



A Good article or not: Key Elements for an Impactful Scientific paper

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ABSTRACT

Purpose—This article is an essential guide for early career researchers embarking on writing and publishing scientific manuscripts in high-impact academic journals. **Design/methodology/approach** – Acknowledging the critical role of publication in building a researcher's academic reputation, the paper provides detailed guidance on crafting the first scientific manuscript. It addresses the common pitfalls and challenges associated with the process, particularly for novice writers unfamiliar with scientific papers' stringent structure and functional complexities. **Findings** – The manuscript is structured to demystify each component of a scientific paper, including the title, abstract, introduction, methods, results, discussion, conclusion, acknowledgments, and references. Through an observational approach, the paper highlights the most common mistakes made by new authors, such as issues with clarity, organization, citation errors, and non-compliance with journal guidelines. Additionally, it offers practical tips and strategies to avoid these pitfalls, emphasizing the importance of a clear narrative, thorough literature review, accurate data presentation, and adherence to ethical standards. **Originality/value** –The unique feature of this article is its concise, point-by-point guidance complemented by illustrative examples, making it an invaluable resource for early career researchers aiming to navigate the complexities of scientific manuscript preparation and achieve successful publication in prestigious academic journals.

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Introduction

Communication plays a crucial role in the advancement of scientific literature (Behzadi, 2021; Mayyas & Alzoubi, 2022). Researchers and academicians alike require well-crafted scientific communication in the form of various types of papers for multiple purposes, including obtaining degrees, achieving promotions, gaining expertise in their field, and securing editorships (Forero, 2023). The process of writing research papers primarily revolves around the organizational structure and the functional descriptions of individual sections. While the conventional paper structure, encompassing introduction, methods, results, discussion, and conclusions, provides a basic framework, it is not only essential for keeping one's work organized but also leaves room for potential challenges in navigating through the writing process (Grimm & Harvey, 2022). Despite having these standard sections, there exists ample

flexibility that may lead to encountering difficulties and obstacles during the writing journey. Several common mistakes (summarized in table 1) can differentiate good from poor articles.

The common challenge faced by researchers is avoiding these mistakes and writing and publishing a research paper. Scientific writing has become a critical issue within the medical community due to the rising academic and professional expectations (Buzi, 2022). The creation of a well-written scientific manuscript is a shared aspiration among authors, reviewers, editors, and readers alike. Developing the ability to construct an effective manuscript involves adhering to fundamental rules and techniques in addition to possessing knowledge and skills. The process of writing and publishing a scientific paper is not only a fundamental requirement in the field of science but also serves as an indicator of a scientist's merits (Pratt et al., 2022). The skill of scientific paper writing is typically acquired through experiential learning and formal training.

In this review, we present an overview of the structure and components of a scientific manuscript, highlighting the key elements that authors should consider when writing their manuscript (Schwen, 2020). Prior to delving into the diverse components comprising the anatomy of a scientific paper, it is crucial to understand the types of scientific papers, the planning process involved, and the motivations driving researchers to publish.

Table 1: Authors' common mistakes in manuscript writing

First page content		
Title	Abstract	Keywords
<ul style="list-style-type: none"> - Too long. - Not reflect the study essence - Using of abbreviations or acronym. 	<ul style="list-style-type: none"> - The objective not mentioned. - Focus on other aspects than the findings. 	<ul style="list-style-type: none"> - Using uncommon keywords. - Used of abbreviations.
Body of the Manuscript		
Introduction	Method	Result
<ul style="list-style-type: none"> - Rational and motivation of the study are discussed. - Objectives/questions are not specified. - The introduction is an extensive review of the literature 	<ul style="list-style-type: none"> - Methods, interventions, and instruments are not described in - Inclusion and exclusion criteria for participants are not provided - Inadequate sample size and sampling technique descriptions in the manuscript. - Inadequate validity of instruments used in the manuscript. -The statistical analysis used is not clearly stated. 	<ul style="list-style-type: none"> - Results not related to the objectives of the study mentioned. - Redundancy; The same results appear both in a table and in the text. - Incorrect statistical tests used. -Results are reported selectively.
Discussion		Conclusion
<ul style="list-style-type: none"> - Not all data present are discussed critically. Insufficient or no significant results exhaustively discussed - Biased interpretations of analyzed data - The key arguments are not backed up by appropriate references. - Discussion does not provide an answer to the research question 		<ul style="list-style-type: none"> - Overstated what the data reveal - Vague and not supported by the data - No essential connection with the objectives - Essential results of the study underscored - Future perspectives of the study area provided are not specified - Implications of the study are missing

Plan it well

Clarity in identifying the type of study is paramount for effective communication in scientific manuscripts (Aga & Nissar, 2022). Authors must meticulously articulate the nature of their research to guide readers in comprehending the purpose, methodology, and implications of the study. The clarity begins with the manuscript title, which should succinctly reflect the study type, allowing potential readers to quickly discern the genre of the article. In the table provided, categorizing studies into distinct types facilitates a clearer understanding of their characteristics (Toronto & Remington, 2020).

This distinction is crucial because different types of studies, such as "Systematic Reviews," "Meta-analyses," or "Editorials," serve distinct purposes and require specific approaches (see Table 2). A well-defined study type aids readers, reviewers, and editors in assessing the appropriateness of the research for their needs or interests. It ensures that researchers convey their message effectively and that readers approach the content with the appropriate expectations. The transparency in delineating study types also contributes to the scholarly rigor of the research process, enabling the replication and validation of findings. The choice of manuscript type depends on the communication goals, and clarity in presentation enhances the overall impact and utility of the research (Aga & Nissar, 2022).

Table 2: Types of manuscript

Category	Type of Study	Description
Reviews	Systematic Review	Follows a structured, rigorous, and reproducible methodology to collect, analyze, and synthesize existing literature. Aims to minimize bias through explicit and reproducible methods.
	Bibliometric Review	Focuses on analyzing and summarizing the bibliographic information and citation patterns within a field. Cover broader topic and more descriptive compare to systematic review.
	Meta-analysis	Involves statistical analysis of data from multiple studies, often conducted with systematic reviews. Provides a quantitative summary for more robust conclusions.
	Scoping Review	Aims to map existing literature on a broad topic, identifying the main sources of evidence. Useful for exploring the breadth of research and determining the need for systematic review.
	Integrative/Critical Review	Synthesizes diverse sources, including experimental and non-experimental research, to provide a comprehensive understanding of a particular topic.
	Umbrella Review	Summarizes findings from multiple systematic reviews and meta-analyses on a specific topic. Provides a high-level synthesis of evidence across different reviews.
Original Article	Empirical Article	Presents empirical data derived from observation or experimentation.
	Conceptual Study	Focuses on future possibilities or theoretical frameworks, proposing new concepts or models without necessarily presenting empirical data.
	Descriptive Article	Presents detailed descriptions or analyses of specific cases. May include observational or qualitative data to illustrate phenomena.
	Case Study	An in-depth analysis of a specific case or instance, often involving detailed examination and exploration.

Short Communication	Short Communication	Brief articles providing comments, clarifications, or criticisms related to previously published material.
Editorial	Editorial	Expresses opinions or perspectives on current issues, trends, or controversies in the field. Often written by editors or experts in the subject area.

Embarking on the task of writing a scientific paper involves careful consideration of essential prerequisites to enhance the quality of the manuscript. This preparatory step ensures a well-established foundation for the study, facilitating a smoother writing process (Gastel & Day, 2022). A critical aspect of this preparation is conducting a thorough literature review to evaluate the originality of the research idea and identify gaps in existing knowledge. Recognizing the importance of being convinced about the merit of research objectives, this process contributes to the design of a study that is inherently easier to write (Gangaraju & Cushman, 2023). In the case of an original article, the manuscript's core revolves around the data, emphasizing the need for authors to possess a comprehensive understanding of the data and findings. This knowledge forms the backbone of the manuscript and ensures its integrity. Establishing authorship considerations early in the process is vital. This early clarity helps in avoiding potential conflicts and contributes to maintaining a cohesive collaboration throughout the writing process (Ryan, 2023).

The selection of an appropriate journal is a critical decision that should precede the commencement of writing. Authors must consider the manuscript's scope, originality, quality of evidence, and the significance of findings when making this decision. Several factors influence the choice of a scientific journal, including matching the journal's readership, visibility, indexing, publication frequency, acceptance rate, and publication expenses. Assessing these factors is integral to making an informed decision about the most suitable journal for the manuscript (Gastel & Day, 2022). Furthermore, authors should adhere to the specific guidelines outlined by the selected journal, as detailed in the "instructions to authors" section. Each journal may have distinct requirements, making it essential to follow these guidelines before commencing the actual writing process. This adherence ensures compliance with the standards and expectations set by the chosen journal (Youssef, 2022).

Article Structure

Composing and disseminating an impactful and effectively communicative for scientific manuscript is arguably one of the most challenging and yet crucial undertakings in any successful research endeavor (Zhang, 2023). A well-crafted scientific paper encompasses the significant factors that define its value, such as its structure, the logical progression of information, its content, context, and its conclusion.

The title, keywords and abstract are pivotal components of a research article, serving as the primary point of engagement for potential readers (see figure 1). These sections are crucial for several reasons (El-Sobky, 2021). Firstly, they create the initial impression, with a well-crafted title capturing attention and stimulating interest, motivating readers to explore the complete content. Secondly, titles and abstracts significantly contribute to the accessibility and discoverability of research in academic databases and search engines, enhancing the likelihood of discovery by scholars (Praharaj & Ameen, 2021). The abstract functions as a concise summary of the entire article, providing a snapshot of the research question, methods, results, and key conclusions. Readers often rely on this summary to swiftly gauge the study's relevance and significance. Furthermore, a well-crafted title and abstract significantly impact a research article's citation and visibility, as they contribute to the article's clarity and relevance (Hammond & Rech, 2020). In the context of journal and conference submissions, these elements are critical for editors and reviewers to assess the manuscript's suitability for publication. Lastly, titles and abstracts are particularly vital for researchers aiming for an international audience, as clear and concise

language helps overcome language barriers, ensuring accessibility on a global scale (Gangaraju & Cushman, 2023).



Figure 1: The three most important contents in manuscript.

Among the various guidelines available for authors to adhere to, the IMRAD scheme holds the utmost importance in determining the appropriate flow of content and structure in an original research paper (Eriksson, 2023). IMRAD, an acronym for introduction, methods, results, and discussion, is a prominent framework (depicted in Figure 2). Additionally, other components of the manuscript carry equal significance, including the title, abstract, keywords, and conclusion as shown in Figure 3. The IMRAD scheme was initially introduced in the early 1900s by publishers as a means to standardize the format of scientific manuscripts, and since then, it has become the universally utilized format in the majority of publishing houses. In the subsequent sections, we will provide a comprehensive explanation of the contents and criteria for each of these components (Eriksson, 2023). Furthermore, we will present a tabulated form (Table 1) outlining the most common errors made by authors within these sections.

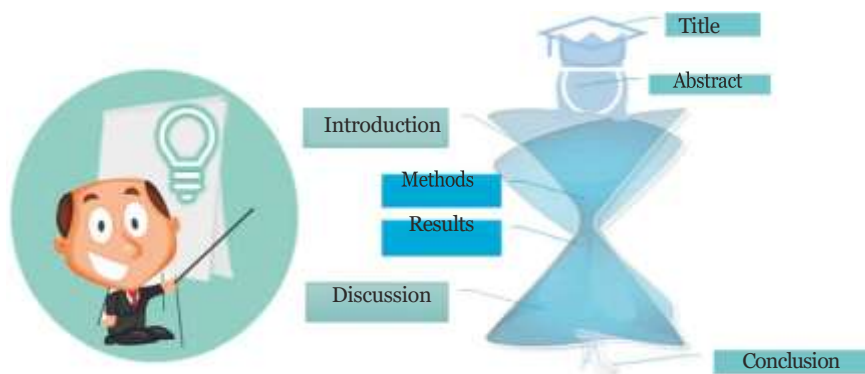


Figure 2: Manuscript structure based on IMRAD format.

Title selection

- (i) The title should be concise, specific and convey the main idea with maximum information

available on a subject. Preferable to avoid abbreviations,

- (ii) The title holds utmost significance within the paper, being the initial encounter readers have when searching for a suitable article (Eriksson, 2023). It embodies the primary contribution of the manuscript and should therefore possess qualities of simplicity, appeal, and memorability.
- (iii) Prolonged titles can prove cumbersome and may indicate a lack of the authors' comprehension regarding the true essence of the conducted research (Aga & Nissar, 2022).
- (iv) Ideally, the title should stem from keywords that are inherent to the main justification and/or objectives of the paper. The authors must proficiently construct an impactful title by integrating keywords that span across all sections of the manuscript's main text (Cuffe, 2022).
- (v) The inclusion of effective keywords within the title facilitates the effortless discovery of the paper across search engines, databases, and indexing services (Cortina, 2023). Ultimately, this leads to an increase in citations obtained.
- (vi) It is prudent for the title to accurately reflect the study's design or outcome. Consequently, authors are advised to contemplate multiple title options and diligently select the one that encapsulates the manuscript across all domains. Determining the paper's title should be one of the final considerations prior to submission for publication (Crijns et al., 2021).
- (vii) The utilization of abbreviations, jargon, redundancies (e.g., "a study in," "case report of," "Investigations of"), and passive voice should be strictly avoided when crafting the title.

Abstract writing

- (i) The abstract should be composed with the primary intention of addressing the three fundamental inquiries: "What novel contributions does this study make?", "How does it enhance the existing body of knowledge?", and "What are the prospective future directions?" (Cortina, 2023).
- (ii) A well-crafted abstract holds great significance within any scholarly document. For the majority of readers, the abstract represents the sole component of the paper that is extensively perused (Gastel & Day, 2022). Therefore, it should strive to effectively convey the complete essence of the paper.
- (iii) Depending on the specific journal, the word count of an abstract may vary between 150 and 300 words (Aga & Nissar, 2022). Additionally, an abstract can adopt either a structured or non-structured format in its presentation.
- (iv) An efficacious abstract serves as a concise summary of the entire study and should essentially encompass well-balanced information pertaining to six key elements: background, objective, methodology, findings, discussion, and the conclusion (Aga & Nissar, 2022).
- (v) An exemplary abstract possesses brevity, readability, and autonomy in disseminating information. Particular care should be exercised in incorporating the three Cs-contexts, content, and conclusion (C-C-C) (Figure 5) during the writing process (Modesitt et al.,

2022). Context elucidates the "gap in the literature," content encompasses the "previous work conducted in this study," and the conclusion delivers the "singular key takeaway message of the study." An effective abstract should be capable of narrating a comprehensive story to the readers (Bellicoso et al., 2022).

- (vi) An abstract should be drafted subsequent to the completion of the entire manuscript in order to be able to stand independently from the main body of text. It should be situated at the conclusion and serve as a self-sufficient entity (Eriksson, 2023).

The authors need to limit the statements in each section to two or three sentences (the key findings should be the focus). However, it is better to focus on results and conclusions, as they are the main parts that interest the readers and should include key results and conclusions made thereof (Seals, 2023). Inclusion of excessive background information, citations, abbreviations, use of acronyms, lack of rationale/aim of the study, lack of meaningful data, and overstated conclusions make an abstract ineffective (Modesitt et al., 2022).

Keywords selection

Keywords play a pivotal role in the indexing and discoverability of an article. The selection of appropriate keywords significantly influences whether readers can effectively locate the article, ultimately determining its potential for referencing. Additionally, keywords aid editors in identifying suitable reviewers for manuscripts during the peer-review process. When choosing keywords, it is essential to pick words and phrases that accurately reflect the essential topics covered in the manuscript (Sezer et al., 2022). Avoiding overly broad terms is crucial to ensure that the selected keywords precisely capture the core themes of the research. In this context, it is advisable to refrain from using words with a broad meaning that may lead to ambiguity. Furthermore, it is recommended to use only abbreviations that are firmly and unambiguously established within the respective field (Gastel & Day, 2022; Sezer et al., 2022). This practice enhances clarity and ensures that the chosen keywords effectively convey the specific focus and contributions of the article (Ryan, 2023). Thoughtful selection and adherence to these guidelines contribute to the article's visibility, aiding researchers and readers in quickly identifying and accessing relevant content.

Introduction writing

The introduction section of a scientific paper serves as a critical component, providing readers with insights into the authors' motivations, research questions, objectives, and the broader context of their study. It provides an opportunity for authors to emphasize their area of study and justify on why they are doing so (Aga & Nissar, 2022; Forero, 2023). The purpose of this section is to answer two important questions:

- What was being studied?
- What was the important question?
- What did we know about it before?
- How does this study advance knowledge?

An effective introduction usually accounts for about 10–15% of the paper's word count (Cortina, 2023). It should usually consist of four parts (Figure 5), each funneling four specific questions and moving from a more general perspective to the specific details (Behzadi, 2021; Malay, 2023).

The first part of the introduction should always address the question: "What is known about the area of study?" or "What does the current literature say about the problem?". The second paragraph should address the question: "What is unknown or has not been done on this topic/area of study?" Authors need to point out the aspects that have not yet been answered in relation to the broader area of the study (Cortina, 2023). The third part should identify the gaps in the current literature and answer the question:

“What gaps in the literature would be filled by your current study?” This part essentially highlights the shortcomings of the existing studies (Grimm & Harvey, 2022).

The fourth part should be devoted to effective writing “What do the authors want to do different to fill the gaps?” and “Why do they want to do this?” This paragraph contains two sections the first explains the rationale for the study and presents the hypothesis of the study in the form of questions, “What did the authors do? And why did they do it?”, and the second states the specific objectives that the authors will explore in this study to answer the question, “Why will this study be important?” and “What is the purpose of this study?” (Grimm & Harvey, 2022). In this part, the authors should introduce their precise research question or objective.

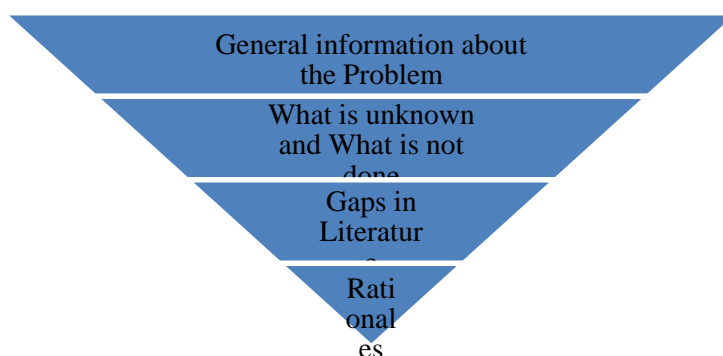


Figure 3: Funnel down for writing introduction from general to specific

Literature review writing

The literature review section in empirical articles serves as a foundational component that provides a comprehensive understanding of the research context, theoretical framework, and hypothesis development. It plays a pivotal role in justifying the relevance of the study, establishing the theoretical foundation, and formulating hypotheses (Aga & Nissar, 2022).

Background— The initial segment of the literature review delves into the background of the study. It elucidates why the chosen context (country, industry, organization, etc.) is apt for conducting the research. This involves a thorough exploration of regulatory, reform, and policy issues, unraveling the developments within the research setting (Malay, 2023). By contextualizing the study, the background section lays the groundwork for the reader to comprehend the necessity and appropriateness of the research (Bellicoso et al., 2022; Cortina, 2023).

Theoretical Framework— The subsequent section of the literature review constructs an overarching theoretical framework. This framework elucidates the fundamental predictions and hypotheses underpinning the study. It spans two to three pages, meticulously outlining how the chosen theoretical perspective interconnects the dependent and independent variables. Drawing on a blend of seminal and recently published studies, this section establishes a theoretical underpinning that guides the study's design and analysis (Weinstein, 2020).

Hypotheses Development— In this phase, the literature review transitions into hypotheses development. Each hypothesis is enriched through a meticulous process: (i) Drawing on Theory: Incorporating insights from the established theoretical framework. (ii) Empirical Literature: Examining both old and newly published studies to glean empirical evidence and identify inconsistencies or gaps. (iii) Research Setting/Contextual Insights: Incorporating insights from the specific research context, considering the unique aspects that might influence hypotheses. (iv) Formulating Hypotheses: Culminating in the formulation of hypotheses, the section synthesizes theoretical and empirical support

to present robust and well-justified hypotheses (Crijns et al., 2021). This process ensures that hypotheses are not arbitrary but rooted in the existing knowledge base, addressing gaps and inconsistencies identified in the literature. The result is a set of hypotheses that contributes to the theoretical framework, aligning the study with the broader body of research while addressing specific nuances of the chosen context. The hypotheses are a crucial bridge connecting the theoretical foundation with the empirical investigation, providing clear expectations for the study's outcomes (Ryan, 2023).

Methodology writing

The methodology section of a scientific article serves as the structural framework, encapsulating vital information about the conducted research. Comprising approximately 20–30% of the manuscript, this section intricately addresses two fundamental aspects: furnishing a detailed account of analysis execution and providing a rationale for the selection of a specific design or approach (Praharaj & Ameen, 2021).

Considered the linchpin of a scientific paper, the methods section demands clarity, statistical rigor, and a power analysis (Wang et al., 2017). Ideally, it should offer sufficient detail for fellow researchers to replicate the study. Initiate the method section by outlining the overall strategy and delve into a comprehensive discussion of various methodological events (Cortina, 2023). This level of detail ensures the reader understands what, where, and how the research was conducted.

Crucial information to be included in the methods section encompasses study design, settings, biological features of control, exposed or treatment groups, and variables measured. If the study involves a human model, additional details such as age, height, weight, gender, ethnicity, educational and socioeconomic status become pertinent (Malay, 2023). Furthermore, discuss the study protocol, inclusion and exclusion criteria, sample size and grouping, data collection and replication, pre-experiment and experimental handling, as well as measurement and procedural details (Zhang, 2023). The section should elucidate how findings were summarized, incorporating means, percentiles, standard deviations, standard errors of the mean, and confidence intervals. Additionally, a comprehensive discussion of the statistical software used, data computation, analysis, and probability development is essential (Gangaraju & Cushman, 2023).

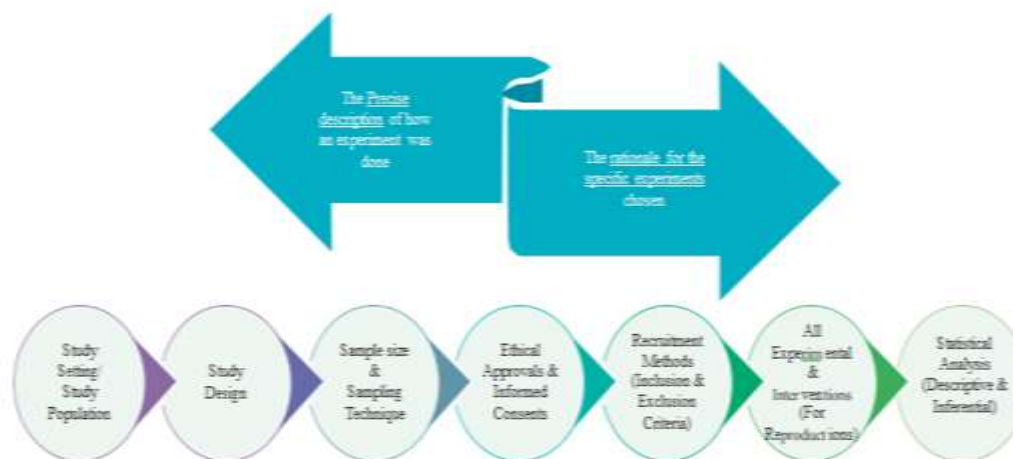


Figure 4: The seven structural methods of manuscript writing

To facilitate the replication of the study, it is essential to provide details of the equipment, chemicals, reagents, and physical conditions. Additionally, if any software is used for data analysis, it is important to mention it. In addition, the names of the manufacturers and their location such as city and country must also be given so that readers can benefit from them (Youssef, 2022). The composition of the methods section should adhere to the guidelines established at the beginning of the project in accordance

with the chosen study design. There are a variety of guidelines that authors must employ in order to streamline the writing of the methods section (Forero, 2023).

The methods should be able to answer the three questions that the audience seeks answers to when reading the paper: (1) what actions were performed? (2) Where were these actions carried out? And (3) in what way were these actions executed? (Grimm & Harvey, 2022). It is important to remember that the methods section focuses primarily on explaining the "HOW" of data collection/analyzed, rather than the "WHAT" aspect, which belongs in the results section (Weinstein, 2020). Therefore, it is important to provide a comprehensive description of the tools and techniques used for this purpose.

Results writing

This section plays a pivotal role in conveying study findings to readers (Bellicoso et al., 2022). It should offer a clear, concise, and objective presentation, forming the nucleus around which other sections revolve (Aga & Nissar, 2022). Written in past tense and structured scheme with subheadings, the results section aligns chronologically with the Methods section. It employs a pyramid model, starting with demographic data and progressing to inferential analysis, emphasizing the novelty of findings.

Comprehensive statistics, presented through tables and figures, enhance clarity (Malay, 2023). Authors should prioritize clear figure and table titles, distinguish between significant and non-significant results, and avoid unnecessary details, fostering a logical and impactful progression of key findings. The Results section demands precision, avoiding redundancy, and ensuring all visual elements maintain quality and readability (Eriksson, 2023).



Figure 5: Pyramid of the result discussion structure

Discussion writing

This section of a scientific paper holds paramount importance, serving as a platform to offer effective solutions, logical synthesis, and a profound understanding of research problems (Goyal & Santhanam, 2022; Grimm & Harvey, 2022). This section, constituting the C-C-C (content, context, and conclusion) triangle in a pyramidal design, aims to describe the meaning of results and interpret findings. Starting with major findings and testable hypotheses, the discussion connects results with existing literature, supporting interpretations and addressing contradictory findings (Cortina, 2023; Weinstein, 2020). The inverted pyramid structure, spanning 6-8 paragraphs, progressively moves from general to specific, linking findings to the literature.

Content and context intertwine, necessitating a comprehensive interpretation. Authors should analyze unexpected findings, provide alternative explanations with standard references, and guide readers to figures or tables for data interpretation. Crucially, the discussion avoids vague statements like "further research is needed" and instead identifies gaps in knowledge that could be filled. Before concluding, strengths and limitations of the study are acknowledged (Grimm & Harvey, 2022; Hammond & Rech, 2020).

The discussion follows a systematic approach (Gastel & Day, 2022). The first paragraph succinctly summarizes main findings, emphasizing uniqueness and importance. Subsequent paragraphs delve into the significance of the study compared to existing literature, contextualizing results and filling knowledge gaps (Mayyas & Alzoubi, 2022). The penultimate paragraph critically discusses study strengths and limitations, while the final paragraph establishes broad conclusions, leaving readers with a key takeaway. This well-balanced commentary contributes to the field and advances knowledge, offering new interpretations and practical applications (Forero, 2023; Grimm & Harvey, 2022).

Contextualizing the data aids in highlighting the study's advantages and disadvantages and provides readers with information on two crucial questions: the first is "What are the implications of the study?" Second, "How does the study further the field?" (El-Sobky, 2021). If the discussion section is incorporate with the results sections, these questions must be answered in the conclusion section. Commentary that effectively discusses this study's contribution to the field of research in particular and to the advancement of knowledge in general is well-balanced (Ryan, 2023). In essence, it should provide the audience with adequate knowledge to apply the new interpretation that has been offered in that sector (Gangaraju & Cushman, 2023).

Conclusion writing

The conclusion section serves as the culmination of an article, providing the final opportunity to convey the manuscript's significance and persuade reviewers of its merit for acceptance and publication. The conclusion should be succinct and convey to the reader three key points: what is the important lesson learned, what fresh research/gap has brought to the body of knowledge, and what is the field's future views found (Gangaraju & Cushman, 2023). In this critical section, authors are tasked with bringing closure to the questions posed at the beginning, creating a seamless connection between research motivation, methodology, findings, implications, and limitations.

Authors should strategically present both global and specific conclusions aligned with the research objectives, showcasing how they have successfully addressed the initial research questions and contributed to existing knowledge. Given the prevalence of trivial research, it becomes imperative for authors to explicitly articulate the significance and importance of their work, emphasizing why it stands out amidst contemporary studies. In the conclusion, authors are encouraged to discuss the implications of their findings, both practical and theoretical, as the primary focus. This involves exploring potential applications, extensions, and acknowledging any limitations discovered during the research. Additionally, authors should provide insights into future research directions, signaling ongoing investigations.

The conclusion section holds considerable sway over reviewers' decisions and leaves a lasting impression on readers. Similar to the title's role in creating the initial impression, the conclusion is the final opportunity to leave a positive and lasting impact on the overall evaluation of the manuscript. A well-crafted conclusion can effectively influence the decision to accept and publish the article.

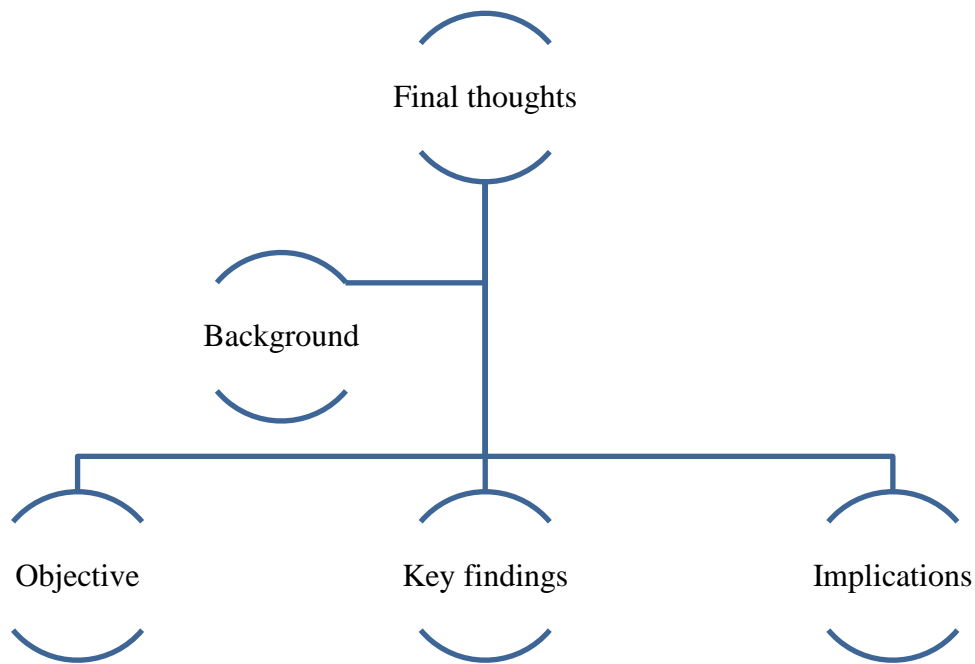


Figure 6: Crux in the conclusion section

Summary

Effective information transmission is a fundamental requirement for writing any scientific manuscript communication. We have included some important guidelines in this review that authors should refer to in order to ensure that their work is sufficiently flawless and error-free before submission, in order to avoid any desk rejections. However, it should be noted that, just like any other ability, writing is a skill and creativity that is developed via practice and is always a reflection of the writer's expertise. Furthermore, manuscript title, design and statistical analysis performed are the foundation for any successful publication. Table 3, summarizes the tips for scholars to avoid some of the common mistakes. Authors should constantly keep in mind that editors consider the amount of effort put into writing, adhering to criteria, and formatting the manuscript in addition to the novelty of the study. Consequently, the manuscript should be organized in accordance with the specified guidelines, such as IMRAD, CONSORT, and PRISMA, in letter and spirit. It is important to take care and not to make mistakes that have already been enlisted and may result in desk rejection. Generally speaking, a sanitation check comprising at least two reviews by colleagues should be completed before submitting the manuscript to the journal that best suit the paper and author should make sure all general formatting rules are fulfilled.

Table 3: General tips for writing a good research article.

Section	Tips
Title	<ul style="list-style-type: none"> - It should be concise, specific, easy to understand, and captivating. - Containing keywords that reflect the core contents of the manuscript while avoiding unnecessary technicalities/abbreviations. - Reflect on the method and context.
Abstract	<ul style="list-style-type: none"> - In general, the abstract should start with the research objective, followed by the research method, key findings, and contribution, - The findings and their indications are supposed to be the abstract's focus.

Keywords	<ul style="list-style-type: none"> - Only abbreviations firmly and unambiguously established in the field should be used. - <u>Highlighting the main construct and context of the study</u>
Introduction	<ul style="list-style-type: none"> - Research motivation and rationality should be the focus of this section. - The introduction should never be written like a literature review. - Clear and precise research questions/objectives. - Contribution related discussion should not be too general or repeat the research objectives.
Literature	<ul style="list-style-type: none"> - Literature (references) up to date. - Highlight the supporting and opposing literature. - Discuss the channels theoretical and practical channels.
methodology	<ul style="list-style-type: none"> - Ensure the section is clear and concise. - Ideally having subtitles (e.g., Data, variable measurement, research model, etc.) for good flow. - With proper justification, this section should answer three questions of when, where, how this study is conducted.
Results	<ul style="list-style-type: none"> - Should offer a clear and concise. - Ensure the statistical rigor and robust of the results.
Discussion	<ul style="list-style-type: none"> - Should be justified by explaining the channels. - Should be supported/compared with prior studies. - Should be linked to the theoretical based discussed in literature section.
Conclusion	<ul style="list-style-type: none"> - Discuss the implications of their findings, both practical and theoretical, as the primary focus. - Avoid new discussion, repeated statement, and citations.
General	<ul style="list-style-type: none"> - Referencing style should be consistent. - Grammatical check. - Verb tense should be consistent (preferable past tens). - Paraphrase result in the abstract and conclusion to avoid redundancy. - Abbreviation should be defined only first time used.

References

- Aga, S. S., & Nissar, S. (2022). Essential Guide to Manuscript Writing for Academic Dummies: An Editor's Perspective. *Biochemistry Research International*, 2022.
- Behzadi, P. (2021). Peer review publication skills matter for academicians. *Iranian Journal of Pathology*, 16(1), 95-96.
- Bellicoso, D., Valenzano, T. J., & Topolovec-Vranic, J. (2022). Effectiveness of a manuscript writing workshop on writing confidence amongst nursing and health disciplines clinicians. *Journal of Medical Imaging and Radiation Sciences*, 53(4), S79-S84.
- Buzi, P. (2022). New Testament Titles in the Coptic Manuscript Tradition: An Overview. *Religions*, 13(6), 476.
- Cortina, M. S. (2023). The why, what, and how of publishing a manuscript: A blend of art and science. *Indian Journal of Ophthalmology*, 71(8), 2930-2931.
- Crijns, T. J., Ottenhoff, J. S., & Ring, D. (2021). The effect of peer review on the improvement of rejected manuscripts. *Accountability in Research*, 28(8), 517-527.

- Cuffe, P. (2022). Codifying Systematic Manuscript Preparation Checklists as a Training and Productivity Resource for Research Students. 2022 IEEE Global Engineering Education Conference (EDUCON),
- El-Sobky, T. A. (2021). An author's guide to mastering academic writing skills: Discussion of a medical manuscript. *Journal of Musculoskeletal Surgery and Research*, 5(4), 227-234.
- Eriksson, D. (2023). The art and science of scholarly writing: framing symmetry of specificity beyond IMRAD. *European Business Review*(ahead-of-print).
- Forero, D. A. (2023). Preparing and Structuring a Manuscript for Publication. In *The Quintessence of Basic and Clinical Research and Scientific Publishing* (pp. 695-705). Springer.
- Gangaraju, R., & Cushman, M. (2023). How We Write a Manuscript Discussion. *Research and Practice in Thrombosis and Haemostasis*, 7(8).
- Gastel, B., & Day, R. A. (2022). *How to write and publish a scientific paper*. Bloomsbury Publishing USA.
- Goyal, M., & Santhanam, S. (2022). Writing manuscript better–Part II (Title, abstract, keywords, references, and miscellaneous). *Indian Journal of Rheumatology*, 17(Suppl 2), S298-S305.
- Grimm, L. J., & Harvey, J. A. (2022). Practical steps to writing a scientific manuscript. *Journal of Breast Imaging*, 4(6), 640-648.
- Hammond, D. A., & Rech, M. A. (2020). A “how-to” guide for effectively writing a publishable research manuscript. *Journal of the American College of Clinical Pharmacy*, 3(4), 818-824.
- Malay, D. S. (2023). Effective manuscript preparation and submission. *Clinics in Podiatric Medicine and Surgery*.
- Mayyas, F., & Alzoubi, K. (2022). Awareness and knowledge of manuscript writing and research integrity: A cross sectional survey among graduate students. *Heliyon*, 8(11).
- Modesitt, S. C., Havrilesky, L. J., Previs, R. A., Rauh-Hain, J. A., Straughn, J. M., Bakkum-Gamez, J. N., Fuh, K. C., & Cohn, D. E. (2022). Ridiculously good writing: How to write like a pro and publish like a boss. *Gynecologic Oncology Reports*, 42.
- Praharaj, S. K., & Ameen, S. (2021). Writing the methods section in a manuscript. *Kerala Journal of Psychiatry*, 34(1), 79-83.
- Pratt, M. G., Sonenshein, S., & Feldman, M. S. (2022). Moving beyond templates: A bricolage approach to conducting trustworthy qualitative research. *Organizational research methods*, 25(2), 211-238.
- Ryan, M. S. (2023). Writing an Educational Manuscript. In *Education Scholarship in Healthcare: The Health Scholar's Toolbox* (pp. 169-187). Springer.
- Schwen, L. O. (2020). Ten simple rules for typographically appealing scientific texts. *PLoS Computational Biology*, 16(12), e1008458.

- Seals, D. R. (2023). Publishing particulars: Part 2. Tips for effective manuscript development. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*, 324(3), R393-R408.
- Sezer, O., Baser, D. A., Oztora, S., Caylan, A., & Dagdeviren, H. N. (2022). The Importance of Keywords and References in a Scientific Manuscript. *Eurasian Journal of Family Medicine*, 11(4), 185-188.
- Toronto, C. E., & Remington, R. (2020). *A step-by-step guide to conducting an integrative review*. Springer.
- Weinstein, R. (2020). How to write a manuscript for peer review. *Journal of Clinical Apheresis*, 35(4), 358-366.
- Youssef, S. (2022). Basic steps for writing a successful research paper. *World Journal of Pharmaceutical Research*. 11(4).
- Zhang, Q. (2023). Board 97: Is There a Relation between Research Topics and High-Impact Journals in Biomedical Engineering? 2023 ASEE Annual Conference & Exposition,