DEMystifying THE PUBLICATION PROCESS

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Overview

- Why Publish?
- “No Man is an Island”
- The Basics of the Publication Process (Publication 101)
- Choosing the Correct Journal/Media
- The Trouble with Author(ship)!
- The Review Process (How it Works and what to expect)
- Final Thoughts
To be competitive for grants, fellowships, and training internships, publications and presentations are a must.

Consider this: **SOMEONE** in the pool will have them, don’t you want that to be you?
PUBLICATION IS A MAJOR REQUIREMENT TO GET AN ACADEMIC JOB

Typical publication requirements for academic jobs at doctoral granting institutions:

**STEM fields** *(required; no pubs, NO JOB! No pubs after hire, NO TENURE!)*

**Social Sciences** *(typically required to be competitive as others WILL have them)*

**Humanities** *(typically deals with books, but some disciplines are moving toward other publication mechanisms)*

**Education** *(based on specific discipline, but lack of publication is a disadvantage)*

**Arts** *(typically performance and portfolio based, but can involve publication)*
Although the primary writing may be done by one person, the publication process should not be undertaken without consultation and advising from:

- Postdoc Advisor,
- Faculty in the discipline,
- Other departmental members experienced in the process,
- Peers
1) Develop and discuss the basic idea/hypothesis/goal/outcome/scope/impact

Whether this is a single or multiple authorship manuscript, the author/s should engage in discussions with relevant faculty and peers about the goals, scope and impact of the work to determine the suitability of publication.

It is critical to have a strong consensus before moving forward with the manuscript and this can save much pain and anguish if the project is deemed to be premature or not well developed at its current stage.
2) Determine writing/research workflow and authorships (if multiple authors are involved).

The author/s should engage in discussions about the workflow and responsibilities prior to undertaking as well as during the work.

It is highly desirable to reach an agreement about the authorship before the manuscript is submitted. This may or may not be put in writing and signed by all parties.

It is desirable to have a defined workflow outline that list timelines and responsibilities.
THE TROUBLE WITH AUTHORSHIP

- ESTABLISHED PRACTICES FOR FUNDED RESEARCH
- WHO GETS TO BE AN “AUTHOR”

This is a tricky one that may be handled differently by faculty members within and across disciplines. With many projects involving multiple individuals in specialized roles, this is something that must be discussed.

Typically “substantial” contributions are required to gain authorship. This could include substantial data analysis, contribution of a figure or graph or intellectual insights that helped the project overcome a stumbling point. The level of contribution will determine if this is a secondary, tertiary or other authorship.
THE TROUBLE WITH AUTHORSHIP

- SOME CONSIDERATIONS

- HAVE A CONVERSATION WITH THE MAJOR PROFESSOR

  - The best way to avoid issues with authorship is to have the conversation and not make assumptions regarding authorship.
  - The conversation should be done at the beginning of the project.

- A good source of information is:
  
  *A Graduate Student's Guide to Determining Authorship Credit and Authorship Order*

  by the American Psychological Association
### Activities Associated with Research Manuscript/Poster: Points and Method of Assignment

This instrument should be completed collaboratively, with discussion including all contributors. Scores are estimates and are negotiable as the project progresses. Some of the items may not be appropriate for studies analyzing existing data and authorship “cut-off” scores may have to be adjusted. Please note that these scores should be used as guidelines and that the final order of authors might not reflect the rank of the contributors’ scores.

<table>
<thead>
<tr>
<th>Activity Category</th>
<th>Total Points</th>
<th>Method of Assigning Points</th>
<th>Contributor Score (the total of these columns should equal the Total Points column)</th>
<th>Initials</th>
</tr>
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<tbody>
<tr>
<td>Conceptualizing and refining research ideas</td>
<td>50</td>
<td>Q</td>
<td></td>
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<tr>
<td>Literature search</td>
<td>20</td>
<td>T</td>
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<tr>
<td>Creating research design</td>
<td>30</td>
<td>Q</td>
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<td>Instrument selection</td>
<td>10</td>
<td>Q</td>
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<td>Instrument construction/questionnaire design</td>
<td>40</td>
<td>Q/T</td>
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<tr>
<td>Selection of statistical tests/analyses</td>
<td>10</td>
<td>Q</td>
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<tr>
<td>Performing statistical analyses and computations</td>
<td>10</td>
<td>T</td>
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<tr>
<td>Collection and preparation of data (gathering, scoring/coding, entering)</td>
<td>40</td>
<td>Q/T</td>
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<tr>
<td>Interpretation of statistical analyses</td>
<td>10</td>
<td>Q</td>
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<tr>
<td>Drafting manuscripts/posters</td>
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<td>T</td>
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<tr>
<td>Second draft</td>
<td>30</td>
<td>T</td>
<td></td>
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<tr>
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<td>T</td>
<td></td>
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<tr>
<td>Editing manuscript</td>
<td>10</td>
<td>T</td>
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</tbody>
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*Q = points assigned on qualitative criteria; T = points assigned based on proportion of total time expended on the task or on proportion of total pages drafted or revised; Q/T = points assigned partly on the basis of time spent on the tasks and partly on qualitative criteria. 

**50 points minimum to be an author

This table is based on information described in the following article:

ESTABLISHED PRACTICES FOR FUNDED RESEARCH

In most cases where research has been funded through a grant or contract to a research professor, inclusion of their name on the publication is a standard practice even if they did not carry out any of the experiments.

This is because:

1) They wrote the grant that funded the work and came up with the ideas
2) Publication is expected from the project and they must show progress
3) They likely contributed to the editing and review of the paper and will be required to submit and pay for it.
ESTABLISHED PRACTICES FOR FUNDED RESEARCH

Where there is co-authorship of a publication that was derived from a research grant or contract, the FIRST AUTHOR is the one that typically carried out the bulk of the experiments and data analysis (even if they did not write the bulk of the paper).

For an established research laboratory in the life science, health and engineering fields, it is typical for the research professors name to be LAST AUTHOR on the publication and listed as the corresponding author to the work (meaning that questions will be addressed to her/him).
ESTABLISHED PRACTICES FOR FUNDED RESEARCH

CO-FIRST AUTHORS

It is possible to have co-first authors when two individuals have contributed equally to the work of a major project. Usually, an *asterisk will be used with a footnote stating: *BOTH AUTHORS CONTRIBUTED EQUALLY TO THE WORK.

On a CV, the author that ends up in the 2nd slot can make this clear so that when they are evaluated, their contribution can be noted.
THE TROUBLE WITH AUTHORSHIP

UNFUNDED RESEARCH

There are no defined rules here except that co-authorship is based on the overall contribution to the work by the parties involved in the project.

Discussions with all contributors up front is essential to avoid messy and unnecessary grievances and hurt feelings.

WHEN IN DOUBT, ERR ON THE SIDE OF AUTHORSHIP. Sometimes putting someone on as an ancillary author if they made a contribution to the work will pay off many fold.
ACKNOWLEDGMENTS

In most journal articles a final section either before or after the references allows an author to provide acknowledgements to those that participated in any aspect of the publication, but did not do enough to become an author.

THE RULE OF THUMB IS TO BE LIBERAL IN GIVING ACKNOWLEDGEMENTS!

Someone that helped with editing, finding a key reference, providing a reagent.
You can never lose by listing someone, but you certainly can lose if you forget someone!
COMMON REASONS TO CHANGE TO AUTHORSHIP

- Addition of new authors
- Deletion of authors originally on the project
- Changes to authorship order
THE TROUBLE WITH AUTHORSHIP

- COMMON REASONS TO CHANGE TO AUTHORSHIP
  - CHANGES TO AUTHORSHIP ORDER
    - The contribution changed or was not completed
    - An Individual left or graduated before the project was completed
    - An individual took on a higher responsibility
    - An individual delegated responsibility to someone else
DISPUTES

- Resolution with the faculty member and research team
  - (is there any type of signed agreement or paper trail?)
- Discussion with the Graduate Program Director
- Discussion with the Departmental Chair
- Discussion with the Office of Graduate Studies
- Discussion with the Provost’s Office
DISPUTES

- Authorship disputes are not included within the university's policies for research misconduct. Helpful information is available on the USF Health Web Page for Determination and Responsibilities of Authorship. For concerns related to authorship, please contact Dr. Dwayne Smith, Vice-Provost for Faculty and Program Development as well as Dean of the Office of Graduate Studies, at mdsmith8@usf.edu.

RESOURCES

- http://health.usf.edu/research/compliance/coi_authorship.asp.htm
3) **Determine the correct journal/media for submission.**
The author/s should agree on the journal/media to which the manuscript will be submitted – impact on the structure and scope

4) **Construct the manuscript to meet submission requirements.**
The manuscript must be constructed to the specifications of the journal:

- **Scope**
- **Organization and Style**
- **Page and Word Limits**
- **Figures and Diagrams**
- **References**
It is important to consider that the major point of publication is to disseminate the research/ideas so that they are read and cited by others.

The ability to search the web for key terms assures that almost all published research can be found, regardless of the perceived “impact” of the journal.

The choice of the journal needs to be done carefully and should always be done in consultation with a faculty member that has published in the discipline.
SOME CONSIDERATIONS

- Most research professors know the hierarchy of the journals in their discipline. They can be classified as:
  
  - ASPIRATIONAL NATIONAL JOURNALS
  - UPPER LEVEL IN THE DISCIPLINE
  - MID LEVEL IN THE DISCIPLINE
  - LOWER LEVEL IN THE DISCIPLINE
CHOOSING THE CORRECT JOURNAL/MEDIA

SOME CONSIDERATIONS

- IMPACT FACTOR
  - Based on a numerical scale with 0 being the lowest.
  - Primarily based on citations.
  - Can be sorted by discipline to gauge the “top” journals in a given field.
  - Over 1.3 million articles published yearly in over 23k scholarly journals

- Science = 28.103
- Nature = 31.43
- J. Cell Biol = 9.10
- Any journal >4.0 has high impact (upper 6% of all journals)
Impact Factors are Not Without Controversy

Your (real) Impact Factor

\[
\text{Impact Factor (corrected)} = \frac{\# \text{ times your work is cited} - \# \text{ citations that actually trash your work} - \# \text{ times you cited yourself (nice try)} - \# \text{ times you were cited just to pad the introduction section} - \# \text{ citations the editor pressured the author to include to increase the journal's impact factor}}{\# \text{ original articles you've written} + \# \text{ articles you were included in out of pity or politics} + \# \text{ not-so-original articles you've written copied and pasted}}
\]

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ASPIRATIONAL NATIONAL JOURNALS

- The top National journals that publish multiple research from disciplines. These journals include: *Science, Nature, Proceedings of the National Academy of Sciences* etc.

- Reserved for the very top, never been done before, dogma-changing research.

- A high quality researcher may only publish 1-2 articles in these journals in their 30+ year career (or never).
**CHOOSING THE CORRECT JOURNAL/MEDIA**

- **UPPER-LEVEL JOURNALS**
  - These represent the top 4-5 journals in the discipline. Very prestigious and important in establishing a researcher as a “player” in the field. Typically read by all in the discipline and may be associated with a society.
  - Research with the highest impact in the discipline, but perhaps not high enough impact for the National journals (i.e. outside of the discipline). Acceptance rates are very low.
  - To develop as a top level researcher in the discipline and establish credibility that will translate to research funding, a researcher needs to continually publish in these types of journals.
CHOOSING THE CORRECT JOURNAL/MEDIA

- MID-LEVEL JOURNALS
  - These represent the next tier of journals in the discipline, but are a step down in impact and prestige from the upper-level journals.
  - Research that does not have as high an impact but is significant to the discipline. These are typically easier to get accepted into. To establish credibility in the field, a researcher does not want to have the majority of their publications in these journals.
  - These types of journals may be at the level of an initial graduate student research project.
LOWER LEVEL JOURNALS

These represent the lower third of journals in the discipline. Sometimes these are very good journals in their own right, but may have limited scope and be very focused in a sub-discipline (thus have a low impact factor based on citations).

Publication is typically for research that has not been accepted into either of the other two classes of journals (you may have tried!). Continued publication in these journals at the expense of pubs in the upper and mid tier will impact grants and career advancement.
WHAT ABOUT ONLINE JOURNALS?

Publication in a journal that is only published online and not associated with a specific society needs careful consideration.

- Is it accepted by the discipline as a publication?
- Does it have an established impact factor?
- What is the rigor and how is the quality judged?
**CHOOSING THE CORRECT JOURNAL/MEDIA**

- **HOW DO YOU MAKE THE CHOICE?**

- The quality, impact and scope of the work will determine the type of journal for the initial submission. Subjective.

- That is why it is critical to have a **discussion with the faculty mentor or others in the discipline** that can help guide the process if this will be a single author submission.

- One must be realistic and while it is great to “Shoot for the Moon!”, rejection and resubmission to a lower-tier journal is not trivial.
4) Construct the manuscript to meet submission requirements.

It is critical to read articles from the journal to gain an appreciation for the scope and writing style.

If these differ from what has been prepared or what is comfortable, choose another journal.
5) Compile agreements for outside materials (if relevant).

If you are using materials (figures, diagrams etc) that are not original and have been previously published, you must obtain permission agreements.

*USF Library can help with this process.*
PUBLICATION 101

6) Complete the manuscript and make the submission.
If the writing is a collaborative effort, be prepared to go through multiple reviews and revisions. This is especially true when working with an established professor who has published multiple papers.

Remember: “It’s not personal, it’s business!”

Even if the writing is NOT a collaborative effort, the work should be given to faculty, peers, or both for comments and editing. A faculty member that has published or reviewed for the journal where the submission is being made, can provide a wealth of insights.

*MAJOR RULE: If you want the paper rejected, just do it alone!
Complete the manuscript and make the submission. Most major journals require an online submission of all components. Figures and diagrams are required to be professionally prepared in high resolution and uploaded as .tiff or .jpeg files.

Many journals (especially in STEM fields) require the payment of page-charges to cover the publication costs. This can sometimes run $1,000-2,000. Typically this is paid by the grants that subsidized the research.
THE REVIEW PROCESS

- BASICS
  - Manuscripts submitted to all scholarly journals go through a rigorous peer-review process.
  - The Tiers:
    - A MAIN EDITOR will receive the manuscript and will be the person that will oversee the review process, pick the peers that will carry out the review, read and evaluate the reviews and make the recommendation to accept or reject.
INITIAL PRE-REVIEW TO ALLOW FURTHER REVIEW

In some cases, the submitted manuscript must go through an initial pre-review to determine its suitability for publication in the journal.

This is generally a rapid process where the submission will be screened by an editor and then either accepted for further peer review or sent back without consideration.

Journals that have this type of policy sometimes require a letter of intent before even looking at the manuscript for
Peer review is the process where the manuscript is evaluated by 2-3 experts in the field to determine the suitability for publication. They are selected by the editor based on their expertise in the field.

Although some journals provide the ability of authors to suggest possible reviewers as well as those that they would NOT like to review, the editor is under no obligation to follow these recommendations.

Depending on the discipline and journal, the peer process can take anywhere from
- 3 weeks to 6 months.
PEER REVIEW

Reviewers will then recommend one of several actions:

- Reject
- Accept with Major Revision
- Accept with Minor Revision
- Accept as submitted
REJECT

- The authors will receive the critique that explains why the manuscript was rejected.

- Manuscripts that have been rejected in this manner have little chance to become accepted to that journal unless they are completely re-written and submitted as a new manuscript.

- In these cases, the best course of action to read the critique carefully, address the perceived deficiencies and submit to a different journal. Discussions with the editor are unlikely to result in changes to the decision.
ACCEP WITH MAJOR REVISION

The authors will receive the critique that explains what need to be fixed. “Major Revision” typically means that NEW RESULTS are expected to be included in the revised manuscript.

This type outcome, while positive for possible publication, usually includes a caveat that the manuscript go back to the same reviewers for re-review and acceptance. It will also include a defined timeline for re-submission.

Thus, it is still possible to still end up with a manuscript that will be rejected.

The best course of action to to read the critique carefully, address the perceived deficiencies and submit for re-review. The re-review may take another 2-6 months. If the outcome is negative, a discussion with the editor may be necessary.
THE REVIEW PROCESS

- **ACCEPT WITH MINOR REVISION**
  
  - This is the type of review that is a strong indication that the manuscript will ultimately be accepted.
  
  - The changes to be made are typically minor and can usually be completed without the need for new results. However, if the authors have held back on some results, the addition of new results that better articulate key points in need of revision, is a good strategy.
  
  - The best course of action is to GET WITH IT and make the changes as quickly as possible and resubmit. The re-review should be fast with acceptance within 24 hrs of receipt (in the best case!).

THE REVIEW PROCESS

- ACCEPT WITHOUT REVISION
  - A rarity to be sure.
  - Go out and celebrate!
  - *(but not too much as you need to get started on the next project!)*
DEALING WITH THE REVIEWS
(or, how to avoid wanting to kill yourself!)

Getting angry at a bad review is a natural reaction.

Everyone has been rejected at some point!

Never make an email response to the journal or editor immediately after reading the review. Walk away for 24 hrs, calm down and then come back and really read what has been said by all of the reviewers.
DEALING WITH THE REVIEWS

- Work the problem. Look for the trends across the different reviewers. If new studies are required by all reviewers, weigh all options in a meeting with all authors and develop a strategy of workflow and timelines just as was done at the start of the project.

- It may be determined that resubmission is not the solution and that submission to another journal is the best course of action.

- If a revision will be submitted, all points will have to be addressed in a rebuttal letter (even if there is disagreement about it).
THE REVIEW PROCESS

- THE REBUTTAL LETTER

- Usually will be written by the senior author on the paper (who may or may not be the first author).

- All points raised by all reviewers should be addressed one-by-one stating:

1) Exactly what was done
2) Where it can be found (page number, line etc)
3) If it was not done, why it was not done (with articulation)
THE REBUTTAL LETTER

The rebuttal letter should always be structured in a positive way:

- “The helpful comments of the reviewer have allowed....
- “We appreciate the comment and attention to detail....
- “Although the comments of the reviewer are well articulated, we have addressed this point.............
- “We have made the change as requested and feel this is now a much stronger....

Remember that honey goes a long way and these are peer researchers also involved in the process of publication.
COMMENT AND REPLY

- In some cases, other scholars/researchers will respond to your article.
- Many journals have a section that incorporates these; they often represent some of the most interesting discussion of contentious issues.
- Be sure to address the specific issues raised in the comments.
- Ensure that your reply is accurate and not overly aggressive or snarky.