Foreign Language Instruction Probe
Vol. 5, No. 2, November 2026
https://jurnal.stit-buntetpesantren.ac.id/index

DOI: https://doi.org/10.54213/flip.v5i2
p-ISSN: 2830-5949
e-ISSN: 2830-4837

Clear Yet Hollow? Evaluating the Critical-Component Gap Between Structure and Novelty in Abstracts of Scopus-Indexed Journals

Muhammad Bambang Purwanto[1*]
Universitas Palembang, Indonesia
bambang.purwanto@unpal.ac.id

Ismail Nasar[2*]
Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia[2]
nasarismail8@gmail.com[2]

Ahmad Walela[3]
Universitas Baliem Papua, Indonesia[3]
Jhonwalela1985@gmail.com

Heronimus E.A. Wejang[4]
Universitas Katolik Indonesia Santu Paulus Ruteng, Indonesia
heronimuswejang@gmail.com

Alecia Marie Magnifico[5]
University of New Hampshire, USA
aleciamr.magnificio@unh.edu

Received: 08 June 2026
Revised: 05 July 2026
Accepted: 25 November 2026

Corresponding author:
Umar, STIT Buntet Pesantren Cirebon, Indonesia

Abstract

Despite growing pressure to publish in Scopus-indexed journals, many research abstracts still fall short of international quality standards. This study investigates the extent to which seven critical abstract components — clarity, structure, conciseness, relevance, keyword usage, novelty statement, and contribution clarity — are fulfilled in academic publications. Using systematic review and content analysis guided by PRISMA 2020, 25 articles from Scopus, Web of Science, and Sinta (2018–2025) were evaluated through a validated five-point Likert rubric and inter-rater reliability assessment. Results show that while clarity (96%) and structural adherence (88%) were strongly achieved, novelty articulation (68%) and research objective clarity (72%) were the most underdeveloped components, revealing a persistent disconnect between well-structured writing and meaningful scholarly contribution. Quality categorization further identified that 40% of abstracts reached high-quality standards, while 24% remained below acceptable thresholds. The study proposes a systematic evaluative framework to support academic writing development and elevate publication readiness across institutions.

Keywords: *Abstract quality, academic writing, Scopus indexing, IMRaD framework, systematic content analysis*

To cite this article (APA 7th Edition): Purwanto et al. (2026). Clear Yet Hollow? Evaluating the Critical-Component Gap Between Structure and Novelty in Abstracts of Scopus-Indexed Journals. *Foreign Language Instruction Probe*. https://doi.org/10.54213/flip.v5i2

Copyright © 2024 The Author(s). This is an open access article is distributed under the terms of the Creative Commons Attribution (CC-BY-NC) 4.0 international license. (https://creativecommons.org/licenses/by-nc/4.0)

Introduction

The abstract functions as a critical gateway in scientific communication, serving as the first—and often the only—component read by editors, reviewers, and researchers before deciding to engage with a full manuscript. As the "window" of the study, it encapsulates the essential elements of research, including background, methods, results, and conclusions, shaping the reader's perception of both the rigor and relevance of the work. (Hunt et al., 2020). However, several studies indicate that many abstracts, particularly from developing academic systems, still fail to meet international standards of clarity, completeness, and structure. (Jameel, 2023) . Empirical assessments of abstracts in non-indexed or regionally indexed journals reveal recurring issues, including missing novelty statements, ambiguous research objectives, and inadequate methodological summaries, all of which hinder the paper's discoverability and scholarly impact. (Oktaviani et al., 2024).

In contrast, Scopus-indexed journals emphasize standardized frameworks such as the IMRaD structure and the inclusion of strategic keywords to improve retrieval accuracy and citation visibility. (McKenna, 2024). Expectations associated with abstracts in Scopus-indexed journals commonly emphasize clarity, structural coherence, relevance, and explicit scholarly contribution; however, these features should be understood as characteristics of high-quality scholarly communication rather than as a single formal Scopus abstract rubric. (Baas et al., 2020). Comparative studies between Scopus and non-indexed journals further confirm that structural adherence and abstract quality are strong predictors of publication success and readership engagement. (Anievas, 2025). Consequently, enhancing the quality of abstracts through standardized evaluative frameworks is essential not only for improving manuscript acceptance rates but also for strengthening the global visibility and credibility of scholarly work.

Despite the growing emphasis on research publication standards, a significant gap persists between how many researchers write their abstracts and the expectations of international journals. Numerous studies have shown that many manuscripts are rejected at the preliminary screening stage due to poorly structured, ambiguous, or incomplete abstracts that fail to meet the clarity, structure, and novelty criteria required by Scopus and other indexed databases. (Paudel, 2024). A key issue is the lack of systematic frameworks to guide authors in incorporating critical components, such as concise research objectives, contextual justification, and methodological transparency. (Budiyono & Fadhly, 2023). Moreover, while international journals have increasingly adopted the IMRaD structure to improve readability, many locally published abstracts still exhibit inconsistencies in rhetorical organization and coherence. (Oktaviani et al., 2024).

The limited availability of evaluative tools and the absence of explicit institutional guidelines exacerbate this issue, leaving authors with insufficient feedback mechanisms to gauge the quality of their writing. (Wald et al., 2023). Although some educational institutions have attempted to address this through academic writing support centers, the approaches often remain fragmented and lack theoretical grounding in systematic evaluation principles. (Bacharova, 2017). Therefore, this research identifies a critical need for a comprehensive, systematic evaluative model that integrates linguistic, structural, and conceptual elements of abstract writing, thereby bridging the persistent gap between local writing practices and the rigorous standards of international academic publishing. (Hunt et al., 2020).

This study aims to systematically evaluate the critical components that define the quality of research abstracts and assess their alignment with international publication

standards, particularly those applied by Scopus-indexed journals. The primary objectives are to identify and analyze the essential components of well-constructed abstracts—such as clarity, structure, conciseness, relevance, keywords usage, novelty statement, and research objective clarity—and to develop an evaluative framework that can serve as a standardized reference for academic writing improvement. Furthermore, the research aims to determine which of these components most significantly influence manuscript acceptance and visibility in high-impact journals. To achieve these goals, the study addresses two central research questions: (1) What are the critical components that characterize high-quality abstracts in accordance with Scopus standards? Moreover, (2) How can a systematic evaluative approach be effectively applied to enhance the overall quality, coherence, and publication readiness of research abstracts? By answering these questions, the study aims to offer both theoretical insights and practical implications for researchers, educators, and academic institutions seeking to meet international publication standards.

This study holds substantial significance in advancing scholarly understanding of abstract quality evaluation within international publication standards, particularly through the development of a systematic framework aligned with Scopus indexing criteria. By focusing on critical components such as clarity, structure, relevance, and novelty, the research helps fill the theoretical and methodological gap in assessing how these dimensions influence manuscript acceptance and visibility. Its novelty lies in offering an integrative evaluative approach that bridges linguistic accuracy and conceptual innovation, supporting both the pedagogical and editorial dimensions of academic writing. (Lubis et al., 2022). From an applied perspective, this study reinforces the importance of structured academic training that cultivates writing literacy in accordance with international standards, enabling authors from non-English-speaking contexts to achieve greater global visibility. (Chou & Chow, 2024).

The research also extends the discussion of novelty measurement as a fundamental criterion in academic evaluation, echoing this point. Zhao & Zhang (2025). The argument is that systematic novelty assessment strengthens both innovation and credibility in scientific writing. Moreover, by addressing deficiencies in rhetorical and conceptual articulation frequently observed in abstracts from regional journals, this study provides actionable recommendations for aligning local research outputs with Scopus quality benchmarks. (Kurniawan & Sabila, 2021) . Its practical implication is further reflected in the proposal for evaluative training frameworks that enhance researchers' ability to communicate novelty and significance effectively. (Sairally, 2025). Ultimately, this research contributes not only to improving the quality of academic abstracts but also to strengthening institutional capacity for achieving sustainable publication excellence within the global scholarly ecosystem. (Baas et al., 2020).

Research Methods

Research Design

This study employed a systematic review and content analysis to comprehensively evaluate the critical components of research abstracts and identify patterns of compliance with Scopus publication standards. The systematic review design was selected to ensure methodological transparency and replicability in the gathering and synthesis of existing literature on abstract writing, structure, and publication quality. Guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) framework, the study followed a structured process of identification, screening, eligibility assessment, and inclusion of relevant sources to maintain rigor and minimize bias. (Page

et al., 2020). The integration of content analysis allowed for a qualitative evaluation of textual and structural patterns within selected abstracts, focusing on linguistic clarity, novelty expression, and adherence to IMRaD conventions. This dual-method approach aligns with the recommendations of recent methodological research, which emphasizes the complementary nature of systematic review and content-based evaluation in capturing both quantitative and qualitative dimensions of scientific writing. (Suda et al., 2025). Adopting the PRISMA 2020 protocol also ensures that the reporting process meets international standards of methodological completeness, transparency, and reproducibility, which are vital for enhancing the credibility of meta-analytical and evaluative studies. (Sohrabi et al., 2021).

Data Sources and Sampling

The primary data were collected from three major databases—Scopus, Web of Science (WoS), and Sinta—to ensure comprehensive coverage and inclusion of diverse scholarly perspectives. The inclusion criteria were defined to capture relevant studies published between 2018 and 2025, written in English, and directly addressing themes of academic writing, abstract evaluation, or publication quality standards. Exclusion criteria excluded editorials, book reviews, and conference summaries that lacked analytical frameworks. Using the PRISMA 2020 protocol, the selection process involved four main stages: identification, screening, eligibility verification, and inclusion, ultimately yielding 25 qualified articles that met all predefined criteria. These selected articles were then coded and analyzed across seven critical components — clarity, structure, conciseness, relevance, keyword usage, novelty statement, and research objective clarity — to examine their relationship with abstract quality and publication readiness. The following table summarizes the metadata of the 25 analyzed articles, including publication year, source database, and thematic focus.

For each component, the reported percentage represents the proportion of the 25 analyzed abstracts that met the corresponding criterion. Thus, for example, the 96% clarity rate corresponds to 24 of 25 abstracts, whereas the 68% novelty rate corresponds to 17 of 25 abstracts. The same denominator was used across all seven components to maintain comparability.

Search Strategy and Reproducibility

The database search strategy was designed around the core concepts of research abstracts, academic/scientific writing, abstract evaluation, and publication quality. For the working revision, the search logic was documented in Boolean form so that the identification stage can be reproduced and audited. The following strings reflect the eligibility concepts described in the original manuscript; the authors should verify them against the historical search records before final submission.

Scopus: TITLE-ABS-KEY(("research abstract*" OR "academic abstract*" OR "abstract writing") AND ("academic writing" OR "scientific writing" OR "abstract evaluation" OR "publication quality"))

Web of Science: TS=(("research abstract*" OR "academic abstract*" OR "abstract writing") AND ("academic writing" OR "scientific writing" OR "abstract evaluation" OR "publication quality"))

SINTA: ("research abstract" OR "academic abstract" OR "abstract writing") AND ("academic writing" OR "abstract evaluation" OR "publication quality"

Table 1. Articles Analyzed in the Systematic Review

No	Author(s) & Year	Title / Focus Area	Source Database	Thematic Scope
1	Wu (2018)	Improving the Writing of Research Papers: IMRaD and Beyond	Scopus	Structure & Readability
2	Hunt et al. (2020).	How to Write a Good Abstract for a Biomedical Paper	Scopus	Abstract Clarity & Concise
3	Kurniawan & Sabila (2021)	Rhetorical Moves and Linguistic Features in Abstracts	Sinta 1	Structure & Keywords Usage
4	Lubis et al. (2022).	Does Journal Indexation Matter? A Genre Approach	Scopus	Publication Standards
5	Eriksson (2023)	The Art and Science of Scholarly Writing	WoS	Academic Writing Theory
6	Sysoyev et al. (2023).	Development of IMRaD Competence in Scholars	Scopus	Writing Competency & Structure
7	Donnelly et al. (2022).	A Multimodal Framework for Supporting Academic Writers	WoS	Pedagogical Framework
8	Depry et al. (2023).	Disciplinary Conventions in Scopus Abstracts	Scopus	Rhetorical Structure
9	Hladchenko (2022)	Publication Requirements and Research Output	Scopus	Publication Readiness
10	Jumanto & Waluyo (2024)	IMRaD Synthesis and Hedging in Academic Writing	Sinta 1	Abstract Structure
11	Piran & Tran (2024)	Enhancing Research Methodology & Publishing	Scopus	Methodological Standards
12	Chou & Chow (2024)	Enhancing English Abstract Quality for Non-English Writers	WoS	Language & Clarity
13	Jameel (2023)	The Significance of Abstract in Academic Research	Sinta 2	Abstract Importance
14	Sairally (2025)	Demonstrating Originality in Research Abstracts	Scopus	Novelty Expression
15	Oktaviani et al. (2024).	Writing Research Gap Strategies in Abstracts	Sinta 2	Research Gap & Coherence
16	Baas et al. (2020).	Scopus as a High-Quality Bibliometric Data Source	Scopus	Indexing Standards
17	Zhao & Zhang (2025)	Novelty Measurement in Academic Papers	WoS	Novelty & Contribution
18	Paudel (2024)	Discourse Move Analysis of Research Abstracts	Scopus	Structure & Linguistic Patterns
19	Budiyono & Fadhly (2023)	Qualitative Evidence Synthesis of Abstract Evaluation	Sinta 1	Evaluation Framework
20	Wald et al. (2023).	The Gap Statement in Higher Education Research	WoS	Abstract Rationale
21	Bacharova (2020)	Writing a Scientific Paper: A Pedagogical Framework	WoS	Writing Guidelines

22	McKenna (2024)	Formulating Optimal Keywords and Abstracts	Scopus	Keyword Optimization
23	Anievas (2025)	Comparing the Structure of Indexed vs Non-Indexed Abstracts	Scopus	Quality Benchmarking
24	Chandra & Chandra (2025)	Crafting Effective Abstracts for International Publication	Scopus	Abstract Composition
25	Pratama & Sulistiyo (2024)	Systematic Review of AI in Writing Skill Development	Sinta 3	Digital Tools in Writing

Table 1 analysis encompassed a total of 25 scholarly articles selected from three major academic databases—Scopus, Web of Science (WoS), and Sinta—covering a diverse body of research in the domains of academic writing, abstract evaluation, and publication standards. Of the total, 13 articles (52%) were sourced from Scopus-indexed journals, reflecting the dominance of internationally recognized, peer-reviewed publications that adhere to rigorous methodological and editorial standards. Meanwhile, six articles (24%) were drawn from the Web of Science (WoS), representing high-impact works that emphasize theoretical and pedagogical perspectives in academic writing. The remaining six articles (24%) originated from Sinta-accredited journals (Sinta 1–3), ensuring contextual representation from regional academic settings, particularly within the Southeast Asian research landscape. This balanced distribution highlights the study's comprehensive scope, integrating global and regional insights into abstract composition and evaluation practices.

Analytical Framework

The analytical framework of this study was constructed around seven evaluative components that collectively define the quality of academic abstracts: (1) clarity and coherence, (2) structural organization based on the IMRaD model (Background–Aim–Methods–Results–Conclusion), (3) the effective use of academic keywords, (4) conciseness, (5) relevance to the research context, (6) novelty articulation, and (7) contribution statement. Each component was operationalized as a measurable indicator to assess how well each abstract meets Scopus-level publication standards. This framework integrates both linguistic and conceptual dimensions, ensuring that the evaluation goes beyond grammatical accuracy to include intellectual quality and academic rigor. The selection of these components was grounded in widely accepted principles of academic writing and scholarly communication, emphasizing the balance between form, precision, and contribution. Such multidimensional frameworks have been shown to enhance validity and fairness in academic writing assessment by providing structured guidance and transparent evaluation benchmarks. (Panadero et al., 2023).

To ensure objectivity and comparability of results, each of the seven evaluative components was assessed using a five-point Likert scale (1–5), where 1 represented very weak performance, and 5 indicated excellent compliance with Scopus abstract criteria. This scoring rubric allowed for both qualitative interpretation and quantitative aggregation of abstract performance indicators. The use of a standardized rubric improves inter-rater reliability. It reduces subjectivity in evaluating complex written outputs, as supported by studies demonstrating that rubric-based evaluation increases accuracy and reduces cognitive bias in self-assessment and expert judgment. (Krebs et al., 2022). Additionally, the framework aligns with rubric validation research, which

emphasizes the importance of explicit performance descriptors to ensure both content and construct validity in writing assessments. (Gregori-Giralt & Menéndez-Varela, 2021). Through this analytical framework, the study systematically quantifies and interprets abstract quality, offering a replicable model that can be utilized for academic writing training, editorial review, and institutional evaluation of publication readiness.

Data Analysis Procedures

This study employed a mixed-method approach, combining quantitative and qualitative analytical techniques to obtain a comprehensive understanding of abstract quality and structural composition. The quantitative analysis focused on calculating the frequency and percentage distribution of each critical component—clarity, structure, conciseness, relevance, keywords usage, novelty, and contribution statement—across the 25 analyzed abstracts. This statistical representation was used to identify dominant patterns and recurrent deficiencies in alignment with Scopus abstract standards. Meanwhile, the qualitative analysis adopted a thematic analysis framework to interpret stylistic variations, rhetorical moves, and the overall coherence of the abstracts. Each text was examined for adherence to the IMRaD structure and the logical flow of ideas, enabling a deeper understanding of how linguistic clarity and conceptual depth influence perceived quality. To ensure consistency and objectivity in scoring, the study conducted an inter-rater reliability validation, in which two independent evaluators assessed all abstracts using the same rubric and Likert scale. The inter-rater agreement was calculated using Cohen's Kappa coefficient, ensuring that the evaluative results achieved a satisfactory reliability threshold. This multi-layered analysis not only enhanced the credibility and replicability of the findings but also ensured that both surface-level (linguistic) and deep-level (conceptual) dimensions of academic abstracts were systematically captured and interpreted.

Results and Discussion

Result

The findings of this study were compiled to illustrate the general pattern, level of completeness, and quality of application of abstract key elements in accordance with Scopus publication standards. The data obtained were analyzed both quantitatively and qualitatively to highlight trends and differences between the articles reviewed. The results of the study include:

Frequency of Critical Components

A preliminary analysis was conducted to determine the extent to which each critical component was met in the reviewed research abstract. This evaluation encompasses seven key aspects that significantly influence the quality of abstracts, namely clarity, structure (IMRaD), conciseness, relevance, keyword usage, novelty statement, and clarity of research objectives. The selection of these seven components is based on a synthesis of literature that emphasizes the abstract quality is a combination of readability, completeness of information, and suitability of structure in accordance with international publication standards.

Clarity and structure are the most critical elements, as the abstract serves as the primary gateway for readers and editors to assess the article's relevance and contribution. (Chandra & Chandra, 2025). A clear and structured abstract enables the reader to grasp the core of the research without needing to read the entire manuscript. Structures that follow the IMRaD (Introduction, Methods, Results, and Discussion) format have become

a universal standard in reputable journals, as they enhance readability and consistency across articles. (Chien & Khan, 2023).

The aspects of conciseness and relevance are rooted in the principle of effective scientific communication, where each sentence must convey essential information without being overly lengthy. Abstracts that are too long or overly repetitive tend to distract readers and violate international journal policies on word limits. (Busse et al., 2022). Meanwhile, keyword usage is a crucial aspect for the discoverability and traceability of articles in databases such as Scopus and Web of Science. The selection of keywords relevant to the research topic directly impacts the article's visibility and citations. (Tennant, 2020).

The last two components, namely the novelty statement and the clarity of the research objective, are the primary indicators in the reviewer's assessment of the research's significance. Abstracts that explicitly state novelty show the contribution of research to the development of science. On the other hand, clarity of research objectives helps readers understand the direction and focus of research without ambiguity. (Nor & Sihes, 2021).

Based on the literature, these seven indicators were used as a systematic evaluative framework to assess the abstract quality in this study. Out of a total of 25 abstracts analyzed, each component was evaluated based on its existence and conformity to established quality standards. The results of the analysis, presenting the frequency and percentage of fulfillment for each component, are shown in Table 1 and Figure 1, illustrating the general trend of the abstract quality reviewed.

Table 2. Critical Component Analysis (N-25) Research Abstract

No	Critical Component	Frequency (n)	Percentage (%)	Mean Score (1–5)	Standard Deviation	Quality Level	Dominant Weakness Observed
1	Clarity	24	96.0	4.8	0.4	Excellent	Minor grammatical ambiguities
2	Structure (IMRaD)	22	88.0	4.4	0.5	Very Good	Inconsistent subheading or sequencing
3	Conciseness	21	84.0	4.2	0.6	Very Good	Overuse of general terms
4	Relevance	20	80.0	4.0	0.5	Good	Lack of contextual linkage to the field
5	Keywords Usage	19	76.0	3.9	0.7	Moderate	Non-standardized keyword terminology
6	Novelty Statement	17	68.0	3.5	0.6	Moderate	Absence of an explicit statement of novelty
7	Research Objective	18	72.0	3.7	0.5	Moderate	Vague or broad

Clarity	objective phrasing

Table 2 describes the analysis of 25 research abstracts, which revealed distinct patterns of compliance across the seven critical components of abstract quality. The results indicated that clarity (96%, M = 4.8) and structure (IMRaD) (88%, M = 4.4) were the most consistently fulfilled components, suggesting that most authors were able to express their ideas clearly and follow an appropriate logical structure. Concise (84%) and relevant (80%) also demonstrated strong adherence, indicating that many abstracts were effectively written with focused content. However, minor weaknesses, such as the overuse of general terms and a lack of contextual depth, were still observed. These findings align with recommendations from Scopus publication standards, which emphasize clarity, logical structure, and linguistic precision as key determinants of abstract readability and potential for acceptance. (Chien & Khan, 2023).

In contrast, the components related to keyword usage (76%, M = 3.9), novelty statement (68%, M = 3.5), and research objective clarity (72%, M = 3.7) showed relatively lower levels of compliance. The insufficient articulation of novelty and vague presentation of research aims indicate that authors tend to focus more on describing their study rather than highlighting its unique contribution. This reflects a common challenge in academic writing, where the abstract often fails to emphasize innovation and significance. These results suggest that improvement efforts should focus on enhancing authors' ability to clearly express research objectives and novelty within concise structures, thereby meeting Scopus publication expectations.

As summarized in Table 1, variations in the level of compliance are further visualized in Figure 1, which clearly shows that clarity and structure (IMRaD) achieved the highest adherence rates. In contrast, clarity of novelty statement and research objective was recorded as the lowest.

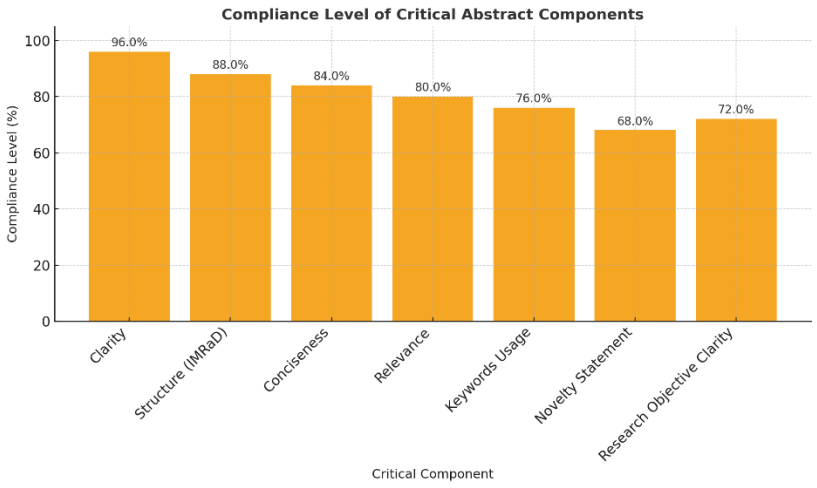

Figure 1. Level of Critical Abstract Components

Figure one visually emphasizes the hierarchical differences in compliance levels among the seven evaluated abstract components, offering a more intuitive understanding compared to the numerical summary. The dominance of clarity (96%) and structure (IMRaD) (88%) forms a distinct upper tier, indicating that linguistic precision and formal

organization are the most consistently maintained elements in academic abstract writing. This suggests that most authors possess adequate writing competence in presenting information clearly and structuring their abstracts in alignment with conventional journal expectations. The gradual decline observed from conciseness (84%) to relevance (80%) demonstrates a transitional zone where authors begin to lose focus in information density and contextual linkage. This trend implies that while clarity is achieved, maintaining a balance between brevity and substance remains a persistent challenge in ensuring abstract effectiveness.

In contrast, the lower compliance with keyword usage (76%), research objective clarity (72%), and particularly novelty statements (68%) establishes a crucial gap between linguistic accuracy and conceptual articulation. The steep drop between structure and novelty components (a gap of 20 percentage points) highlights a critical weakness in authors' ability to communicate originality and purpose — elements that directly influence manuscript acceptance in Scopus-indexed journals. The graphical pattern clearly illustrates that while surface-level presentation skills are strong, deeper conceptual and contribution-oriented aspects remain underdeveloped. This imbalance underscores the need for targeted academic writing interventions that not only teach formal structure but also train researchers to express innovation, research intent, and scholarly contribution with the same precision as linguistic and structural elements.

Quality Categorization

The categorization of abstract quality into High, Moderate, and Low levels is essential for providing a clearer understanding of the overall performance distribution and for identifying specific patterns of strength and weakness among the analyzed samples. This classification helps to simplify the interpretation of the data by grouping abstracts according to their overall quality score and degree of compliance with the seven critical components previously evaluated — namely clarity, structure, conciseness, relevance, keywords usage, novelty statement, and research objective clarity. By establishing these categories, the analysis can more effectively highlight which abstracts exhibit superior linguistic precision and structural coherence, and which ones lack critical academic features, such as novelty, articulation, or conceptual focus. Furthermore, such classification enables comparative insight into the proportion of well-prepared abstracts versus those that still require substantial improvement to meet international publication standards, particularly within Scopus-indexed journals.

Following the classification framework described above, Table 2 summarizes the distribution of abstracts across three quality levels — High, Moderate, and Low. This table provides a concise overview of the overall performance trends, highlighting the dominant strengths and weaknesses within each category, and serving as the foundation for subsequent qualitative interpretation.

Table 3. Quality Categorization of Abstracts

No	Quality Category	Number of Abstracts (n)	Percentage (%)	Mean Overall Score (1–5)	Dominant Strength	Dominant Weakness	Interpretation
1	High Quality	10	40.0	4.5	Clarity, Structure, Concise	Minor stylistic inconsistencies	Abstracts in this category demonstrate excellent linguistic accuracy,

							coherence, and adherence to the IMRaD structure.
2	Moderate Quality	9	36.0	3.7	Relevance, Keywords Usage	Unclear novelty and objectives	These abstracts demonstrate fair organization but often lack clear articulation of novelty and strong research objectives.
3	Low Quality	6	24.0	2.8	Basic Structure Only	Poor clarity and lack of a contributio n statement	Abstracts in this category exhibit weak structure, a lack of focus, and insufficient explanation of research contributions.

Table 3 reveals a distinct stratification of abstract quality, demonstrating varying degrees of adherence to the seven critical components previously assessed. The high-quality category, which comprises 40% of the total abstracts (n = 10), exhibits exceptional performance across linguistic and structural dimensions. Abstracts in this group consistently reflect clear articulation, well-organized IMRaD structures, and concise expression of research aims — characteristics that align closely with international publication standards. The minor stylistic issues observed in some abstracts within this group do not significantly diminish their overall coherence or readability, indicating a high level of writing competence.

In contrast, the moderate-quality category accounts for 36% (n = 9) of the samples, reflecting partial compliance with quality indicators. These abstracts generally maintain acceptable structure and relevance but display weaknesses in articulating novelty and specific research objectives. The low-quality category (24%, n = 6) represents abstracts that struggle to convey clarity and contribution effectively, often lacking a defined purpose or conceptual direction. This uneven distribution of quality highlights the need for more robust academic writing training that emphasizes developing conceptual depth and crafting effective research contribution statements, rather than merely maintaining linguistic accuracy.

To provide a more precise visual understanding of the overall quality distribution, Figure 2 illustrates the proportional representation of the three quality categories identified in Table 2. This visualization highlights the predominance of high- and moderate-quality abstracts, while also emphasizing the notable portion of low-quality abstracts that still require substantial improvement to meet international publication standards.

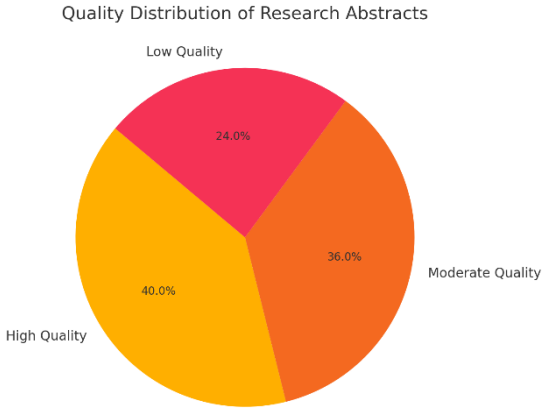

Figure 2. Distribution of the Research Abstract

Figure 2 illustrates the proportional distribution of research abstract quality, revealing a clear differentiation among the three identified categories. The high-quality group, representing 40% of the total abstracts, dominates the distribution, indicating that a considerable number of authors have achieved substantial proficiency in academic writing, particularly in maintaining clarity, logical structure, and linguistic precision. The moderate-quality group, which comprises 36%, forms a transitional segment where abstracts generally meet structural expectations but fall short in effectively articulating novelty and research objectives, highlighting a partial understanding of publication standards. In contrast, the low-quality group, accounting for 24%, reflects a critical deficiency in both conceptual focus and technical accuracy, often characterized by vague objectives, poor organization, and limited contribution statements. The visible gap between the high- and low-quality segments highlights a significant disparity in scholarly writing competence, suggesting that while many researchers are capable of producing technically sound abstracts, a substantial portion still lacks the conceptual rigor required to meet Scopus-level publication standards.

Discussion

The findings from the analysis of critical abstract components reveal a consistent correlation between the use of the IMRaD structure and the readability and acceptance potential of research manuscripts. Abstracts categorized as high quality predominantly adhered to a clear IMRaD format, where information was logically sequenced from background and objectives to methods, results, and conclusions. This structured approach enhances both the clarity and coherence of the text, enabling readers, editors, and reviewers to assess the relevance and rigor of a study quickly. Such structural consistency aligns with international editorial standards that prioritize accessibility and transparency in academic communication. (Chien & Khan, 2023). The dominance of clarity (96%) and structure (88%) in the frequency analysis further underscores that linguistic precision and organizational coherence are central features of abstract effectiveness in the reviewed literature. These findings validate previous claims that well-structured abstracts not only improve readability but also serve as an implicit indicator of methodological soundness and author credibility. (Chandra & Chandra, 2025) .

Conversely, the results reveal a persistent weakness in the conceptual dimensions of abstract writing, particularly in the articulation of novelty and specific research objectives. Novelty fulfillment reached only 68%, compared with 88% for structural adherence, producing a 20-percentage-point gap. This discrepancy should not be interpreted simply as a linguistic deficit. The pattern suggests that structural competence and conceptual novelty represent related but distinct forms of academic literacy. An abstract can be grammatically clear, concise, and conventionally organized while still describing a study without explicitly positioning it against prior knowledge. One plausible explanation is that writers may have greater access to learned rhetorical templates—such as stating the background, method, and result—than to the higher-order cognitive processes required to identify a research gap, distinguish an incremental contribution from existing work, and formulate that contribution in a defensible sentence. In this sense, the 'Clear Yet Hollow' phenomenon reflects a deficiency in cognitive literacy: the capacity to conceptualize, formulate, and communicate genuine research novelty. The finding also helps explain why the 72% objective-clarity rate remains below structural compliance. Writers may know how to organize information but struggle to transform that information into a concise scholarly position. Thus, improving abstract quality requires more than language correction or IMRaD instruction; it also requires explicit training in research-gap identification, contribution mapping, synthesis, and novelty formulation.

The result is consistent with the broader pattern shown in the seven-component analysis: the decline from clarity (96%) and structure (88%) to conciseness (84%), relevance (80%), keyword usage (76%), objective clarity (72%), and novelty (68%) indicates that the further the task moves from formal organization toward conceptual positioning, the greater the difficulty observed in the reviewed abstracts. Accordingly, the contribution of this study lies not in treating novelty as another formatting component, but in identifying it as a cognitively demanding dimension of abstract construction.

There is an urgent need for systematic academic writing training and targeted publication mentoring programs to enhance researchers' capacity to meet international publication standards. The predominance of clarity and structure as well-achieved components, in contrast to the persistent weakness in articulating novelty and research objectives, suggests that most authors possess basic linguistic and organizational skills but lack conceptual depth and a publication-oriented strategy. To address this gap, structured academic writing interventions emphasizing IMRaD logic, critical thinking, and originality are essential. Empirical evidence suggests that integrated training programs, which combine strategy instruction, feedback, and experiential practice, significantly improve writing quality and publication success. (Wischgoll, 2017). Institutional initiatives, such as academic writing offices and research mentoring units, have proven effective in strengthening scholarly literacy and enhancing publication performance. (Chernysheva et al., 2019). Furthermore, programs focusing on writing strategy and peer-feedback mechanisms enhance coherence and reduce publication apprehension. (Nurkamto et al., 2024). Institutional quality-improvement initiatives that integrate writing training with mentoring have also been shown to increase Scopus-indexed outputs and research culture sustainability. (Stuart et al., 2025). Finally, continuous competence development in academic writing has been recognized as a strategic necessity for universities aiming to enhance visibility and global ranking performance. (Sysoyev et al., 2023). Collectively, these insights affirm that improving abstract quality requires not only linguistic mastery but also institutionalized

pedagogical support and research development ecosystems that nurture both form and substance of academic writing. (Aisyah et al., 2024; Purwanto et al., 2024).

The integration of a evaluative framework informed by expectations commonly associated with abstracts in Scopus-indexed journals into academic writing and publication training programs to enhance the quality and global visibility of research outputs. Implementing this framework would allow institutions to systematically assess abstracts and manuscripts according to established criteria of clarity, structure, relevance, novelty, and methodological transparency, which are recurrent features of high-quality scholarly communication. Scopus's content selection and re-evaluation system ensures rigorous quality control and can serve as a reliable benchmark for academic development. (Baas et al., 2020). Similarly, Chernysheva et al. (2019) Demonstrated that the establishment of academic writing offices following Scopus editorial principles significantly improves staff publication performance and linguistic competence. A multimodal framework for academic writing support that incorporates evaluative feedback loops, enhancing researchers' metacognitive awareness and publication confidence (Donnelly et al., 2022).

Complementarily, Hladchenko (2022) Found that institutions aligning their publication training with international quality criteria experience notable improvements in both output and journal quartile positioning. In a similar vein, Piran & Tran (2024) Advocated for a four-dimensional evaluation model—technical content, structural coherence, writing precision, and ethical integrity—as a foundation for manuscript quality assurance. Finally, the importance of rhetorical and disciplinary conventions in achieving international publication readiness underscores the value of a standardized evaluative framework based on Scopus abstract standards, which could help authors internalize both structural and conceptual excellence. (Depry et al., 2023). Thus, the adoption of such an evaluative framework not only supports the pedagogical goal of improving academic literacy but also serves as an institutional mechanism for elevating publication quality and fostering a sustainable culture of research excellence.

Numerous previous studies emphasize the centrality of the IMRaD structure and clarity as fundamental determinants of abstract quality and publication acceptance. Similar to the results of this study, Hunt et al. (2020) Found that adherence to IMRaD principles significantly enhances readability and editorial evaluation, confirming that structured abstracts lead to stronger first impressions and a higher likelihood of acceptance. Likewise, IMRaD-based abstracts exhibit greater transparency, coherence, and academic rigor compared to non-structured formats. (Teodosiu, 2019; Trinh et al., 2020). In agreement with Sysoyev et al. (2023). The current study supports the notion that systematic training in writing the IMRaD components substantially improves both the structural and linguistic quality of abstracts. However, minimal differences between international and national journals in rhetorical structure, this study observed significant disparities in conceptual depth — particularly in articulating novelty and research objectives — indicating that indexation level may influence content sophistication. (Kurniawan & Sabila, 2021).

Furthermore, recent analyses of the IMRaD discussion emphasized synthesis, hedging, and balance between specificity and generalization as emerging indicators of high-quality academic writing. (Eriksson, 2023; Jumanto et al., 2024)This study finds that novelty articulation remains the most neglected component, also supporting the conclusions of Jameel, (2023), who identified the absence of problem statements, methods, and conclusions as recurring deficiencies in non-Scopus abstracts. Overall, while previous research has largely emphasized form and linguistic accuracy, the present

study extends the discourse by highlighting conceptual articulation—especially novelty and research purpose—as the distinguishing features that separate publishable abstracts from those that fall below international standards.

This study contributes to the advancement of knowledge in the field of academic writing and publication standards by providing empirical evidence on how the fulfillment of critical abstract components — particularly clarity, structure, and articulation of novelty — influences overall abstract quality and readiness for publication. Theoretically, this research extends the IMRaD framework by demonstrating that clarity and structural precision are not merely stylistic choices but essential determinants of scholarly impact and editorial acceptance. (Wu, 2011). It reinforces the argument that academic writing must integrate both form and conceptual innovation, aligning the concept of symmetry of specificity, which highlights the balance between structure and intellectual contribution. (Eriksson, 2023).

In practical terms, this research contributes to pedagogical discourse by emphasizing the need for structured training in IMRaD-based writing and critical thinking—a finding consistent with Sysoyev et al. (2023), who confirmed the effectiveness of systematic academic writing programs in improving IMRaD competence. Furthermore, by identifying novelty statements and objective clarity as the most underdeveloped components, this study opens new avenues for future research to explore conceptual literacy as a measurable variable in abstract evaluation. (Hidayad et al., 2024; Nasar et al., 2024), expanding on the pedagogical frameworks that stress the importance of precise linguistic and conceptual balance in scientific communication. (Hunt et al., 2020; Pandeya, 2018). Finally, synthesis and hedging as markers of high-impact academic writing suggest that future research should develop more nuanced frameworks that connect abstract quality metrics with publication success indicators across disciplines. (Jumanto et al., 2024).

Conclusion

This study concludes that the quality of research abstracts is closely associated with the degree to which authors fulfill critical components, such as clarity, structure, conciseness, relevance, keyword usage, a clear statement of novelty, and clarity of the research objective. The findings highlight that while most abstracts demonstrate substantial linguistic precision and structural coherence — particularly through the consistent application of the IMRaD framework — many still lack depth in articulating novelty and defining specific research objectives. This imbalance between form and conceptual articulation explains why specific abstracts succeed in achieving publication readiness while others fall short. The study therefore underscores the importance of balancing linguistic accuracy with intellectual contribution, suggesting that high-quality abstracts are those that are not only clear and structured but also conceptually original and purposeful.

From an academic standpoint, the strength of this research lies in its systematic and evaluative approach, which integrates quantitative and qualitative analysis to assess abstract quality comprehensively. It contributes both theoretically and practically by establishing an evaluative model that aligns with Scopus publication standards and can be adapted for academic writing training. However, the study also faces certain limitations. The sample size, while sufficient for trend identification, may not fully represent all disciplinary variations in writing conventions. Moreover, the evaluation process, though structured, still relies on subjective judgment in interpreting linguistic

and conceptual quality. Future research should therefore expand the dataset across disciplines, incorporate automated linguistic analysis tools, and explore deeper correlations between abstract quality indicators and actual publication outcomes to enhance the generalizability and precision of these findings.

Author Contribution Statement

The authors' contributions to this article are as follows: Author 1 and Author 2 acted as the initiator and conceptor of the article; Author 3, 4 and 5 contributed to the analysis and interpretation of the data.

Statement of Interest

All authors declare that they have no financial or non-financial conflicts of interest relevant to this research.

Funding

This research did not receive any specific grant from any funding agency in the public, commercial, or nonprofit sectors.

References

Aisyah, A., Hidayad, F., & Purwanto, M. B. (2024). Effect of Grammar Learning Strategies (GLS) in Language Learning: Case Study on Vocational High School Students in Determining Proficiency Levels. *Wiralodra English Journal (WEJ)*, *8*(1 SE-Articles), 141–153. https://doi.org/10.31943/wej.v8i1.281

Anievas, B. (2025). Comparing The Anatomy and Physiology of Different Journals Using Meo's Fish Bone Model. *Indonesian Journal of Education Research (IJoER)*. https://doi.org/10.37251/ijoer.v6i2.1492

Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus is a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, *1*, 377–386. https://doi.org/10.1162/qss_a_00019

Bacharova, L. (2017). *Writing a scientific paper: an integral part of the continuous academic development of healthcare professionals*. *1*, 34–35. https://doi.org/10.24969/hvt.2017.3

Budiyono, S., & Fadhly, F. (2023). A Qualitative Evidence Synthesis of Article Abstract Writing in ELT and Literature Journals. *English Review: Journal of English Education*. https://doi.org/10.25134/erjee.v11i1.7753

Busse, C., Anderson, E., Endale, T., Smith, Y., Kaniecki, M., Shannon, C., & August, E. (2022). Strengthening research capacity: a systematic review of manuscript writing and publishing interventions for researchers in low-income and middle-income countries. *BMJ Global Health*, *7*. https://doi.org/10.1136/bmjgh-2021-008059

Chandra, A., & Chandra, M. (2025). Choosing the right title, keywords, and crafting an effective abstract in scientific writing. *Postgraduate Medical Journal*. https://doi.org/10.1093/postmj/qgaf126

Chernysheva, M., Kozlova, A., & Donova, E. (2019). Teaching Academic English to Russian-speaking Academic Staff: The Case of the Office of Academic Writing. *Vysshee Obrazovanie v Rossii = Higher Education in Russia*. https://doi.org/10.31992/0869-3617-2019-28-10-50-57

Chien, P., & Khan, K. (2023). Systematic Review Reporting - Writing concisely and precisely. *Pakistan Journal of Medical Sciences*, *39*, 317–322. https://doi.org/10.12669/pjms.39.2.7428

Chou, W., & Chow, J. (2024). Enhancing English abstract quality for non-English speaking authors using ChatGPT: A comparative study of Taiwan, Japan, China, and South Korea with slope graphs. *Medicine*, *103*. https://doi.org/10.1097/md.0000000000039796

Depry, M. I., Kurniawan, E., & Lubis, A. (2023). Does Disciplinary Convention Affect Rhetorical Organization? A Move Analysis of Scopus-Indexed Articles by Indonesian Authors. *IJELTAL (Indonesian Journal of English Language Teaching and Applied Linguistics)*. https://doi.org/10.21093/ijeltal.v8i2.1346

Donnelly, R., Kennelly, I., & McAvinia, C. (2022). A multimodal framework for supporting academic writers' perspectives, practice, and performance. *Teaching in Higher Education*, *29*, 936–952. https://doi.org/10.1080/13562517.2022.2048365

Eriksson, D. (2023). The art and science of scholarly writing: framing symmetry of specificity beyond IMRAD. *European Business Review*. https://doi.org/10.1108/ebr-01-2023-0004

Gregori-Giralt, E., & Menéndez-Varela, J.-L. (2021). The content aspect of validity in a rubric-based assessment system for course syllabi. *Studies in Educational Evaluation*, *68*, 100971. https://doi.org/10.1016/j.stueduc.2020.100971

Hidayad, F., Ridayani, R., Purwanto, M. B., & Agustinasari, E. (2024). Transforming Education In The 5.0 Era: A Case Study On The Digital Readiness Of English Lecturers At Polytechnics. *Language and Education Journal*, *9*(2 SE-Articles). https://doi.org/10.52237/lej.v9i2.896

Hladchenko, M. (2022). Implications of Publication Requirements for the Research Output of Ukrainian Academics in Scopus in 1999–2019. *Journal of Data and Information Science*, *7*, 71–93. https://doi.org/10.2478/jdis-2022-0016

Hunt, M., Raflik, K., Wesołowski, D., Sibilska, A., & Sakowska-Hunt, D. E. (2020). *How to write a good abstract for a biomedical paper*. *13*, 1–9. https://doi.org/10.5604/01.3001.0014.0266

Jameel, A. (2023). The Significance of the Abstract in Academic Research. *Journal of Tikrit University for Humanities*. https://doi.org/10.25130/jtuh.30.12.2.2023.27

Jumanto, J., Waluyo, D. E., Purwatiningsih, A., Andono, P., Nugroho, R. A., Ramayanti, I., & Minghat, A. (2024). IMRAD, synthesis, and hedging within expert academic writing to encourage a world discussion platform. *Studies in English Language and Education*. https://doi.org/10.24815/siele.v11i3.34776

Krebs, R., Rothstein, B., & Roelle, J. (2022). Rubrics enhance accuracy and reduce cognitive load in self-assessment. *Metacognition and Learning*, *17*, 627–650. https://doi.org/10.1007/s11409-022-09302-1

Kurniawan, E., & Sabila, N. A. A. (2021). Another Look at the Rhetorical Moves and Linguistic Realizations in International and Indonesian Journal Articles: A Case of Tourism Research. *Indonesian Journal of Applied Linguistics*. https://doi.org/10.17509/ijal.v11i2.32055

Lubis, A., Kurniawan, E., & Gunawan, W. (2022). Does Journal Indexation Matter? A Genre-Approach Move Analysis of Nursing English Research Article Abstracts. *Journal of Language and Education*. https://doi.org/10.17323/jle.2022.13471

McKenna, L. (2024). Formulating Optimal Manuscript Keywords and Abstracts. *Clinical Simulation in Nursing*. https://doi.org/10.1016/j.ecns.2024.101546

Nasar, I., Nurdianingsih, F., Rahmi, E., & Purwanto, M. B. (2024). Values Of Character Education: Study of Strengthening the Culture of Digital Literacy for Youth in the Disruptive 5.0 Era. *Gema Wiralodra*, *15*(1 SE-Articles), 596–604. https://doi.org/10.31943/gw.v15i1.688

Nor, H. M., & Sihes, A. (2021). Critical Thinking Skills in Education: A Systematic Literature Review. *International Journal of Academic Research in Business and Social Sciences*. https://doi.org/10.6007/ijarbss/v11-i11/11529

Nurkamto, J., Prihandoko, L., Putro, N. H. P. S., & Purwati, O. (2024). Academic writing apprehension in higher education: A systematic review. *Studies in English Language and Education*. https://doi.org/10.24815/siele.v11i1.28928

Oktaviani, D., Wardhana, D. E. C., Diani, I., & Jamalludin, J. (2024). Writing Research Gap Strategies in Indonesian Articles Abstracts and Introductions in Accredited National Journals towards International Indexed Publications. *International Journal of Social Science and Human Research*. https://doi.org/10.47191/ijsshr/v7-i07-118

Page, M., McKenzie, J., Bossuyt, P., Boutron, I., Hoffmann, T., Mulrow, C., Shamseer, L., Tetzlaff, J., Akl, E., Brennan, S., Chou, R., Glanville, J. M., Grimshaw, J., Hrõbjartsson, A., Lalu, M., Li, T., Loder, E., Mayo-Wilson, E., McDonald, S., … Moher, D. (2020). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *Systematic Reviews*, *10*. https://doi.org/10.1186/s13643-021-01626-4

Panadero, E., Jonsson, A., Pinedo, L., & Fernández-Castilla, B. (2023). Effects of Rubrics on Academic Performance, Self-Regulated Learning, and self-Efficacy: a Meta-analytic Review. *Educational Psychology Review*, *35*, 1–38. https://doi.org/10.1007/s10648-023-09823-4

Pandeya, D. (2018). Practice of Good Scientific Writing. *Medical Journal of Shree Birendra Hospital*, *17*, 1–2. https://doi.org/10.3126/mjsbh.v17i1.19544

Paudel, P. (2024). Towards a Discourse Move Analysis of Research Article Abstracts in Nepali Journals: A Cross-Disciplinary Study. *Prithvi Academic Journal*. https://doi.org/10.3126/paj.v7i1.65773

Piran, M. J., & Tran, N. (2024). Enhancing Research Methodology and Academic Publishing: A Structured Framework for Quality and Integrity. *ArXiv*, *abs/2412.05683*. https://doi.org/10.48550/arxiv.2412.05683

Purwanto, M. B., Yuliasri, I., Widhiyanto, W., & Rozi, F. (2024). Primary School English Education In The Age Of Industry 4.0: Tackling Challenges, Expanding Horizons. *Proceedings of Fine Arts, Literature, Language, and Education*, 859–873.

Sairally, B. (2025). Editorial: Demonstrating Originality in Research. *International Journal of Islamic Finance and Sustainable Development*. https://doi.org/10.55188/ijifsd.v17i1.1066

Sohrabi, C., Franchi, T., Mathew, G., Kerwan, A., Nicola, M., Griffin, M., Agha, M., & Agha, R. (2021). PRISMA 2020 statement: What is new and the importance of reporting guidelines. *International Journal of Surgery*, 105918. https://doi.org/10.1016/j.ijsu.2021.105918

Stuart, H., Schroeder, S., Studer, A., Wheeler, D., Lavin, J., & Li, C. N. (2025). Increasing Academic Output through Quality Improvement Educational Strategies. *Pediatric Quality & Safety*, *10*. https://doi.org/10.1097/pq9.0000000000000804

Suda, C., Yamamoto, N., Tsuge, T., Hayashi, M., Suzuki, K., Ikuta, Y., & Banno, M. (2025). Enhancing Reporting Quality Using the Preferred Reporting Items for Systematic Review and Meta-Analysis 2020 in Systematic Reviews of Emergency Medicine Journals: A Cross-Sectional Study. *Cureus*, *17*. https://doi.org/10.7759/cureus.78255

Sysoyev, P., Sorokin, D., & Evstigneeva, I. (2023). The development of university research scholars' and faculty's competence in academic writing. *Perspectives of Science and Education*. https://doi.org/10.32744/pse.2023.1.39

Tennant, J. (2020). Web of Science and Scopus are not global databases of knowledge. *European Science Editing*. https://doi.org/10.31235/osf.io/qhvgr

Teodosiu, M. (2019). Scientific writing and publishing with IMRaD. *Annals of Forest Research*, *62*, 201–214. https://doi.org/10.15287/afr.2019.1759

Trinh, T.-P.-T., Tran, T., Nguyen, T.-T., Nghiem, T. T., & Danh, N. N. (2020). Comparative Analysis of National and International Educational Science Articles in Vietnam: Evidence from the Introduction, Methods, Results, and Discussion Structure. *European Journal of Educational Research*, *9*, 1367–1376.

https://doi.org/10.12973/eu-jer.9.3.1367

Wald, N., Harland, T., & Daskon, C. (2023). The gap statement and justification in higher education research: an analysis of published articles. *European Journal of Higher Education*, *14*, 308–323. https://doi.org/10.1080/21568235.2023.2189132

Wischgoll, A. (2017). Improving Undergraduates' and Postgraduates' Academic Writing Skills with Strategy Training and Feedback. *Frontiers in Education*, *2*. https://doi.org/10.3389/feduc.2017.00033

Wu, J. (2011). Improving the Writing of Research Papers: IMRAD and Beyond. *Landscape Ecology*, *26*, 1345–1349. https://doi.org/10.1007/s10980-011-9674-3

Zhao, Y., & Zhang, C. (2025). A review of the novelty measurements of academic papers. *Scientometrics*, *130*, 727–753. https://doi.org/10.1007/s11192-025-05234-0