostructures of research articles vary in different disciplines and are influenced by disciplinary expectations, and Dong and Lu (2020) indicate that disciplinary and contextual meanings may be correlated with rhetorical structures through corpus-based genre analysis.

The fourth is that NIFJ methodology sections are more formulaic and component based. They often refer to sample, participants, the questionnaire, the corpus, SPSS, the frequency, percentage, and analysis but

without adequate justifications. This is an indication that NIFJ methodology writing is more literal in addressing what was done than why it was done in that way. According to Flowerdew and Petrić (2024), teaching academic writing at university level should aim to help the writers to understand the expectations of each academic writing genre, and not to reproduce the simple patterns. Likewise, Hendrawan et al. (2022) reveal that move analysis could be applied to make novice writers aware of the rhetorical organization of the sections of research articles.

The final finding is that Peacock's move analysis can be combined with the evidence obtained from the corpus using AntConc to enhance the interpretation of methodological differences between IFJ and NIFJ articles. Move analysis is used to identify the rhetorical function of methodology sections, while corpus evidence is used to show how these functions are realized linguistically by the keywords, clusters, collocations and concordance patterns. This integrated approach is corroborated by Dong and Lu (2020) who demonstrate the benefit of applying both corpus-based and genre-based approach and by Gong and Barlow (2022) whose large-scale corpus study suggests that corpus-based approach can be employed in the systematic examination of the rhetorical structure of research articles.

Conclusion

The study concludes that methodology sections in Impact Factor Journals (IFJ) and Non-Impact Factor Journals (NIFJ) have a common rhetorical ground; nevertheless, they are significantly different in terms of methodological density, rhetorical elaboration and linguistic realization, as reflected in the high frequency of the use of Subjects/Materials, Procedure, and Data Analysis moves. IFJ methodology sections tend to be longer, more context sensitive, and more transparent, including more complete descriptions of location, sampling, data-collection procedures, validity, reliability, coding, limitations, and data analysis. In contrast, the methodology sections in NIFJ are shorter, often identifying participants, samples, questionnaires, SPSS, frequency and analysis without longer methodological justification. Peacock's move analysis combined with the findings of the corpus analysis using AntConc indicates that the difference between IFJ and NIFJ methodology writing is structural, rhetorical and linguistic. In general, the study emphasizes that a publishable methodology paper is more than simply a collection of methodological features; it is about explanation, justification, transparency of procedure, and credibility of analysis.

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