رقميات

RAQMYAT

Stratégies Numériques pour la Formation Doctorale en Sciences Humaines et Sociales en Tunisie

Block 5:

Scientific Writing Techniques

UNIVERSIDAD DE GRANADA

Block 5, focusing on "Scientific Writing Techniques," equips students with the essential skills needed to effectively communicate complex scientific ideas through writing. This module delves into the intricacies of crafting clear, concise, and impactful scientific documents, covering key aspects such as the IMRAD structure, the importance of choosing appropriate titles, abstracts, and keywords for visibility, and the judicious use of figures and tables to complement textual information. Students learn to navigate the nuances of authorship, avoiding common disputes, and ensuring their work is original, novel, and unpublished. The module prepares students to produce publishable research articles, enhancing their ability to contribute significantly to the scientific community.

Characteristics:

- Structure of academic texts
- Fundamentals of Academic Writing
- Effective Communication of Complex Ideas

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PART I. Before you start writing

The Purpose of Academic Publishing

Academic publishing is the final, crucial step in the research journey. It is where studies and discoveries are shared with the world, making it an essential part of academic work. Without publishing, research remains unseen and untested, floating in academic limbo. It is the process of making findings public and subjecting them to peer review that truly completes the research cycle.

Publications act as the academic seal of approval. They allow other researchers to scrutinize, challenge, and build upon findings, ensuring that only robust, reliable research gains recognition. This peer review process is what keeps the scientific method honest and progressive. Through publishing, new discoveries are introduced to the academic community and beyond, fostering innovation and inviting further exploration. They signal that a piece of work has passed rigorous evaluation and contributes valuable knowledge to its field. This not only helps in advancing the discipline but also in cementing the researcher's contribution to the ever-expanding body of global knowledge.

We can summarize the role played by publications in the following:

- **Validation of Research.** They ensure that research findings have undergone rigorous peer review, affirming their reliability and accuracy.
- **Dissemination of Knowledge.** Publications spread new discoveries and insights across the global academic community, facilitating access to the latest research.
- **Foundation for Further Research.** They serve as a critical resource for other researchers to build upon, sparking innovation and further exploration in various fields.
- **Academic Recognition.** Publishing in respected journals provides researchers with recognition, enhancing their reputation and contributing to their career advancement.
- **Educational Resource.** Publications are a vital resource for teaching, offering up-to-date information and examples to inform and inspire students.
- **Benchmarking Current Research.** They help in mapping the current state of research in various disciplines, identifying trends, gaps, and areas ripe for exploration.

These roles underscore the integral position of academic publishing within the research ecosystem, facilitating the growth of knowledge and fostering an environment of continuous scholarly dialogue and development.

The Scientific Communication System

The journey of scientific communication has been a long and transformative one, evolving significantly from its nascent stages to the complex and dynamic system we observe today. This evolution has been marked by key developments, each shaping the way knowledge is shared and built upon within the academic community. Initially, the dissemination of scientific knowledge was predominantly through books. These were often comprehensive treatises on

particular subjects, written by individual scholars or philosophers and responded to a lifetime's work.

The birth of scientific journals marks a pivotal moment in the evolution of academic communication, transitioning from the solitary pursuit of knowledge documented in books and personal letters between scholars, to a more communal and systematic dissemination of research. Prior to the mid-17th century, scholarly communication was largely informal, rooted in the exchange of letters and the publication of comprehensive books that often reached a limited audience due to their sheer volume and cost. This era was characterized by a fragmented scientific community where insights and discoveries remained circumscribed within narrow scholarly circles, impeding the widespread advancement of knowledge.

The establishment of the Journal des Sçavans in France and the Philosophical Transactions of the Royal Society in England in 1665 revolutionized this landscape by formalizing the sharing of scientific knowledge. These journals served as platforms for the timely dissemination of research findings, leveraging the printing press to reach an audience far beyond the immediate geographic and social confines of their authors. The creation of these journals responded to a growing demand for a more efficient and accessible means of communication among scholars, enabling the rapid spread of new ideas and fostering a collaborative scientific environment that transcended national borders. Through the regular publication of research findings, scientific journals facilitated a level of scrutiny and peer engagement previously unattainable, laying the groundwork for the modern academic publishing system .

As scientific journals gained prominence, the structure of academic papers began to evolve towards the now-standard IMRAD format (📚 *see Part II for more on IMRAD*), a shift that mirrored the journals' emphasis on clarity, replicability, and rigorous scientific method. This evolution underscored the journals' role in not just publicizing research, but in establishing a framework for the presentation and evaluation of scientific work. The introduction of the peer review system further solidified the credibility and reliability of published research, ensuring that only work meeting a certain standard of quality and originality reached the public domain. This critical appraisal by fellow experts became a cornerstone of academic integrity and a key differentiator of scholarly journals from other forms of publication.

The formal adoption of the peer review process as a systematic mechanism for evaluating scientific work before publication began to take shape in the mid-20th century. While the concept of peer review can be traced back to the editorial practices of early scientific journals in the 17th century, it wasn't until the 20th century that peer review became an established and essential component of the academic publishing process. Specifically, the peer review system as we know it today, involving anonymous reviewers providing critical feedback on manuscripts prior to publication, gained prominence in the years following World War II. This period saw a significant increase in scientific research activity and the subsequent need for rigorous quality control mechanisms in publishing.

The advent of Open Access in the late 20th and early 21st centuries marked another significant shift, challenging the traditional subscription-based model by advocating for free, unrestricted access to research findings. While Open Access has democratized the availability of scientific knowledge, it has also introduced new challenges, particularly regarding the sustainability of publishing models and the mechanisms for ensuring the quality of openly available research. Despite these challenges, the foundational role of scientific journals in facilitating the verification, publicization, and ratification of new discoveries remains unchanged, continuing to shape the landscape of academic and scientific inquiry .

The Open Access movement began gaining significant momentum in the late 20th and early 21st centuries. One of the key moments in the formalization and spread of the Open Access movement was the Budapest Open Access Initiative (BOAI), which was launched in 2002. This initiative provided a clear definition of Open Access and outlined strategies for its implementation, marking a pivotal moment in the movement towards freely accessible scholarly communication.

⏳ YEAR	📌 MAIN MILESTONES
1665	Publication of the first scientific journals: Journal des Sçavans in France and Philosophical Transactions of the Royal Society in England.
1843	Establishment of the Chemical Society of London, introducing the model of a scientific society publishing its own journal.
Late 17th to Early 20th Century	Gradual evolution towards the IMRAD structure in academic papers.
1950s and 1960s	Development of citation indexing and the Science Citation Index by Eugene Garfield, introducing a systematic way to evaluate the impact of scientific publications.
1991	Launch of the arXiv preprint server, facilitating early access to research findings in physics and later other fields.
1990s	Transition of print journals to online platforms, marking the beginning of the digital age for academic publishing.
Mid-20th Century	Formal establishment and widespread adoption of the peer review system as a standard practice in academic publishing.
2002	Launch of the Budapest Open Access Initiative (BOAI), formalizing the principles of Open Access and promoting the free availability and unrestricted use of research.

Types of Scientific Publications

Scientific publications come in various forms, each designed to fulfill specific scholarly needs and contribute uniquely to the research ecosystem. Among the most common types of academic publications are case studies, empirical studies, literature reviews, theoretical studies, and systematic reviews. Each type plays a crucial role in academic research, offering different perspectives, methodologies, and insights that enrich the academic discourse. While we will be mainly focusing on empirical studies (also known as research

articles), here we give a brief overview of the most common types and provide some examples.

Case Studies

🤔**Definition:** Case studies are in-depth investigations of a single person, group, event, or community over a period of time. They are used to explore complex issues in real-life contexts, where multiple sources of evidence are used to illuminate dimensions of the subject being studied.

🦠**Main Characteristics:**

- Focus on an individual case rather than a population or sample.
- Offer detailed contextual analysis of a limited number of events or conditions and their relationships.
- Employ a variety of data sources, such as documents, artifacts, interviews, and observations.
- Often exploratory, descriptive, or explanatory in nature.
- Useful in generating hypotheses and building theory.

📜 **Examples:**

- *Corley, E. A., Boardman, P. C., & Bozeman, B. (2006). Design and the management of multi-institutional research collaborations: Theoretical implications from two case studies. Research policy, 35(7), 975-993.*
- *Robinson-Garcia, N., Costas, R., Nane, G. F., & van Leeuwen, T. N. (2023). Valuation regimes in academia: Researchers' attitudes towards their diversity of activities and academic performance. Research Evaluation, 32(2), 496-514.*

Review Articles

🤔**Definition:** Literature reviews survey scholarly articles, books, and other sources relevant to a particular issue, area of research, or theory, providing a critical evaluation of these works in relation to the research problem being investigated.

🦠**Main Characteristics:**

- Summarize and synthesize the existing literature on a topic.
- Identify gaps or inconsistencies in a body of knowledge.
- Establish the context and significance of a research problem.
- Do not involve original empirical research but rely on existing works.
- Serve as a foundation for new research by highlighting areas for further investigation.

📜 **Examples:**

- *Alonso, S., Cabrerizo, F. J., Herrera-Viedma, E., & Herrera, F. (2009). h-Index: A review focused in its variants, computation and standardization for different scientific fields. Journal of informetrics, 3(4), 273-289.*
- *Northey, J. M., Cherbuin, N., Pumpa, K. L., Smee, D. J., & Rattray, B. (2018). Exercise interventions for cognitive function in adults older than 50: a systematic review with meta-analysis. British journal of sports medicine, 52(3), 154-160.*

- *Thomas, D. A., Nedeva, M., Tirado, M. M., & Jacob, M. (2020). Changing research on research evaluation: A critical literature review to revisit the agenda. Research Evaluation, 29(3), 275-288.*

Theoretical Studies

🤔**Definition:** Theoretical studies focus on developing, exploring, or testing the theories that contribute to a deeper understanding of the world. These studies are not based on direct empirical evidence but use existing research and logical reasoning to build conceptual frameworks.

🦠**Main Characteristics:**

- Concerned with establishing and exploring theories.
- Use deductive reasoning to apply theoretical propositions to specific instances.
- May involve the formulation of models or hypotheses that can be tested empirically by others.
- Aim to expand or refine theoretical constructs.
- Contribute to the conceptual underpinnings of research fields.

📜 **Examples:**

- *Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university–industry–government relations. Research policy, 29(2), 109-123.*
- *Alchian, A. A. (1950). Uncertainty, evolution, and economic theory. Journal of political economy, 58(3), 211-221.*
- *Gardner, H., & Hatch, T. (1989). Educational implications of the theory of multiple intelligences. Educational researcher, 18(8), 4-10.*

Empirical Studies

🤔**Definition:** Empirical studies involve the collection and analysis of data through direct observation or experimentation to test hypotheses or answer research questions. **These studies are fundamental to generating new knowledge based on empirical evidence**.

🦠**Main Characteristics:**

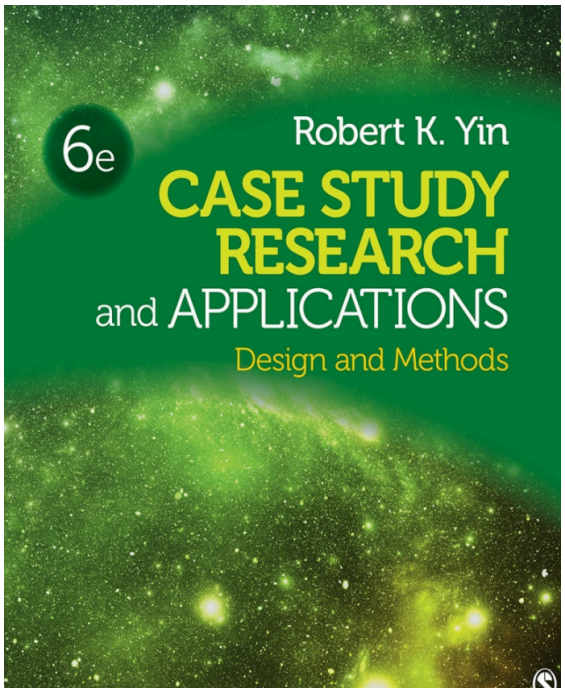
- Rely on systematic collection and analysis of data.
- Can be qualitative, quantitative, or mixed-methods in approach.
- Aim to test a hypothesis or explore a phenomenon through direct or indirect observation and measurement.
- Results are often statistically analyzed to infer patterns or outcomes.
- Empirical evidence is central to the study's conclusions.

📜 **Examples:**

- *Way, S. F., Morgan, A. C., Larremore, D. B., & Clauset, A. (2019). Productivity, prominence, and the effects of academic environment. Proceedings of the National Academy of Sciences, 116(22), 10729-10733.*
- *Eysenbach, G. (2011). Can tweets predict citations? Metrics of social impact based on Twitter and correlation with traditional metrics of scientific impact. Journal of medical Internet research, 13(4), e2012.*

- *Torres-Salinas, D., Rodríguez-Sánchez, R., Robinson-García, N., Fdez-Valdivia, J., & García, J. A. (2013). Mapping citation patterns of book chapters in the Book Citation Index. Journal of informetrics, 7(2), 412-424.*

Extra reading



1) "Case Study Research and Applications: Design and Methods" by Robert K. Yin is a comprehensive guide to the intricacies of case study research.

2) The book lays out the foundation, emphasizing the need for well-formulated research questions and propositions.
3) It details various case study designs, including single-case and multiple-case studies, highlighting their unique applications and challenges.

4) Yin discusses data collection techniques, ranging from interviews to archival records, ensuring thorough and valid research.

5) The importance of maintaining validity and reliability through methodical design and analysis is underscored.

6) The book includes practical examples, showcasing the versatility of case studies across different disciplines.

7) Yin provides readers with the tools necessary for designing, conducting, and reporting case study research, making it an essential resource for researchers and scholars.

PART II. Writing the Paper

General Notes on Style and Structure

Successful scientific writing is based on the power to present complex ideas with clarity and precision. It is an art that marries meticulous research with the elegance of clear expression, aiming not just to inform, but to engage and persuade. Effective scientific writing transcends the mere presentation of facts and figures; it tells a story, weaving a narrative that guides readers through a journey of discovery. It demands a balance between detail and brevity, ensuring that each word serves a purpose. In crafting such pieces, writers not only contribute to the vast tapestry of scientific knowledge but also inspire future inquiries, fostering a culture of continuous exploration and learning.

As all arts, mastering scientific writing requires discipline and training. In the following pages we will share some techniques and strategies we have developed along years of experience in academic writing that we hope may help you. But remember that only by constant trial and error you will be able to develop your own academic writing style.

In the words of Stephen King:

> *“If you want to be a writer, you must do two things above all others: read a lot and write a lot. There's no way around these two things that I'm aware of, no shortcut.”*
>
> **— Stephen King,** 🛜 **On Writing: A Memoir of the Craft** 

Scientific writing is characterized by its rigor, but also its cleanness. Similar to journalistic writing, the focus must always be on the story. Look at these three sentences:

a) My beloved parent has joined the heavenly choir
b) My dear father has passed away
c) My father has died
d) My old man has kicked the bucket

While they all refer to the same phenomenon, you can clearly see how style defines the readability and interpretation of the sentence. Of course, an appropriate scientific style would encourage option cover the others due to its concision and distance from the fact reported.

SIX ELEMENTARY RULES ON WRITING

1) **Never use a metaphor, simile or other figure of speech which you are used to seeing in print**

2) **Never use a long word where a short word will do**

3) **It it is possible to cut out a word, always cut it out**

4) **Never use the passive where you can use the active**

5) **Never use a foreign phrase, a scientific word or a jargon word if you can think of an everyday English equivalent**

6) **Break any of these rules sooner than say anything outright barbarous**

— George Orwell, 🛜 **Politics and the English Language** 

Now some practical tips:

1. Start your papers straight to the point and as clear and precise as possible

2. Avoid passive Better first person in plural or even, in singular

3. The research article is cyclic **INTRO** - presents a problem to be solved **DATA AND METHODS** - Proposes a way to solve it. **FINDINGS** - Reports what happened once the proposed solution was applied. **DISCUSSION** - Assess if the findings were satisfactory. **CONCLUSIONS** - Ends up with the response to the problem solved and suggests further lines of enquiry

4. Structure your paper The best way to start a paper is by creating a detailed structure of the paper. Do not only indicate the sections, but even their length, number of paragraphs, contents for each paragraph and potential figures and tables.

5. Take time designing figures and tables Use them with wisdom and dedicate time editing them.

6. Search for inspiration When you read other people's works, do not only look into their contents, but also pay attention to their presentation and style.

7. Tell a story Specially when editing your text, think on which are the main messages readers should keep after reading your paper.

8. Simplify Make use of simple English and cut out as many unnecessary words as possible.

9. Listen to Stephen King King describes himself as a working-class writer. He does not pursue literary greatness, but readers' engagement. Learn from him ➡️ **RESILIENCE** - **SPORTMANSHIP** - **SELF-CRITICISM** - **AMBITION**

10. Edit, edit and edit Write for yourself, but revise and edit thinking on the reader: Restructure, simply, eliminate unnecessary words….

The IMRAD Structure

The IMRAD structure, an acronym for Introduction, Methods, Results, and Discussion, stands as the foundational architecture of scientific writing, offering a clear, logical framework that mirrors the scientific method itself. This structure facilitates a seamless narrative flow, guiding readers from the conceptual genesis of the research question through to the nuanced interpretation of results.

In the **Introduction**, the writer sets the stage, articulating the research problem, its significance within the broader scientific landscape, and the specific objectives or hypotheses of the study. This section answers the "why" of the research, engaging readers with the study's rationale and its potential contributions to knowledge.

The **Methods** section delves into the "how" of the study, providing a detailed account of the experimental design, procedures, and analytical techniques employed. Clarity and precision here allow the research to be reproducible, a core tenet of scientific inquiry. This part not only serves to validate the study's findings but also enables other researchers to replicate or build upon the work.

In the **Results** segment, the researcher presents the outcomes of the study, typically through an objective exposition of data, supported by tables, figures, and statistical analysis. This section is the factual core of the manuscript, where the data speak, untainted by interpretation.

The **Discussion** weaves together the threads of the research narrative, interpreting the results in the context of the original hypothesis and the wider field. It's where the implications of the findings are explored, limitations are acknowledged, and potential directions for future research are suggested. This section bridges the specific study with the broader scientific dialogue, highlighting its relevance and potential impact.

Adhering to the IMRAD format not only enhances the clarity and coherence of scientific manuscripts but also aligns with the expectations of the scientific community, facilitating peer review, publication, and dissemination of research findings. This structured approach democratizes scientific knowledge, making it accessible and actionable to a global audience of researchers, practitioners, and policymakers, thereby advancing the frontiers of science and its application in society.

SECTION	WRITING STYLE
Introduction + Lit. Review	Past or present perfect
Methods + Results	Past or present
Results + Discussion	Present or present perfect

Figures and Tables

In research articles, figures and tables play a crucial role in summarizing and presenting data clearly and efficiently. Figures should be used to depict complex patterns, trends, and relationships visually, making them immediately apparent to the reader. Tables are best suited for presenting raw data and facilitating direct comparisons between datasets. Both should be self-explanatory, with concise, descriptive titles and legends that provide sufficient context for understanding without referring back to the main text. They must be referenced within the text, directing readers to view them at relevant points in the discussion.

Furthermore, the information provided in these figures and table should be easily interpretable without context and should not reiterate previous content.

Feature	Figures	Tables
Purpose	Visualize data trends, patterns	Present raw data, facilitate comparison
Design	Clean, uncluttered, color use for clarity	Organized, labeled columns/rows
Context	Include legends, sufficient for standalone understanding	Include descriptive titles, footnotes for clarification
Reference	Clearly referenced in the text	Clearly referenced in the text

Creating figures for scientific papers requires tools that can handle complex data and present it in a visually accessible manner. Below is a table listing ten software options useful for this purpose, including both free and paid versions. These tools cater to a range of needs, from simple diagrams to detailed scientific illustrations and complex data visualizations.

SOFTWARE	LINK	PRICING
BioRender	BioRender.com	Paid (Free Trial)
Inkscape	inkscape.org	Free
Adobe Illustrator	adobe.com/products/illustrator	Paid

GIMP	gimp.org	Free
Tableau Public	public.tableau.com	Free
GraphPad Prism	graphpad.com	Paid
Microsoft PowerPoint	microsoft.com	Paid
OriginLab	originlab.com	Paid
PyMOL	pymol.org	Paid (Free for Educational Use)
RStudio	rstudio.com	Free

Each software offers unique features tailored for scientific research, ranging from vector drawing capabilities and photo editing to statistical analysis and interactive visualization. When selecting a tool, consider the specific needs of your research and publication, such as discipline-specific standards, the complexity of the data, and your own familiarity with the software.

EPILOGUE

Publishable and Non-Publishable Topics

For a research topic to be considered publishable, it must embody three cardinal characteristics: originality, novelty, and being previously unpublished. These criteria ensure that the research contributes meaningfully to the existing body of knowledge, offering insights or discoveries that advance understanding within a field.

Originality refers to the requirement that the work presents a unique perspective, approach, or findings. It doesn't necessarily have to cover a completely unexplored topic; instead, it can offer a new angle on existing research, challenge established theories, or present new evidence that prompts a reevaluation of current understandings. Original research fills gaps in the literature, addresses unanswered questions, or employs innovative methodologies to explore well-trodden paths, thus contributing valuable new insights to the academic discourse.

Novelty demands that the research introduces ideas, data, or techniques that are not just original but also significantly advance the field. Novel research shifts paradigms, opens new lines of inquiry, or presents unexpected connections between previously disparate areas. For a topic to be novel, it must go beyond merely adding to existing knowledge; it must transform understanding in a way that could lead to new applications, theories, or methodologies.

Novelty captures the essence of scientific progress—pushing the boundaries of what is known and exploring the unknown territories of human knowledge.

Unpublished status is critical because the scientific community values the primacy and exclusiveness of research findings. For research to be considered for publication, it must not have been previously published in any peer-reviewed journal or public platform that offers copyright protection. This criterion ensures that the academic record remains clear and accurate, preventing the dilution of scientific contributions through redundancy. It also upholds the integrity of the scientific process, ensuring that each published work adds new knowledge to the scholarly repository without duplicating content.

Together, these three characteristics form the bedrock of publishable research. They ensure that academic publications maintain their role as vehicles of innovation and discovery, driving forward the frontiers of science and scholarship.

Authorship and collaboration

Authorship in scientific publishing denotes the attribution of contribution to individuals who have played a significant intellectual role in the conception, design, execution, or interpretation of a research project. The assignment of authorship is pivotal in recognizing the contributions of researchers and is often used as a metric for academic achievements. However, the determination of authorship can become a contentious issue, leading to disputes and conflicts within research teams. Disagreements may arise over the order of authors, the inclusion or exclusion of contributors, and the perceived magnitude of each individual's contributions.

🤼RECOMMENDATIONS TO AVOID CONFLICT AND AUTHORSHIP DISPUTES

1. **Agree from the start on how the workload and authorship will be distributed.** Clear delineations of responsibilities and expectations can prevent misunderstandings later on.
2. **Try to avoid including too many authors.** Limit authorship to those who have made significant contributions to ensure clarity and fairness.
3. **Be honest with yourself.** Reflect on your own contributions realistically to avoid overestimating your role.
4. **Be rigorous but flexible when collaborating between teams.** Acknowledge the dynamic nature of research projects and be willing to adjust agreements as the project evolves.
5. **If it's the first collaboration, observe customary signing practices.** Understanding established norms can guide expectations and practices.

6. **Discuss matters directly, even if it is uncomfortable.** Open communication about contributions and expectations can resolve many potential conflicts before they escalate.

7. **Stay calm and avoid toxic environments.** A constructive and respectful dialogue is more likely to result in amicable resolutions.

8. **Document your work to have a record of contributions.** Keeping detailed records can provide clear evidence of contributions if disputes arise.

9. **Avoid the inclusion of ghost authors as much as possible.** Ensure that everyone listed as an author has made a substantial contribution.

10. **Be grateful to those who contributed but are not authors.** Acknowledge non-author contributors in the acknowledgments section to recognize their efforts.

Following the recommendations above can help maintain harmonious relationships within research teams, ensuring that the process of scientific publishing is both fair and transparent, thus preserving the integrity of the scholarly record.

Preparing a Manuscript for Submission

Preparing a manuscript for submission to a scientific journal is a crucial step in the publication process, requiring meticulous attention to several key components: the title, abstract, and keywords. These elements are pivotal in ensuring that your work is discoverable, engaging, and accessible to the intended audience. Here's how to approach each of these components effectively:

Title, Abstract, and Keywords

Title: It should be concise and to the point, yet engaging enough to capture the reader's attention. Think of it as the first impression your paper makes, akin to ethical clickbait. Titles can be:

- **Informative**: Direct and descriptive, e.g., "Map of synthetic rescue interactions for the Fanconi anemia DNA repair pathway identifies USP48."
- **Explanatory**: Offers insight into the content or methodology, e.g., "Planning a title: Practices and preferences for titles with colons in academic articles."
- **Engaging**: Designed to pique curiosity, e.g., "The unbearable emptiness of tweeting – About journal articles."
- **Intriguing**: Provokes thought or questions, e.g., "What is an emerging technology?"

Abstract: This brief summary is often the most widely read part of your paper and should accurately reflect its structure and content. Invest time in crafting an abstract that is both informative and reflective of your study's significance.

Keywords: Choose terms that are essential for making your paper retrievable by potential readers. Conduct searches on platforms like Google Scholar to identify relevant terms that should be included in your work.

Tips:

- Performing keyword searches can help ensure your manuscript is easily discoverable.
- Dedicate time to writing a compelling abstract, as it may be the only section some readers engage with.

Journal Formats and Templates

Understanding the target journal or academic community early in the writing process is beneficial. This knowledge can guide the tone, writing style, and format of your manuscript. Different journals might have specific formatting guidelines:

Examples of Journal Formats:

- PNAS
- Plos One
- The New England Journal of Medicine
- Research Policy

Some journals provide templates for article submission, such as Latex (via **Overleaf**) or Rmarkdown (via **Rticles**), facilitating the formatting process. While not always mandatory, using these templates can streamline the preparation of your manuscript for submission.

By adhering to these guidelines and investing time in crafting each component of your manuscript carefully, you enhance the visibility, appeal, and accessibility of your research, maximizing its potential impact within the scientific community.

Additional Resources

- Check out this COVER LETTER and use it as a template for your own submissions if needed
- Here you have an example of response to reviewers which can also be used if needed. Look how each question posed is responded in detail. It includes a general response to the editor and then specific responses to each of the comments made by the reviewers