



International Scientific Research Publication - An Introduction

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Outline

- Scientific Research Paper
- Benefits of Publishing in International Journals
- Types of Scientific Journals
- Journal Metrics
- Universal Norms of Journal Quality
- How to Write a Scientific Article?
- Best Engineering Journals
- Conclusions
- References

Outline

- **Scientific Research Paper**
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Scientific Research Paper (1/3)

Definition

- A written report
- Describing original research results
- The format has been defined by centuries of developing tradition, editorial practice, scientific ethics and the interplay with printing and publishing services

<https://www.scidev.net/global/practical-guides/how-do-i-write-a-scientific-paper/>

Scientific Research Paper (2/3)

Characteristics

- They are published in a periodical called a journal whose purpose is to publish this kind of work
- They are peer reviewed
- They follow a standardized style of writing and data presentation

<https://researchguides.library.vanderbilt.edu/c.php?g=69346&p=831584>

Scientific Research Paper (3/3)

General outline

- Title
- Author(s)
- Abstract
- Introduction
- Methods
- Results
- Discussion
- References/Literature cited

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Benefits of Publishing in International Journals (1/3)

- Publishing of an article in precise foreign language gives author the opportunity to plunge into creative environment of other countries
- There are great prospective such as career, sponsors, higher fees
- Broadens the mind of the author

<https://www.european-science.org/benefits-of-publishing-in-international-journals/>

Benefits of Publishing in International Journals (2/3)

- The level of English is the most important, it must be very high
- The published article immediately emphasizes specialization and competence of the writer, significantly increases its influence in certain circles

<https://www.european-science.org/benefits-of-publishing-in-international-journals/>

Benefits of Publishing in International Journals (3/3)

- Article published in foreign source is essential for career of purposeful scientist
- Properly selected scientific journal significantly increases the chances of article publishing

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Types of Scientific Journals (1/3)

- Specific or General

- *Specific Scientific Journals*

They are about certain very specific topics or subfields, for example, an astrophysics journal or a journal about cell biology

- *General Scientific Journals*

Deals with many subfields and subtopics under its umbrella, for example, the research journal, Nature

<https://www.imaginated.com/blog/scientific-journal/>

Types of Scientific Journals (2/3)

- How Journals are Accessed

- *Open-Access Journals*

Free for all to access, like plos.org. They have a transparent 'peer-review' process

- *Subscription-Based Journals (Predatory)*

Require a publication fee. They have less stringent review processes to get published

<https://www.imaginated.com/blog/scientific-journal/>

Types of Scientific Journals (3/3)

- How Journals are Accessed (cont.)

- *Pre-Print Journals*

Require researchers to publish their research or articles for review before they can be submitted to official journals

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Journal Metrics (1/2)

Definition

Measure, compare, and often rank research and scholarly publications

Impact Factor

- The original citation impact metric is the Journal Impact Factor, created in the 1950s
- Available through Thompson Reuters' Journal Citation Reports

<https://academicguides.waldenu.edu/library/journalmetrics>

Journal Metrics (2/2)

Other Free Journal Metrics

- CiteScore Metrics
- Eigenfactor
- Google Scholar Metrics
- SCImago Journal Rank (SJR)
- Source Normalized Impact per Paper (SNIP)
- Journal Impact Factor (JIF)
- H-index

<https://academicguides.waldenu.edu/library/journalmetrics>

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Universal Norms of Quality (1/4)

- **Journals with Impact factor:** Quality and reputation of the publisher and journal
- **Journals without Impact factor:** Scholarly reputation of the publisher, History and background of the publishing outlet
- **Books and Book Chapters:** Peer-reviewed from reputable publisher known in the field
- **Open Access/Online Journals** that meet the criteria for traditional journal are eligible

[https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines on classification of publications d2 EN.pdf](https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines%20on%20classification%20of%20publications%20d2%20EN.pdf)

Universal Norms of Quality (2/4)

- Tier 1:

- High category (3.5-4): Journal with Impact factor that falls in the top 25 percentile ranking based on the impact factor within the subject, discipline, or sub-disciplinary category
- Low Category (3.0-3.4): Journal with Impact factor that falls in the average/middle 50 percentile ranking

https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines_on_classification_of_publications_d2_EN.pdf

Universal Norms of Quality (3/4)

- Tier 2:

- High category (2.5-2.9): Journal with Impact factor that falls in the lower 25 percentile ranking
- Low category (2.0-2.4): Paper published in peer-reviewed journal without impact factor, or in peer reviewed proceedings of international conference

[https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines on classification of publications d2 EN.pdf](https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines%20on%20classification%20of%20publications%20d2%20EN.pdf)

Universal Norms of Quality (4/4)

- Tier 3:

- All non-peer-reviewed publications, or paper published in regional or national conference proceedings

[https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines on classification of publications d2 EN.pdf](https://www.qu.edu.qa/static_file/qu/colleges/cas/College%20Departments%20and%20Offices/ADRGS/Guidelines%20on%20classification%20of%20publications%20d2%20EN.pdf)

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How to Write a Scientific Article? (1/3)

- Should be useful for reader, so dedicate is to specific scientific sector
- Article is your personal vision of problem based on theoretical material
- To show the work with references at works of other researchers

<https://www.european-science.org/how-to-write-a-scientific-article/>

How to Write a Scientific Article? (2/3)

- Try to use terminology and narrowly specialized words only if it's necessary and don't forget about explanations
- Text of article should be logical, it must be structured
- Always look after the volume of article which includes alleged content.
- Look after the shape of your work, it's content, correct ratio of illustrations and its layout

<https://www.european-science.org/how-to-write-a-scientific-article/>

How to Write a Scientific Article? (3/3)

- Try to not distract from the main problem issue of your work
- Make sure that the initial judgment had a logical conclusion in the form of competent conclusions
- Choose several journals and write slightly modified texts to increase your chances to be published

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Best Engineering Journals (1/5)

Electronics and Electrical Engineering Journals

- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Wireless Communications
- IEEE Journal on Selected Areas in Communications
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Cybernetics
- IEEE Transactions on Power Electronics
- IEEE Communications Magazine
- IEEE Transactions on Communications
- IEEE Transactions on Smart Grid
- IEEE Transactions on Automatic Control

<https://research.com/journals-rankings/electronics-and-electrical-engineering>

Best Engineering Journals (2/5)

Electronics and Electrical Engineering Journals (cont.)

- IEEE Wireless Communications
- IEEE Transactions on Systems, Man, and Cybernetics: Systems
- Automatica
- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Power Systems
- IEEE Communications Surveys and Tutorials
- Proceedings of the IEEE
- IEEE Internet of Things Journal
- IEEE Transactions on Fuzzy Systems

<https://research.com/journals-rankings/electronics-and-electrical-engineering>

Best Engineering Journals (3/5)

Computer Science Journals

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Access
- IEEE Communications Magazine
- IEEE Internet of Things Journal
- IEEE Transactions on Industrial Informatics
- Future Generation Computer Systems
- Pattern Recognition
- IEEE Transactions on Neural Networks and Learning Systems

<https://research.com/journals-rankings/computer-science>

Best Engineering Journals (4/5)

Mechanical and Aerospace Engineering Journals

- International Journal of Heat and Mass Transfer
- Applied Thermal Engineering
- International Journal of Mechanical Sciences
- Energy Conversion and Management
- Composite Structures
- Journal of Fluid Mechanics
- Mechanical Systems and Signal Processing
- International Communications in Heat and Mass Transfer
- Computer Methods in Applied Mechanics and Engineering

<https://research.com/journals-rankings/mechanical-and-aerospace-engineering>

Best Engineering Journals (5/5)

Engineering and Technology Journals

- Renewable and Sustainable Energy Reviews
- Applied Energy
- Journal of Cleaner Production
- Energy Conversion and Management
- Advanced Energy Materials
- Energy
- Renewable Energy
- Nano Energy
- Energy and Environmental Sciences
- Journal of Power Sources

<https://research.com/journals-rankings/mechanical-and-aerospace-engineering>

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Conclusions

- Frequent publication is a powerful method to demonstrate academic talent to peers
- Successful publication of research brings attention to scholars and their institutions
- It may bring in more funding for the institute
- Academic institutions and university use the number of publication as the measure of competency
- Academic journals categories: international journals, typically published in English, and national and local journals, published in a language other than English.
- Publication in international journals has the negative effect of reducing the dissemination of research on topics of local and national interest

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Thank you for your Attention