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Key elements for writing a scientific article

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ABSTRACT: The study describes a comprehensive process for writing a scientific article that reports on research, detailing each phase from the formulation of the title to the bibliography and proposing comprehensible and rigorous language. Under the interpretative paradigm and a qualitative approach, the research uses the hermeneutic method to analyse the contributions of authors specialising in academic writing. The results show that writing an article is a demanding communicative practice, where clarity and coherence guarantee the comprehension of the work. It also shows that each section fulfils a specific function, and that it is essential to present the results in an orderly and accessible way for the scientific community. The hermeneutic analysis made it possible to integrate different theoretical perspectives and to underline that scientific writing is both a technical exercise and an epistemological process. It is concluded that a clear, precise and well-structured text enhances the dissemination and impact of knowledge in the contemporary global academic community.

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1. Introduction

Research is the foundation of knowledge, as it enables the creation, transformation and innovation aimed at solving problems, meeting social needs and improving the quality of life. It is recognised as the main driver of progress in the social, cultural, economic and technological spheres. For this reason, the dissemination of research results acquires great relevance, not only because it allows the dissemination of new knowledge, but also because it becomes a starting point for future research, fostering the collective construction of knowledge.

While it may be easy for a researcher to write for him or herself, the real challenge lies in writing in such a way that the results obtained are clearly understood and interpreted by others. In this sense, academic writing and publishing stimulates critical thinking, strengthens personal demands in terms of coherence and precision of discourse, and promotes the development of fundamental competences. These include the ability to carry out specialised bibliographic searches, the capacity for synthesis, the logical organisation of ideas, the critical analysis of data and the integration of information with the contributions of other previous studies.

In addition, the act of writing promotes the permanent updating of knowledge, through the revision of the state of the art and available bibliographic sources. This process also contributes to the strengthening of linguistic skills such as grammar, syntax, semantics, rhetoric and spelling, which has a direct impact on the academic training of the researcher and on the enrichment of the learning processes of both themselves and their readers.

The documentary analysis, developed from the interpretative paradigm with a qualitative approach and hermeneutic method, made it possible to identify the main guidelines for the correct writing of a scientific

article. Clear guidelines were structured from the elaboration of the title to the bibliography, highlighting the use of understandable, technical and appropriate language for academic dissemination. Likewise, there was consensus on the importance of presenting the results in a precise, orderly and accessible way for the scientific community.

The findings of the study highlight that writing a scientific article is not only a formal task, but a rigorous communicative practice that requires clarity, coherence and knowledge of academic language. The interpretative review of various sources allowed us to understand how each stage from the title to the bibliography fulfils a specific function for the validation and understanding of the research work. The use of the hermeneutic method made it possible to establish a critical reading of the most relevant theoretical proposals on scientific writing.

It is concluded that effective scientific writing requires not only knowledge of the structure of the article, but also the application of criteria of clarity, precision and order that guarantee its comprehension by the academic community. A well-written article strengthens the communication of knowledge and ensures the impact of the findings. Furthermore, the hermeneutic approach allowed for a reflexive interpretation of the theoretical contributions reviewed, reaffirming that scientific writing is both a technical practice and an epistemological construction.

2. Methodology

This document was designed under the interpretive paradigm, which allows for understanding the meanings and senses constructed around social and academic phenomena, in this case, scientific writing. A qualitative approach was adopted, given that the study's focus was on the in-depth interpretation of content rather than the measurement of quantifiable variables.

Hermeneutics was adopted as a central method, understood as a fundamental tool for analyzing, interpreting, and deeply understanding the reviewed literature (Martínez et al., 2024), as well as for unraveling the theoretical contributions proposed by various authors specializing in scientific writing (Salcedo et al., 2022). This methodological approach allowed for a critical, reflective, and contextualized reading of the academic sources consulted, facilitating the identification of orientations, structures, discursive styles, and formal criteria that support the proper preparation of a scientific article. Hermeneutics, in this sense, not only guided the interpretation of the content but also contributed to building a comprehensive understanding of the practices and requirements that characterize academic writing in the research field.

The corpus for analysis consisted of academic texts, style manuals, research articles, and methodological guides relevant to the field of scientific writing. Sources were intentionally selected, prioritizing those documents with academic recognition and thematic relevance. The interpretation was guided by emerging categories such as clarity, structure, style, communicative rigor, and knowledge dissemination, which were systematized to consolidate the study's results.

3. Results

Scientific writing is a fundamental process for communicating knowledge clearly, precisely, and objectively. It requires meeting specific criteria that ensure coherence, rigor, and validity in the presentation of results. A scientific article, especially in its original form, must reflect unpublished and verifiable findings, following a basic structure: introduction, methodology, results, and conclusions. The writing should be characterized by the use of technical language, a concise style, and a logical organization of ideas. Following style recommendations and formal requirements allow for the production of quality texts that meet the standards of the academic community. The main aspects related to scientific writing are addressed below: the requirements necessary to adequately prepare an article, the characteristics of this type of writing, the most relevant style recommendations, as well as the specific features of the scientific article, including its distinctive features and formal structure.

3.1. Scientific Writing

Scientific writing can be defined as a practice that combines the art and technique of communicating the knowledge generated through research in a valid and understandable manner. Its objective is to ensure that readers not only access the information but also understand it clearly and accurately. In this sense, it

is essential to consider what is written and how it is written, so that the final report faithfully reflects both the content and form of the knowledge produced (Rojas, 2017).

The importance of scientific writing in academic and professional training is unquestionable. Publishing is not an accessory act, but an essential stage of the research process. A research project cannot be considered complete if its results have not been disseminated through a formal publication. In fact, withholding findings without sharing them with the scientific community violates the ethical principles of research, as it limits the collective advancement of knowledge.

Scientific writing is also the most effective means of transmitting the knowledge acquired, generated, or replicated as a result of a study. When integrated into pedagogical processes, it can also function as an assessment tool, as it demonstrates the critical appropriation of knowledge by the student or researcher in training. Consequently, rigorous research is only considered complete when it culminates in the publication of a scientific article, thus allowing its contributions to be integrated into the body of available scientific knowledge.

3.1.1. Requirements for Correctly Writing a Scientific Article

According to Mary (2013) and Duque and Díaz (2020), writing a scientific article requires meeting a series of requirements that guarantee clarity, coherence, and communicative quality. Among the fundamental aspects is the construction of complete and understandable sentences, as well as the creation of paragraphs that guide the reader logically and fluidly through the different topics addressed. The precise use of language, along with appropriate punctuation, allows for the generation of a clear, simple, and accessible text.

Likewise, it is essential to establish a work plan that includes defined dates for starting and completing the writing process. Setting aside specific times for writing, avoiding unnecessary delays, promotes discipline and continuity in the process. Manuscript revision is also a critical phase; writing a quality article requires careful writing and constant revision, free from improvisation and haste. In turn, the author must be familiar with the different stages of the research process and the corresponding methodologies, as well as master the use of academic databases to support their work with up-to-date and relevant sources. Finally, it is essential to have skills in synthesis, analysis, argumentation, reflection, proposal, and comparison, as these competencies strengthen the depth, originality, and rigor of the scientific text.

3.1.2. Characteristics of Scientific Writing

To effectively and accurately present the results of a research process using different types of articles or publications, it is necessary to understand the basic principles or characteristics of scientific writing.

Precision in Scientific Writing: Precision in writing involves selecting the exact words that faithfully express what one wishes to communicate. In the context of scientific writing, this principle takes on special relevance, as the main objective is to convey information clearly and unambiguously. The author must ensure that their ideas move from thought to text and, from there, to the reader, who is unable to ask questions, request clarification, or interpret beyond what has been written (Ñaupas, et al., 2018).

For this reason, writing accurately requires not only mastery of the technical and conceptual language of the field of study, but also the ability to anticipate the reader's needs. In other words, the writer must adopt an empathetic stance, considering that the reader does not share their immediate context, nor does he necessarily possess the same references. Consequently, ambiguities, vague terms, inferences, or imprecise generalizations should be avoided.

Developing this skill involves writing with communicative intent, carefully considering each term, definition, and argument, and ensuring that the information conveyed is unambiguous. Accuracy not only improves comprehension but also strengthens the credibility of the text and the trustworthiness of the knowledge being shared (Olarte, 2024).

Clarity in Scientific Writing: According to Ñaupas et al. (2018), Ramírez et al. (2023), Pérez et al. (2024), Olarte (2024), and Romero (2024), clarity is an essential quality of scientific writing, as it allows the reader to understand the text quickly and accurately. An article achieves clarity when it uses simple language, avoids unnecessary technical terms, constructs sentences correctly, and develops each idea within a logical and coherent order.

To achieve this level of comprehension, it is essential that each paragraph focuses on a single central theme or idea, organized progressively, facilitating the connection between one section and another. Likewise, the excessive use of complex grammatical structures, as well as ambiguous or vague expressions that can

generate confusion, should be avoided.

Clarity also involves considering the reader as the active recipient of the text. Therefore, the author must anticipate potential difficulties in interpretation and ensure that the content is presented directly, fluently, and structured. A clear text not only improves readability but also increases the effectiveness of scientific communication, allowing the results, arguments, and conclusions to be properly understood and interpreted by the academic community.

Brevity in scientific writing: According to Ñaupas et al. (2018), Ramírez et al. (2023), Pérez et al. (2024), and Romero (2024), brevity in scientific writing consists of communicating only information relevant to the topic at hand, using the fewest possible words without sacrificing precision or clarity. This characteristic is essential to ensure that the message reaches the reader directly and unambiguously.

Brevity involves eliminating unnecessary repetitions, avoiding redundant explanations, and eliminating superfluous terms. The longer and more complex the sentences, the greater the likelihood that the meaning of the content will be diluted and the comprehension of the message will be hindered. Therefore, it is recommended to construct short, well-structured sentences focused on the main idea, allowing each word to fulfill a specific function in the development of the text. (Pérez et al. 2024).

In the context of scholarly communication, brevity not only promotes clarity but also respects the time of specialized readers, who expect concise, relevant, and easily searchable information. Thus, writing briefly demonstrates intellectual rigor and respect for the conventions of academic discourse.

Formality in Scientific Writing: According to writing experts Ñaupas et al. (2018) and Ramírez et al. (2023), formality in scientific writing involves using language appropriate to the academic and specialized context in which the article is written. This means avoiding colloquial expressions, idioms, informal phrases, or structures typical of everyday conversation, which can detract from the seriousness, objectivity, and precision of the text.

The use of formal language not only contributes to maintaining the neutrality and rigor of scientific discourse but also ensures that the message is perceived as legitimate by the academic community. The writing should display an impersonal, objective, and technical tone, supported by terms specific to the disciplinary field, but without excessive use of unnecessary jargon or technical terms that hinder understanding.

Likewise, formality requires the correct use of grammatical, syntactical, and spelling rules, as well as respect for the editorial conventions specific to the scientific genre. In this sense, maintaining a formal style is an essential condition for achieving credibility, argumentative coherence, and acceptance in recognized scientific dissemination spaces.

3.1.2. Writing Style Recommendations

Below are a series of style recommendations aimed at strengthening the quality of scientific writing. These suggestions address fundamental elements of the writing process, such as creating an effective introduction, using precise and concise language, constructing an interpretive and reasoned text, and the importance of clarity in the presentation of ideas. Finally, guidelines are offered for writing an appropriate conclusion that provides coherence and solidity to the content presented. Each of these aspects contributes to the development of rigorous, understandable, and logically and communicatively structured scientific texts.

The Introduction in Scientific Writing: According to Ñaupas et al. (2018) and Duque and Bohórquez (2020), a well-constructed introduction in an academic text serves to capture the reader's attention and contextualize them in the topic to be addressed. To achieve this, it is suggested to begin with a direct quote from a recognized author in the field, whose ideas are relevant and meaningfully introduce the central theme of the writing.

Another effective strategy is to state a relevant fact, a striking statistical data, or an extraordinary situation related to the object of study. This resource helps to spark the reader's immediate interest and establish a link between reality and the research approach.

Likewise, the use of an introductory question is a useful tool to engage the reader from the beginning, guiding them toward the problem or question that will guide the development of the text. In all cases, the entry must meet the criteria of clarity, coherence, and relevance, as it represents the reader's first contact with the content and largely determines their willingness to continue reading the article.

Precision in Scientific Writing: For Ñaupas et al. (2018), Duque and Bohórquez (2020), and Arnau and Sala (2023), precision is an essential quality in scientific writing, as it ensures that ideas are conveyed accurately and unambiguously. Writing precisely involves carefully selecting words so that each term fulfills a specific function within the text and faithfully reflects the author's intended meaning.

Furthermore, precision requires a logical and rigorous organization of ideas. To achieve this, it is advisable to classify information according to clear criteria, such as the chronological order of events, causal relationships between phenomena, comparisons between concepts or findings, or the prioritization of ideas based on their relevance within the argument (Duque and Bohórquez, 2020).

This process not only improves the clarity and comprehension of the text but also strengthens its scientific validity, as it allows the reader to easily identify the argumentative thread, the evidence presented, and the internal logic of the reasoning. Consequently, precise writing contributes significantly to the credibility and coherence of a scientific article.

Conciseness and interpretation in scientific writing: According to Ñaupas et al. (2018), Duque and Bohórquez (2020), and Arnau and Sala (2023), conciseness in scientific writing involves expressing ideas in the fewest possible words, without compromising the clarity or precision of the message. Being concise requires using exact terms, avoiding unnecessary repetitions, and avoiding empty expressions, filler words, or abstract words that do not contribute substantive content to the text.

Likewise, it is recommended to moderate the use of the verbs "To Be verb", as they often do not significantly contribute to the informative value of sentences. Economy of language, when accompanied by precision, strengthens the communicative effectiveness of the writing and facilitates comprehension by the specialized reader. (Duque and Bohórquez, 2020).

Regarding the interpretive component, these same authors agree that every judgment, assessment, or statement in an academic text must be supported by verifiable evidence. Therefore, it is unacceptable to express opinions without empirical or theoretical support. Interpretations must be based on relevant citations, quantifiable data, documented background, and consistent analyses that validate the conclusions presented. This interpretive rigor is essential to maintain the objectivity of the discourse and ensure the credibility of the shared results.

Clarity in Scientific Writing: Clarity is an essential condition in scientific writing, as it allows the reader to easily understand the content and purpose of the text. To achieve this communicative objective, it is essential to use precise and concrete language, avoiding ambiguous or overly technical terms that could hinder the interpretation of the message.

Each sentence should be constructed with a single main idea, expressed in simple words and short phrases of no more than 20 words. This practice facilitates reading, improves fluency, and reduces the risk of confusion or misunderstanding. Furthermore, when presenting complex or specialized concepts, the use of examples, explanatory boxes, or analogies is recommended to help illustrate and clarify the content without losing academic rigor.

Duque and Bohórquez (2020), Ramírez et al. (2023), Pérez et al. (2024), Olarte (2024) and Romero (2024) argue that clarity is also related to the value of communicability, understood as the author's ability to adapt his or her discourse to a reader who, while perhaps an expert, does not necessarily share the same immediate context. In this sense, writing clearly is not only a linguistic skill, but also an ethical and pedagogical attitude that demonstrates respect for the reader and a commitment to the accurate dissemination of scientific knowledge.

Closing in Scientific Writing: Duque and Bohórquez (2020), Pérez et al. (2024), and Olarte (2024) agree that the closing of a scientific text should constitute a thoughtful synthesis of the ideas developed, the data analyzed, and the information obtained throughout the document. This final section represents a key space for the author to interpret the findings with a critical eye, highlighting their relevance, scope, and potential theoretical or practical implications.

The closing can also take an open form, inviting the reader to develop their own interpretations based on the elements presented. This strategy, common in texts with a qualitative or exploratory focus, stimulates critical thinking and allows the discussion to extend beyond the document.

Regardless of the approach, the closing section should maintain the qualities that characterize good scientific writing: clarity of exposition, concise language, and precision in the terms used, and a fluid structure that makes the text a coherent and enjoyable read. A well-constructed conclusion not only gives

a sense of closure to the writing, but also reaffirms the value of the article as a valid contribution to scientific knowledge.

3.2. Scientific Article

The primary function of a scientific article is to communicate clearly, concisely, and truthfully the results of research, as well as relevant ideas and debates in a specific field of knowledge (UNESCO, 1983). The fundamental purpose of this text typology is to share original findings with the academic and scientific community, contributing to the advancement of knowledge, the empirical validation of existing theories, or the formulation of new hypotheses.

Unlike other forms of personal or introspective writing, the scientific article is not conceived as a self-referential exercise or as a document that the author keeps for themselves. Rather, it is aimed at an external audience, composed of researchers, teachers, students, and professionals interested in the subject area addressed. Consequently, it must present information in an accessible manner, without losing the methodological rigor or conceptual precision that characterizes it. The content of the article must be structured in such a way as to facilitate its understanding by third parties, that is, readers who did not participate in the research but who, based on their academic training, can interpret and evaluate the reported findings. This requirement implies the use of appropriate technical language, but also a commitment to clear writing and a logical organization of ideas that fosters critical reading and analysis by the scientific community.

In short, the scientific article stands as an essential vehicle for the circulation of knowledge, allowing the results of research to transcend the individual sphere and become part of the collective body of disciplinary and interdisciplinary knowledge.

A scientific article can take various forms: it can be a report on the results of scientific research or the presentation of findings that, to be considered valid, must be real, reliable, verifiable, and capable of being replicated by other researchers.

This type of text requires the use of technical language, a defined structure, and a format regulated by the so-called "scientific style." Likewise, it must respect writing principles that prioritize clarity, simplicity, order, and conciseness of the information presented.

According to Venegas-Velásquez (2005), a scientific article is a written and published report that describes, in a structured, precise, truthful, and original manner, the results of research developed based on the scientific method, respecting the methodological specifics of each discipline. It is a textual production that offers new knowledge, previously validated by the scientific community, first by specialized peers or expert readers, and second by the editors and reviewers of the journal that publishes it.

3.2.1. Characteristics of the Original Article

The original article is a formal document that presents, in detail and systematically, the unpublished results of a completed investigation. Its structure typically consists of four fundamental sections: introduction, methodology, results, and conclusions, as noted by Mari Mut (2013) and Rojas (2021).

This type of article addresses a scientific problem and is distinguished by the validity and reliability of the results presented, which can be derived from both experimental and theoretical research. Its original nature lies in the fact that it communicates, for the first time, the findings of a specific investigation, thus contributing to the advancement of knowledge in the corresponding field.

Generally, these articles are published in specialized scientific journals, presented at academic conferences, or disseminated through other channels recognized by the scientific community. Their content may be accompanied by graphs, tables, photographs, or illustrations that complement and clarify the information presented (Mari Mut, 2013).

Regarding authorship, the number of authors may vary, and their order usually reflects the level of participation or contribution to the development of the study. This is a public text that must be structured and controlled according to editorial and scientific quality criteria.

The original article requires compliance with fundamental writing principles, including methodological rigor, logical coherence, expository clarity, and conceptual precision. Furthermore, it requires the use of technical and specialized language appropriate to the field of knowledge addressed. The writing should be brief, concise, and maintain an appropriate style, respecting the ethical principles that govern scientific communication (Rojas, 2021).

3.2.2. **Structure of the original article**

The title of a scientific article: The title of a scientific article serves a fundamental function: to guide the reader and spark their interest in the study through a brief, clear, and precise formulation. This initial sentence should coherently and completely summarize the essential content of the work, accurately expressing the approach to the research topic through the use of concise language.

To prepare it, it is necessary to carefully select words, ensuring their proper association and logical order, so that they offer a clear indication of the content that will be developed in the body of the text. It is recommended to use as few terms as possible, as long as they accurately describe the object of study. The ideal title length should be between 8 and 15 words, avoiding redundancies, irrelevant terms, or generic phrases such as "research on" or "a study about."

Likewise, it is suggested to avoid the use of parentheses, abbreviations, acronyms, or complex words that are difficult to pronounce or understand, especially if they are not widely recognized in the discipline. The title should be well-written, self-explanatory, and contain only key terms that accurately reflect the article's content. It's also a good idea to review keywords that could facilitate identification and retrieval of the document in academic databases.

Ultimately, the title is the most important sentence in the article, as its correct formulation directly influences the reader's decision to continue reading or consult the abstract.

The abstract: The abstract represents a key tool for disseminating the article's content, as it accurately and concisely presents the central objective, the methodology used, the findings obtained, the results achieved, and the most relevant conclusions of the study. It allows readers to quickly identify the article's topic and, in many cases, constitutes the only section visible in specialized databases, being the first thing consulted by those accessing the text. It also highlights the main ideas of each section of the manuscript and objectively integrates the overall structure of the research.

When writing the abstract of a scientific article, it is suggested that it should not exceed 200 words and should offer a clear and concise overview of the content, including relevant results expressed, if necessary, through quantitative data that demonstrate the contributions of the research. The abstract should be written in accordance with the type of article and the editorial policies of the journal or academic event to which the manuscript is submitted (Duque and Bohórquez, 2020).

A single paragraph should outline the main objectives of the study, its scope, the methods used, the most notable findings, and the conclusions drawn. Three or more keywords should then be included.

This section should answer fundamental questions such as: What was investigated? What was the purpose? What was discovered? and, why are these results significant? If the article is in Spanish, the abstract should also be submitted in English (Mari Mut, 2013).

It is recommended to avoid critical or evaluative interpretations, as the objective of the abstract is to objectively and informatively present the essential aspects of the work. Furthermore, it is important to consider that each publication or event may have specific requirements regarding its structure, length, and context, so these guidelines must be followed precisely. Finally, it is advisable not to repeat the title of the article within the abstract to avoid wasting valuable characters.

Keywords: According to Mari Mut (2013) and Duque and Bohórquez (2020), keywords generally constitute a list of three to five alphabetically ordered terms directly related to the content of the article or text. These terms, also known as lexemes, can be simple or compound words, or even short expressions centered on a noun, and are intended to facilitate efficient information searching in scientific databases.

It is recommended that both the title and abstract of the article include the selected keywords, thereby maintaining thematic coherence and improving their location and indexing in specialized systems. When selecting keywords, it is advisable to consult academic thesauri from various disciplines and entities, as these contain standardized technical terminology that favors the visibility of the text and its proper classification in scientific repositories.

Introduction: According to McKerrow (2005), Mari Mut (2013), Duque and Bohórquez (2020), Arnau and Sala (2023), and Pelegín and Guevara (2023), the introduction of a scientific article must respond in a clear and structured manner to several fundamental elements that allow the study to be contextualized and justified. First, it must present the research problem, highlighting its relevance and the social, scientific, or academic impact of its approach. It is also necessary to define the main objectives guiding the research and, if applicable, state the hypotheses formulated.

Similarly, the introduction should include a brief review of relevant theoretical references and some indicators that demonstrate the existence and magnitude of the problem addressed (McKerrow (2005), Mari Mut (2013), Duque and Bohórquez (2020). A summary description of the methodological approach adopted, justifying the choice of design and the techniques used, is also expected. Finally, according to the same authors, it is advisable to mention the main results obtained and the most relevant conclusions or findings, in order to provide an overview of the research's contribution.

According to scientific writing experts such as McKerrow (2005), Mari Mut (2013), Duque and Bohórquez (2020), Arnau and Sala (2023), and Pelegín and Guevara (2023), the introduction of an article should be written based on criteria of clarity, relevance, and argumentative coherence. These authors agree that the introductory text can incorporate elements from the initial formulation of the project or the final research report, as long as they adapt to the format of a scientific article.

They also recommend contextualizing the topic at a national and international level, integrating original and relevant references that justify the research and guide the reader. The introduction should accurately present the problem addressed, highlighting its relevance, scope, and purpose, while motivating the reader to continue reading. Duque and Bohórquez (2020)

It is suggested that ideas be organized into two or three integrated paragraphs that include the objective of the study, the methodology used, the main findings, and the conclusions. Furthermore, it is essential to ensure consistency between the different sections of the article and avoid information overload; therefore, the essential and significant information of the study should be prioritized.

Methodology: In the methodological section of a scientific article, the researcher logically and coherently presents the process followed to achieve the stated objectives, consistent with the study design. This section should detail the paradigm and methodological approach adopted, as well as the type of research and specific methods used. A precise description of the data collection tools, such as interviews, surveys, documentary analysis, among others, is also expected, depending on the nature of the study.

It is also necessary to specify the target population, the selected sample, and the inclusion or exclusion criteria applied. Furthermore, the researcher must indicate how the information will be triangulated to ensure the validity and reliability of the results. Depending on the type of research or intervention, and the corresponding disciplinary field, the researcher must explain the nature of the sample (whether human, textual, experimental, or other) and its relevance to the research problem.

Recommendations for writing the methodology: Authors specializing in scientific writing, such as Mari Mut (2013), Castro-Rodríguez et al. (2018), Duque and Bohórquez (2020), Rojas (2017, 2021), Arnau and Sala (2023), and Pelegín and Guevara (2023), agree that a well-developed methodology must be constructed in accordance with the stated objectives, the epistemological approach, and the adopted research design. For these experts, a rigorous methodology not only responds to the type of study but must also be influenced by the clarity of the problem formulation, the relevance of the techniques employed, and the logical sequence of the research process. Please note:

The following is the third-person paraphrase, maintaining the required points and style:

- It is essential to carefully examine the methodology used in the research. If it is a novel method, it must be described in detail and exhaustively; if multiple methods are used, the corresponding references must be included and each one briefly explained.

- The methodological presentation must be structured sequentially, coordinating the research objectives, the defined analytical variables or categories, and, where applicable, the experimental design. This description must follow a logical and chronological order that includes the organization, processing, and analysis of the data, as well as the systematization of the information, the statistical methods employed, and the software used.

- This section should preferably be written in the simple past tense. Although the past perfect is possible, it is less common, especially in Spanish texts. It is important to maintain textual flow and an orderly description that relates the results to the tables and figures presented. In the technical section, the methods, materials, equipment, and procedures should be detailed with sufficient precision so that another researcher can replicate the study based on the information provided.

- The use of abbreviations and symbols should be appropriate: they should be written in full the first time they are mentioned, followed by the corresponding abbreviation in parentheses.

- It is necessary to ensure consistency between the research question, the hypotheses formulated, the data collected, the sample or population selected, the procedures performed, and the methods applied.

- Finally, it is recommended to maintain internal consistency between the methodology and the results, which can be achieved through subheadings that connect each procedure with its respective findings, thus facilitating the reader's understanding.

Results: In the results section, it is recommended to organize the information in a clear and visually striking manner using graphic resources such as figures, tables, charts, maps, and self-explanatory graphs, which facilitate the understanding of the findings. Data analysis should be carried out based on the methodological approach adopted (quantitative, qualitative, or mixed), employing techniques and measures that fit the characteristics of the study. It is essential that the results presented are representative and consistent with the research question formulated, highlighting those findings that provide significant evidence regarding the problem posed (Texidor et al., 2020; Rojas, 2021).

Recommendations for writing the results: The results constitute a central chapter in the structure of a scientific article, since they allow the findings obtained during the research process to be presented in a systematic and objective manner. Various specialists in academic writing, such as Padrón et al. (2014), Rojas (2017), Mertler (2020), and Pelegín and Guevara (2023), agree on the importance of presenting this section with clarity, coherence, and methodological rigor. These authors recommend that the results be presented taking into account the following:

- In the results section of a scientific article, it is recommended that the writing follows a logical sequence consistent with the proposed objectives and the implemented methodology. This chapter, although usually one of the shortest in the manuscript, represents the empirical validation of the study, as it demonstrates the concrete contributions and knowledge generated.
- It is essential that the findings be presented clearly, structured, and written in the past tense. The presentation should be concise, precise, and avoid redundancies, allowing the reader to understand the conclusions reached, their significance, and their connection to the stated objectives.
- The experiments, tests, or interventions performed should be described in a general manner, without repeating the procedures already explained in the methodology. In some cases, the results may contradict the initial hypotheses; these findings should be included, as they also enrich the understanding of the phenomenon studied.
- Likewise, the most relevant information should be prioritized, highlighting those results that demonstrate the impact of the study. The tables, graphs, and figures used must be accompanied by clear explanations that guide their reading, avoiding repetition of the same data or concepts already represented visually in the text.
- In short, the proper organization of the results, prioritizing significant data and maintaining consistency between the presentation and the research, is essential to ensure the clarity, validity, and scientific usefulness of the article.

Discussion: In scientific writing, the discussion section is the space for the critical interpretation of the results, in conjunction with the stated objectives and previously established scientific knowledge. According to Duque and Bohórquez (2020) and Martínez (2010), this phase allows the findings to be contextualized within the existing theoretical and empirical framework, clarifying their relevance, scope, and potential implications.

Unlike the results chapter, which focuses on objectively presenting the data obtained, the discussion delves into the meaning of these findings, comparing them with previous studies and pointing out similarities, discrepancies, or novel contributions. This is where the researcher must argue to what extent the results answer the research question, how they relate to the hypotheses (if any), and what new knowledge they contribute to the disciplinary field (Martínez, 2010).

The discussion also allows for explaining observed phenomena, establishing theoretical inferences, and highlighting possible methodological limitations that may have influenced the results. It also offers the opportunity to project future lines of research based on the gaps identified or new questions that arise during the analysis.

A well-structured discussion not only enriches the understanding of the study but also positions the article within the academic debate, showing how its contributions expand, complement, or challenge current scientific knowledge. In this sense, it becomes a bridge between empirical evidence and the construction of useful and relevant knowledge for the academic and social communities.

Recommendations for writing the discussion section: Various experts in methodology and scientific writing, including Martínez (2010), Mari Mut (2013), Castro-Rodríguez et al. (2018), Mertler (2020), Duque and Bohórquez (2020), Rojas (2017, 2021), Arnau and Sala (2023), and Pelegín and Guevara (2023), agree on a series of key recommendations for the rigorous and coherent drafting of the discussion section in scientific articles. These suggestions, based on research and editorial experience, can be organized as follows:

- The discussion section, conceived as argumentative and explanatory, requires clear and coherent writing that articulates the findings with the existing theoretical framework and the objectives of the study. Experts in scientific writing recommend that each statement be duly supported by the results obtained, avoiding unfounded speculation.
- It is essential to highlight the most relevant findings of the analysis, emphasizing those that constitute novel contributions to knowledge. These results should be described precisely, without repeating figures or texts previously presented in the results section. In some cases, research includes the results and discussion sections when the analysis of the findings requires immediate and detailed interpretation.
- The interpretation of the data should be carried out in dialogue with previous studies, establishing comparisons that allow for the identification of similarities, contradictions, or advances. Likewise, the methods employed are expected to be compared with those of other similar research studies, assessing the techniques used and the effects they may have had on the results.
- The conclusions derived from the discussion should be expressed clearly and substantiated, as they represent the synthesis of the research contribution. It is also pertinent to include a critical reflection on the limitations and strengths of the study, as well as its practical, social, or theoretical implications.
- Finally, this section should project possibilities for future research, offering recommendations for changes in models, procedures, or practices, and even suggesting new questions that allow us to continue addressing the problem from other methodological perspectives. The discussion, therefore, not only interprets the findings but also broadens the horizon of knowledge and suggests paths for further exploration.

Conclusions: The conclusions of a scientific article must be drawn so that they accurately address the research problem and the question posed. These are constructed from the analysis and interpretation of the results, in accordance with the objectives set forth in the study.

Beyond a simple reiteration of the findings, the conclusions must represent a step forward in the understanding of the phenomenon under investigation, supported by the facts verified during the research process. They should also highlight the achievements and the potential impact of the proposed objectives, in addition to indicating, where appropriate, new applications, lines of future research, or significant contributions to the field of study addressed (Duque and Bohórquez, 2020).

In mixed research, it is essential to appropriately select data collection tools, as they impact the quality and depth of the integrated analysis of qualitative and quantitative data (Martínez, 2010).

Recommendations for writing conclusions in a scientific article: Several authors, such as Martínez (2010), Mari Mut (2013), Castro-Rodríguez et al. (2018), Mertler (2020), Duque and Bohórquez (2020), Rojas (2017, 2021), Arnau and Sala (2023), and Pelegín and Guevara (2023), have proposed key guidelines for drawing rigorous scientific conclusions:

- Data already presented in the results section or those analyzed in the discussion should not be repeated.
- Conclusions should be written concisely, with rigorous deductions and clarity regarding the new contributions generated by the study.
- It is essential to prioritize the most relevant findings and those directly related to the main objective of the research.
- Under the logic of the scientific method, conclusions confirm or refute the proposed hypothesis, as well as highlight the methods used, comparing them with those used in previous research.
- The writing should focus on highlighting the most significant findings, coherently integrating the most relevant aspects of the results and the discussion.
- Novel contributions should be presented clearly, precisely, and preferably numbered, following a logical sequence, especially when quantitative evidence supports them.
- It is incorrect to reproduce the content of the summary or results in this section; any unnecessary repetition should be avoided.

- The conclusions should make clear how the research questions were answered and whether the proposed objectives were achieved or not.
- In research with a quantitative approach, the conclusions must be consistent with the data obtained, ensuring the validity of the final arguments.

Bibliography: To develop rigorous research, it is essential to gather information from diverse sources that contribute to the quality of the study. These sources must be varied in nature and type, and their provenance must be properly and accurately recorded.

Correct citation of these sources is not only an ethical practice but also a fundamental requirement for new ideas to be legitimately integrated into the body of scientific knowledge. This practice reflects respect and understanding for the researchers whose contributions have been fundamental to the development of the study and helps future generations understand current knowledge and the origin of its foundations (Martínez 2010).

Properly citing the sources used to construct new knowledge fulfills multiple essential functions within the research process. First, it allows for the recognition of the work of other authors and respects intellectual property rights. Furthermore, it demonstrates that the researcher has mastered their disciplinary field and has consulted relevant and up-to-date literature (APA, 2019).

Correct citation also makes it easier for interested readers to locate the referenced sources, thus broadening their understanding of the topic discussed. Prioritizing academic sources strengthens the quality and rigor of the research process.

Likewise, citation allows for the identification of the original sources of concepts, methods, and techniques derived from previous studies, experiences, and research. Likewise, it provides theoretical support for the arguments, facts, and opinions expressed by the author and guides those who wish to delve deeper into specific aspects of the document's content. Proper citation helps avoid unnecessary duplication of research, allowing other authors to explore aspects not yet addressed, based on what has already been documented.

4. Discussion

The findings of our study aimed to understand the implications of implementing a mixed program of metacognitive reading instruction and Lifelong Learning on the reading comprehension skills of students in Physical Education, Recreation, and Sport at UCEVA. Our research followed an Explanatory Sequential Design, with a quantitative phase involving pre- and post-tests, followed by a qualitative phase with field diaries and a focus group, the results are presented as follows.

This article offers detailed guidance on the correct writing of a scientific article as a way of reporting the results of research. Using a structured approach, it addresses the fundamental stages of the writing process, from formulating the title to presenting the bibliography, allowing the author to understand and apply the standards necessary for the approval and publication of the manuscript.

One of the most significant contributions of the text is its emphasis on the importance of clarity and coherence in language, without sacrificing scientific rigor. This proposal seeks to facilitate the communication of the knowledge generated, making the content accessible to both specialists and interested readers within the disciplinary field. In this sense, it highlights the need to use understandable, precise, and unambiguous language, which allows for fluent reading and the appropriation of the content by the academic community.

Furthermore, the article underscores the importance of presenting the results in a clear and orderly manner, using strategies that facilitate their understanding and analysis. The way findings are structured and written directly influences the reception and impact of the work, which is why it is considered a key aspect in the scientific dissemination process.

5. Conclusions

It is concluded that scientific writing is an essential component of the research process, as it allows for the effective communication of the results obtained and ensures their dissemination within the academic community. The reviewed article provides clear and useful guidance on how to prepare a scientific article that meets formal quality criteria, from the formulation of the title to the bibliographic reference.

Likewise, the importance of using understandable, precise, and scientific language is highlighted, allowing for the unambiguous transmission of knowledge. An appropriate presentation of the results not only facilitates their understanding but also strengthens the validity and impact of the study.

Finally, it is reaffirmed that writing with clarity, order, and rigor is not only a technical matter, but an ethical commitment to knowledge and to those who access it. Scientific writing, when well executed, transforms research into a true contribution to the development of knowledge.

References

[1] American Psychological Association. (2019). Publication manual of the American Psychological Association (7th ed.). Washington, DC: American Psychological Association

[2] Arnau Sabatés, L., & Sala Roca, J**.** (2023). *La construcción de un redactado científico: normas de estilo, pasos a seguir y checklist de autocorrección*. Universitat Autònoma de Barcelona.

[3] Castro-Rodríguez, Y., Mattos-Vela, M. A., & Aliaga-Del Castillo, A. (2018). Consideraciones en redacción científica: la introducción y los métodos. *Odontología Sanmarquina*, *21*(2), 147–152. https://doi.org/10.15381/os.v21i2.14781

[4] Duque Cleves, M. G., & Díaz Bohórquez, A. C. (2020). *Cartilla de redacción científica*. Servicio Nacional de Aprendizaje (SENA).

[5] Martínez, H. E., Pumarejo H. M., Montero M, J., & Monter, E. (2024). State of the art design: Reflections, meaning, objective, structure and example. Russian Law Journal, Vol. 12(1). https://doi.org/10.52783/rlj.v12i1.3931

[6] Martínez, H. E. El proceso de investigación científica en la universidad. Valledupar: Fundación Élite; 2010.

[7] Mari Mut, J. A. (2013). *Manual de redacción científica*. Ediciones Digitales. https://archive.org/details/manual_201804/page/1/mode/2up?view=theater

[8] McKerrow, R. B. (2005). ¿Qué es la redacción científica? En *Cómo escribir y publicar trabajos científicos*. Organización Panamericana de la Salud.

[9] Mertler, C. A. (2020). Introduction to Educational Research (3rd ed.). SAGE Publications, Inc. (US).

[10] Ñaupas, H., Valdivia, M., Palacios, J., & Romero, H. (2018). Metodología de la investigación cuantitativa, cualitativa y redacción de la tesis. (5ta Ed.). Ediciones de la U. https://edicionesdelau.com/wp-content/uploads/2018/09/AnexosMetodologia_%C3%91aupas_5aEd.pdf

[11] Olarte Velasquez, M. A. (2024). Nivel de redacción científica y aprendizaje cooperativo en estudiantes dela Escuela de Estudios de Formación General, Escuela Profesional de Tecnología MédicadelaUAC, 2021 II. http://repositorio.uandina.edu.pe/handle/20.500.12557/6483

[12] Padrón Novales, C. I., Quesada Padrón, N., Pérez Murguía, A., González Rivero, P. L., & Martínez Hondares, L. E. (2014). Important aspects of scientific writing. *Revista Ciencias Médicas*, *18*(2), 362–380.

[13] Pelegín Ramírez, J., & Guevara Fletcher, C. E. (2023). El artículo científico: cómo se estructura y cuál es su importancia para la formación en investigación. En Experiencias didácticas vinculadas a la escritura a través del currículo en educación. Fundación Universitaria Católica Lumen Gentium – UNICATÓLICA.

[14] Pérez Insuasti, J. J., Sarmiento, F. B. P., & Sarmiento, J. E. P. (2024). Fundamentos De La EscrituraTécnicaY Académica. Juan José Pérez Insuasti ED. Riobamba, Ecuador. 139P.

[15] Ramírez, A. A., Orellana, L. M., Tapia, R. C., Teves, R. V., & Tisoc, J. H. (2023). Métodos de investigacióncientífica. https://doi.org/10.35622/inudi.b.094

[16] Rojas Cairampoma, M. (2017). Gestión de la redacción científica *(*pp. 1–95). Lima, Perú.

[17] Rojas Cairampoma, M. (2021). Gestión holística de la redacción científica (8.ª ed. electrónica). Lima, Perú.

[18] Romero Palmera J. A. La clave de la comunicación científica: Precisión, Claridad y Brevedad. Revista Multidisciplinaria del Saber. Vol. 2 (2024), DOI: https://doi.org/10.61286/e-rms.v2i.107

[19] Salcedo, J., Martínez, H., Urriago, J. y Romero, A. (2022). The theoretical framework in research: meaning, functions, structure and example for its design. Russian Law Journal, 10, 877-884. https://doi.org/10.52783/rlj.v10i4.4450

[20] Texidor Pellón, R., Reyes Miranda, D., & Camejo Esquijarosa, D. (2020). Sugerencias para mejorar el estilo de redacción de un artículo científico en las ciencias de la salud. *Educación Médica Superior*. Recuperado de http://www.ems.sld.cu/index.php/ems/article/view/12

[21] Unesco-Programa General de Información y Unisist. (1983). Guía para la redacción de artículos científicos destinados a la publicación.

[22] Venegas Velásquez, R. A. (2005). *Las relaciones léxico-semánticas en artículos de investigación científica: Una aproximación desde el análisis semántico latente* [Tesis doctoral, Pontificia Universidad Católica de Valparaíso]. Pontificia Universidad Católica de Valparaíso. http://cybertesis.ucv.cl/tesis/production/pucv/2005/venegas_re/html/index-frames.html