How to Write a World-Class Paper

....and get it successfully published
An Introduction to Scientific Publishing

October 2015

Presented by David Sleeman
Executive Publisher
www.emeraldinsight.com
Global Published Peer Review Research from 1996

Regions

Total Documents per Year

- Africa
- Asiatic Region
- Central Africa
- Eastern Europe
- Latin America
- Middle East
- Northern America
- Pacific Region
- Western Europe
Published Peer Review Research in Spain 1996-2014 vs Europe
Peer Review Research in Spain

Citable vs. Non Citable Documents

Non-citable documents
Citable documents
Peer Review Research in Spain
Business Management Research in Europe

Percentage of Peer-Review Documents Published in 2014 by Country

- United Kingdom, 26%
- Germany, 19%
- France, 8%
- Spain, 7%
- Italy, 7%
- Netherlands, 6%
- Sweden, 4%
- Belgium, 3%
- Finland, 3%
- Switzerland, 3%
- Rest of W Europe, 14%
Business Management Research in Europe

Average Number of Citations Per Published Document in 2014 by Country

- Switzerland, 0.39
- Finland, 0.28
- Belgium, 0.29
- Sweden, 0.32
- Netherlands, 0.25
- Spain, 0.16
- Italy, 0.25
- France, 0.26
- Germany, 0.14
- Rest of W Europe, 0.17
- United Kingdom, 0.3
Growth of published research from Universidad de Málaga 2006-2015
Most published authors from Universidad de Málaga 2006-2015

- Rodriguez-Castellon, E.
- Alba, E.
- Molina-Fernandez, I.
- Ortega-Monux, A.
- Halir, R.
- Ramos-Barrado, J.R.
- Cotta, C.
- Jimenez-Lopez, A.
- Vallecillo, A.
- Ramos, J.I.
- Fuentes, L.
- Martin, F.
- de Vicente, A.
- Sandoval, F.
- Real, R.
Spain – International Collaboration

% Documents with more than one country

[Graph showing the percentage of documents with more than one country from 1996 to 2014, with a steady increase over the years.]
Printing and publishing –
A *brief* history . . .

- **Han dynasty**
  - The earliest woodblock printing can be traced to China more than 2220 years ago.

- **11th Century**
  - Koreans experiment with movable type, using clay, wood, bronze and iron.

- **1439**
  - Johannes Gutenberg generally recognised as the inventor of the printing press

- **1969**
  - Gary Starkweather, American inventor of the laser printer

- **25th December 1990**
  - Tim Berners-Lee – accredited with inventing the WWW
Why Publish?
Why Publish in Journals?

Your published paper…

• Is a **permanent** record of your work

• Appears in **print and electronically**

• Is **improved** via the double-blind peer review process

• Is actively **promoted** by the publisher

• Is **trustworthy** – material that has been published carries a QA stamp
Why Publish with Emerald?

• Articles are available to download via Emerald EarlyCite prior to official publication

• Receive 3 months free access to the journal upon publication

• Your download figures emailed to you after 3 and 12 months

• Annual Awards for Excellence

• Promotion of published content via Emerald Literati Network of over 80,000 authors
Research Cycle

- Funding
- Research
- Publication
- Analysis
Journal Publishing Landscape

- 5,000 new editors per year
- 500 new journals launched per year

- Solicit and manage submissions

- Organise editorial boards
- Launch new specialist journals

- Archive and promote

- Publish and disseminate

- Edit and prepare

- Manage peer review

- Production

- 1.5 million new articles produced per year
- 350 years of back issues scanned, processed and data-tagged

- 125,000 editors
- 350,000 editorial board members
- 30 million+ author/publisher communications per year

- 40 million articles available digitally, back to early 1800s

- 12 million researchers
- 4,500+ institutions
- 180+ countries
- 1 billion+ downloads/year
- 10 million+ printed pages/year

- 2.5 million+ referees
- 3.75 million+ referee reports per year
- 50%+ of submissions rejected

- 3 million+ article submissions per year
- 500 new journals launched per year
- 3.75 million+ referee reports per year
- 40 million articles available digitally, back to early 1800s
- 12 million researchers
- 1 billion+ downloads/year
- 10 million+ printed pages/year
- 2.5 million+ referees
- 3.75 million+ referee reports per year
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- 1.5 million new articles produced per year
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- 1 billion+ downloads/year
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- 3 million+ article submissions per year
- 500 new journals launched per year
- 3.75 million+ referee reports per year
- 40 million articles available digitally, back to early 1800s
- 12 million researchers
- 1 billion+ downloads/year
- 10 million+ printed pages/year
- 2.5 million+ referees
- 3.75 million+ referee reports per year
- 50%+ of submissions rejected

- 3 million+ article submissions per year
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- 3.75 million+ referee reports per year
- 40 million articles available digitally, back to early 1800s
- 12 million researchers
- 1 billion+ downloads/year
- 10 million+ printed pages/year
- 2.5 million+ referees
- 3.75 million+ referee reports per year
- 50%+ of submissions rejected
Growth of scholarly journals

- The most important 15,000 of these published over 1.3 million research articles in 2008.
- That’s about one every 24 seconds.
- But each one takes about 30 minutes to read.

“This is truly the decade of the journal and one should seek to limit their number rather than to increase them, since there can be too many periodicals.”

- Neues medicinisches Wochenblatt fur Aerzte (1789)
Why is it important to write a good paper?

Before submitting an article make sure it is as good as you can make it.

Not only because it makes YOUR life easier - your chances of acceptance will be increased - …but also the lives of the Editors and Reviewers.

Editors and Reviewers are already overloaded. Incomplete manuscripts create great frustration.
Can I publish this?????

• Have you done something new and interesting?
• Have you checked the latest results in the field?
• Have the findings been verified?
• Have the appropriate controls been performed?
• Do your findings tell a nice story or is the story incomplete?
• Is the work directly related to a current hot topic?
• Have you provided solutions to any difficult problems?

If all answers are “yes”, a good, strong manuscript is what is needed next
An international editor says:

“The following problems appear much too frequently”

- Submission of papers which are clearly out of scope
- Failure to format the paper according to the Guide for Authors
- Inappropriate (or no) suggested reviewers
- Inadequate response to reviewers
- Resubmission of rejected manuscripts without revision
- Inadequate standard of English
Correct use of language saves your editor and reviewers the trouble of guessing what you mean.

Complaint from an editor:  
“This paper fell well below my threshold. I refuse to spend time trying to understand what the author is trying to say. Besides, I really want to send a message that they can't submit garbage to us and expect us to fix it. My rule of thumb is that if there are more than 6 grammatical errors in the abstract, then I don't waste my time carefully reading the rest.”
Your article should be of value...

- To yourself
  Your article is your passport to your professional community
- To the research community
  A research study is meaningful only if it is clear/understood/reproducible….. and **USED**
What is a good manuscript?

- A good manuscript makes readers grasp the scientific significance **easily**
- It has a **clear, useful and exciting** message
- It is presented and constructed in a **logical** manner

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2009 Nobel Prize for Physiology or Medicine awarded to Elizabeth Blackburn
How to write a good manuscript: Preparations before starting

Decide which type of paper is most appropriate

• **Full articles/original articles/research articles**
  • Standard for disseminating completed research findings
  • Typically 8-10 pages, 5 figures, 25 references
  • Draft and submit the paper to appropriate journal
  • Good way to build a scientific research career

• Review papers/perspectives
• Letters/rapid communications/short communications
How to write a good manuscript:
Preparations before starting

• **Review papers/perspectives**
  • Critical synthesis of a specific research topic
  • Typically 10+ pages, 5+ figures, 80 references
  • Typically solicited by journal editors
  • Good way to **consolidate** a scientific research career

• Letters/rapid communications/short communications
How to write a good manuscript:
Preparations before starting

• Letters/rapid communications/short communications

  – Letters / Rapid Communications / Short Communications are usually published for the quick and early communication of significant and original advances; much shorter than full articles (usually strictly limited by the journal).

  – there are also short communication or “letters” journals in some fields where authors can present short preliminary findings and then usually follow up with a full length paper.
Journal Selection

Selection of a journal will depend on many factors in addition to journal metrics

“Never submit work to a journal that you do not read yourself. If you do, the chances are your work will be rejected. This is because you will not have the necessary ‘feel’ about what is appropriate. You won’t have the necessary sense of the ‘culture’. “(Prof Michael Curtis)

- The aims and scope of the journal
- The type of manuscript you have written (review, letter, articles)
- The specific subject area
- The significance of your work
- The prestige/quality of the journal
- The respect of the editors in the field
- The editorial and production speed of the journal
- The community and audience associated with the journal
- The coverage and distribution (regional, international)
Preparations before starting:

Read the Guide for Authors

Apply the Guide for Authors to your manuscript, even to the first draft (text layout, paper citation, nomenclature, figures and table, etc.). It will save your time, and the editor’s.
Constructing your article

Each section of a paper has a definite purpose

• Title
• Abstract
• Keywords

• Main text (IMRAD)
  – Introduction
  – Methods
  – Results
  – And
  – Discussions

• Conclusion
• Acknowledgement
• References
• Supporting Materials

• Make them easy for indexing and searching (informative, attractive, effective)

• Journal space is precious. Make your article as brief as possible.

• If clarity can be achieved in $n$ words, never use $n + 1$
The Title

- **Tell readers what your paper is all about**
  - Attract the reader’s attention
  - Be specific
  - Keep it informative and concise
  - Avoid jargon and abbreviations
<table>
<thead>
<tr>
<th>Original Title</th>
<th>Revised</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary observations on the effect of Zn element on anticorrosion of zinc plating layer</td>
<td>Effect of Zn on anticorrosion of zinc plating layer</td>
<td>Long title distracts readers. Remove all redundancies such as “observations on”, “the nature of”, etc.</td>
</tr>
<tr>
<td>Action of antibiotics on bacteria</td>
<td>Inhibition of growth of mycobacterium tuberculosis by streptomycin</td>
<td>Titles should be specific. Think to yourself: “How will I search for this piece of information?” when you design the title.</td>
</tr>
<tr>
<td>Fabrication of carbon/CdS coaxial nanofibers displaying optical and electrical properties via electrospinning carbon</td>
<td>Electrospinning of carbon/CdS coaxial nanofibers with optical and electrical properties</td>
<td>“English needs help. The title is nonsense. All materials have properties of all varieties. You could examine my hair for its electrical and optical properties! You MUST be specific. I haven’t read the paper but I suspect there is something special about these properties, otherwise why would you be reporting them?” – the Editor-in-chief</td>
</tr>
</tbody>
</table>
The Abstract

• This is the advertisement of your article. Make it interesting, and easy to be understood without reading the whole article.
• You must be accurate and specific!
• A clear abstract will strongly influence whether or not your work is further considered.
• Keep it as brief as possible!!!
Keywords

Used by indexing and abstracting services

• They are the labels of your manuscript.
• Use only established abbreviations (e.g. DNA)
• Check the “Guide for Authors”

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>“An experimental study on evacuated tube solar collector using supercritical CO2”</td>
<td>Solar collector; Supercritical CO2; Solar energy; Solar thermal utilization</td>
</tr>
</tbody>
</table>
Most of the previous investigations of emulsion stabilization by protein–polysaccharide conjugates have been concerned with model systems based on hydrocarbon oils or triglyceride oils under nearly ideal aqueous solution conditions. The present paper aims to demonstrate the potential of this type of conjugate for making and stabilizing more challenging and complex emulsion systems of low pH and raised ionic strength. The compositional conditions are focused here towards carbonated beverage systems based on an emulsified flavour oil in the presence of a commercial colouring agent.

Do NOT mix introduction with results, discussion and conclusion
Methods – how was the problem studied?

• Include detailed information so that a knowledgeable reader can reproduce the experiment.

• However, use references and supplementary materials to indicate the previously published procedures.
Results

What have you found?
• Present essential/primary results
• Use sub-headings
• Use figures/illustrations
  – Graphs
  – Tables
  – Photos

<table>
<thead>
<tr>
<th>Type of attack</th>
<th>Classical (%)</th>
<th>Pop (%)</th>
<th>Jazz (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echo addition</td>
<td>0</td>
<td>0.10</td>
<td>0.27</td>
</tr>
<tr>
<td>Noise addition</td>
<td>1.20</td>
<td>1.42</td>
<td>1.60</td>
</tr>
<tr>
<td>Band equalization</td>
<td>2.31</td>
<td>2.50</td>
<td>2.73</td>
</tr>
</tbody>
</table>

Fig. 1. A photograph of SEM of PTFE polymerized in solid state at 77 K with a dose of 500 kGy.

Fig. 5. Variations in the CO2 pressure measured with the solar in the band (b).

```latex
\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Type of attack & Classical (%) & Pop (%) & Jazz (%) \\
\hline
Echo addition  & 0             & 0.10    & 0.27     \\
Noise addition & 1.20          & 1.42    & 1.60     \\
Band equalization & 2.31      & 2.50    & 2.73     \\
\hline
\end{tabular}
\end{table}
```
Discussion – what the results mean

Describe

• How the results relate to the study’s aims and hypotheses
• How the findings relate to those of other studies
• All possible interpretations of your findings
• Limitations of the study

Avoid

• Making “grand statements” that are not supported by the data
• Introducing new results or terms

Don’t ignore work in disagreement with yours – confront it and convince the reader you are correct
4. Conclusions

A high conductivity form-stable phase change material was prepared by blending polyethylene glycol, silica gel, and aluminum nitride powder. The composite PCMs exhibit desirable thermal properties including desirable heat latent and thermal conductivity.

Thermal conductivity of the composite PCMs was improved by using β-Aluminum nitride additive with great conductivity as a heat transfer promoter. The value of thermal conductivity changed from 0.3847 W m\(^{-1}\) K\(^{-1}\) to 0.7661 W m\(^{-1}\) K\(^{-1}\) with the increase of mass ratio of β-AlN from 5% to 30%. Correspondingly, the latent heat of various composite decreased in this case. However, the properties of the composite PCM were not affected too much by the additive of high conductivity powder.

As the thermal conductivity enhanced by adding β-AlN additive, and the heat latent of fusion keep suitable value, the composite PCMs considered as a promising PCMs candidate for energy storage.

Acknowledgements

• Acknowledge anyone who has helped you with the study, including:
  • Researchers who supplied materials or reagents, e.g. vectors or antibodies
  • Anyone who helped with the writing or English, or offered critical comments about the content
  • Anyone who provided technical help

• State why people have been acknowledged and ask their permission

• Acknowledge sources of funding, including any grant or reference numbers
Typically, there are more mistakes in the references than any other part of the manuscript.

It is one of the most annoying problems, and causes great headaches among editors...

- Cite the main scientific publications on which your work is based
- Do not inflate the manuscript with too many references
- Avoid excessive self-citations
- Avoid excessive citations of publications from the same region
- 25-35 references are appropriate for a full text article
Who is the first author?

General principles for who is listed first

- **First Author:**
  - Conducts and/or supervises the data analysis and the proper presentation and interpretation of the results
  - Puts paper together and submits the paper to journal
  
- **Co-Author(s):**
  - Makes intellectual contributions to the data analysis and contributes to data interpretation
  - Reviews each paper draft
  - Must be able to present the results, defend the implications and discuss study limitations

Abuses to be avoided

- **Ghost Authors:** leaving out authors who should be included

- **Gift Authors:** including authors when they did not contribute significantly
This is your chance to speak to the editor directly

- Submitted along with your manuscript
- Mention what would make your manuscript special to the journal
- Note special requirements (reviewers, conflicts of interest)
- Indicate approval of all authors for submission

Dear Professor Schmidt,

Enclosed with this letter you will find an electronic submission of a manuscript entitled “Mechano-sorptive creep under compressive loading – a micromechanical model” by John Smith and myself. This is an original paper which has neither previously nor simultaneously in whole or in part been submitted anywhere else. Both authors have read and approved the final version submitted.

Mechano-sorptive is sometimes denoted as accelerated creep. It has been experimentally observed that the creep of paper accelerates if it is subjected to a cyclic moisture content. This is of large practical importance for the paper industry. The present manuscript describes a micromechanical model on the fibre network level that is able to capture the experimentally observed behaviour. In particular, the difference between mechano-sorptive creep in tension and compression is analysed. John Smith is a PhD-student who within a year will present his doctoral thesis. The present paper will be a part of that thesis.

Three potential independent reviewers who have excellent expertise in the field of this paper are:

Dr. Fernandez, Tennessee Tech, email1@university.com
Dr. Chen, University of Maine, email2@university.com
Dr. Singh, Colorado School of Mines, email3@university.com

I would very much appreciate it if you would consider the manuscript for the International Journal of Science.

Sincerely yours,

Dr. Professor
Final checks before submission

- Ask colleagues to read and be critical
- All requirements from Guide for Authors are met
- Scope of paper is appropriate for journal
- Have your manuscript checked for language, either by a native English speaker or an editing service
- Ensure that the literature cited is balanced and that aims, purpose and significance of results are clear
- Use a spellchecker!
Rejection

It starts from an early age. Get used to it!
Rejection

- Don’t despair – it happens to everybody
- Try to understand WHY, consider reviewers’ advice
- Be self-critical
- If you want to submit to another journal, begin as if you are going to write a new article. Read the Guide for Authors of the new journal, again and again.
Suggested strategy for submitting elsewhere:

- In your cover letter, you can declare that the paper was rejected and name the journal.
- Include the referees reports and show how each comment has been addressed.
- Explain why you are submitting the paper to this journal; is it a more appropriate journal?
Publication Ethics
Publication Ethics

X Do not submit to more than one journal at once
X Do not plagiarise or self-plagiarise
X Do not publish a case study or interview without clearing permission

✓ Get permission for figures and tables you have not created
✓ Seek agreement between authors
✓ Disclose any conflict of interest

Authors and editors are supported by the Committee on Publication Ethics (COPE)
Plagiarism

• The act of taking someone else’s work and passing it off as your own

• Hard to detect with peer review but there are new tools to help us

• Emerald’s entire portfolio is included in iThenticate web-based software from iParadigms http://www.ithenticate.com/

• Emerald’s Plagiarism Policy can be seen at http://www.emeraldinsight.com/about/policies/plagiarism.htm

• For more general information visit http://www.plagiarism.org/
German minister loses doctorate after plagiarism row

Germany's defence minister has been stripped of his university doctorate after he was found to have copied large parts of his work from others.

Karl-Theodor zu Guttenberg, an aristocrat who lives in a Bavarian castle, admitted breaching standards but denied deliberately cheating. Analysis revealed that more than half of his thesis had long sections lifted word-for-word from the work of others.

So far the German Chancellor, Angela Merkel, has stood by the minister. The University of Bayreuth decided that Mr Guttenberg had "violated scientific duties to a considerable extent."

It deplored the fact that he had lifted sections of text without attribution.

Last week Mr Guttenberg said he would temporarily give up his PhD title while the university investigated the charges of plagiarism. He admitted that he had made "serious mistakes".

Related Stories

Germany’s Baron without a title
Plagiarism row
minister drops PhD

Hungarian president resigns over doctorate plagiarism scandal

Pál Schmitt steps down after university revokes doctorate, saying Olympics thesis was mostly copied from two authors

Associated Press in Budapest
The Guardian, Monday 2 April 2012 13.29 BST

The Hungarian president, Pál Schmitt, who has announced his resignation.

Photograph: Matej Divizna/EPA

The Hungarian president, Pál Schmitt, has announced he will resign after losing his doctorate in a plagiarism scandal.

Schmitt, who was elected to his largely ceremonial office in 2010 for a five-year term, said in a speech at the start of parliament's plenary session that he was stepping down because his "personal issue" was dividing Hungary.
Copyright

- As the author, you need to ensure that you get permission to use content you have not created
- This should be done before you submit your work to avoid delays in publication
- Supply written confirmation from the copyright holder when submitting your manuscript
- If permission cannot be cleared, we cannot republish that specific content

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http://www.emeraldinsight.com/authors/writing/best_practice_guide.htm
http://www.emeraldinsight.com/authors/writing/permissions.htm
Dissemination and Promotion
Dissemination and Promotion

- Spread the word effectively within your community
- Let people know it is now available to be read and cited
- Make the most of your publisher’s PR campaign, work with them to develop relevant, successful marketing messages
- Let your institutional press office know so they can spread the word – does your institution subscribe?
- Contact those you’ve cited
- Promote through social media channels
Summary and Useful Resources
Beyond Authorship

Other important publishing work that you might wish to get involved in include:

- Book reviewing
- Refereeing/peer review
- Editorial advisory board membership
- Contributing editorship
- Regional editorship
- Editorship
- Interested in proposing a book/series or a journal?

If you would like to be involved – get in touch!
Emerald Resources

www.emeraldgrouppublishing.com

provides numerous resources for authors

Register your profile to receive updates relevant to your subject area:
http://www.emeraldinsight.com/profile/index.htm

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Calls for reviewers
Award notifications about your subject area or region
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• An article processing charge of $1,595 or £995 GBP is paid upon acceptance

http://www.emeraldinsight.com/openaccess
To Summarise….

Keep these points in mind to achieve….

P - Presentation
U - Understand your target market
B - Be ethical
L - Learn from the review process
I - In collaboration
C - Check and check again
A - Attention to detail
T - Take your time
I - Involve your peers
O - Originality
N - Now spread the word!
Any Questions...?