

Getting Your Research Published in Peer Reviewed Journals

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Publication is critical

- To knowledge and careers
- But getting your work published in peer-reviewed journals is
 - A complex, uncertain process
 - Fraught with contingencies

To be successful, you need to

- Appreciate editors' concerns
 - And give them what they want
- To do that, you also need to
 - Understand publishing landscape
 - Understand your own objectives
 - And match them to appropriate journal

Publishing, Objectives, Journals

Explosion of journal submissions

- Currently over 16 million citations in Medline database
 - In 2002, a little over 11 million
 - 43% increase in 5 years
- Indexed 686,000 citations in 2006
 - Of these, perhaps 350,000+ are biomedical research and review papers

<http://mbr.nlm.nih.gov/>

The number and type of journals

- Has increased as well
- But not at anything like the same rate
- Small number of truly important journals
 - Competition among authors is much higher
 - Stress on editors to improve and raise journal's importance is much greater
 - Often measured by Impact Factor and other citation scores

Impact factor

- Total number cites from other journals in two years, divided by total published articles
 - Am J Epi (2003-4) 2620/517= 5.068 (2005 IF)
- Find journal impact factors (w/ Harvard PIN)
 - <http://isi9.isiknowledge.com.ezp1.harvard.edu/port al.cgi?DestApp=JCR&Func=Frame>
- But impact factors are not everything
 - Editorial stance, mission, readership, etc.
 - Understanding and using impact factors
<http://scientific.thomson.com/free/essays>

To find the 'right' journal

- Consider your scope
- Which public health communities do you want to participate in?
 - Global
 - Open access journals, WHO publications
 - International
 - General journals
 - Peer
 - Society/association journals
 - Specialized
 - Highly targeted journals

Consider your purpose, audience

- What's your purpose?
 - Inform
 - Critique
 - Recommend
- Who's your primary audience?
 - Researchers
 - Clinicians, practitioners
 - Policy-makers

Consider speed, career advancement

- Speed to publication
 - Policies for accepting and rejecting MS
 - What's acceptance-publication time lag?
 - Online submission and distribution
 - Fast track MS assessment
- Career advancement
 - High prestige journal as possible
 - Historical role, reputation, readership, quality, impact factor, other citation scores
 - Tempered by realism

Consider journal hierarchy

- High-prestige journals
 - NEJM (44.01), Science (30.92), Nature (29.27), Lancet (23.04), JAMA (23.33)
- Society, association journals
 - High visibility among peers
- Specialist journals
 - Very narrow audiences, small circulation
- Repositories
 - Universities, libraries, etc.

Determine journal's fitness

- What type of article will you submit?
 - Original research, critical essay, report?
- Read current and back issues of journal
 - Does journal's scope include your topic?
 - Ongoing dialogue on topic?
 - Does it meet your purpose and audience?
 - Good fit with your methods?
 - Empirical–Conceptual
 - Quantitative, qualitative, narrative?
 - Research interests of editorial board?

Be realistic

- High-prestige journals want high-quality, cutting edge work of wide interest
- Rejection rates are high
 - Prestige journals, 95% of submissions
 - Specialist journals, 75-80%
 - Society/Association journals, 65-75%
- Can only submit to one journal at a time
 - Don't let your work get lost in limbo
 - Though some now have fast track process

Editors' concerns

Journals often labor of love

- Run by volunteers, receive little/no support
 - Ad hoc reviewers
 - Can be students, postdocs
 - Staff?
 - Associate editors
 - Editors' function is not to copyedit your work
 - Editor in chief
- Make editors' and reviewers jobs easier
 - Overwhelmed with submissions
 - Looking for any reason to reject your work
 - Successful authors give them what they want

Follow AIs to the letter

- Author Instructions usually include
 - Types of articles, length
 - Formatting text, tables and figures
 - Structured-unstructured abstract
 - Author criteria, funding, conflicts of interest
 - www.icmje.org
 - Presentation and use of statistics
 - Reference style
 - Endnote

What else do editors want?

- Important
- Original
- Relevant to audience
- Methods correct
- Clear research question, Methods, Results

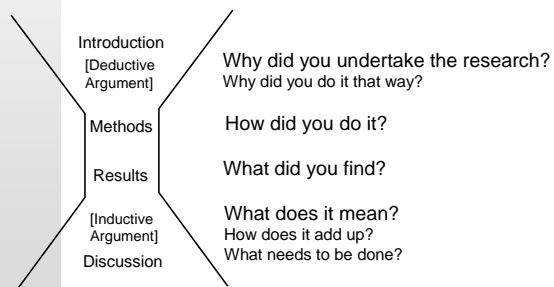
What else do they want?

- Clearly, concisely, engagingly written
 - Cleanest possible copy
 - Requiring as little copyediting as possible
- Well-crafted, critical argument
 - Logically presented series of reasons-evidence in support of a conclusion
 - That assesses evidence for validity
 - Treats counter-arguments and -evidence

Why frame it this way?

- Readers need to be convinced conclusion is valid
 - Otherwise just tables would be published
- Authors can only do this through
 - Critically sifting evidence
 - Presented in logical sequence
 - Question-Problem>Evidence>Conclusion
 - Hence development of IMRAD format

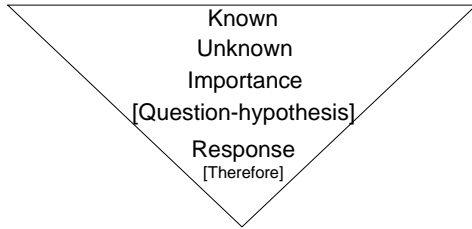
IMRAD argument format



Introduction

- Brief but compelling argument that
 - Justifies why research was done
 - Warrants the methods used
 - Makes clear what type of study you've done
- Identifies gap in knowledge, practice
 - Proposes to fill gap via new research
 - Makes clear what the research will add
 - Clearly states objectives-hypotheses
- "So what?"

Common Intro pathway



Methods 1

- Most important section for editors
 - Where the science is
- Must demonstrate that
 - Were appropriate to answer the question
 - Enough description to be theoretically reproducible
 - More can go online or in appendix
 - Don't explain why you used them

Methods 2

- Ethical approval
- Study design
 - E.g. Prospective-Retrospective?
- Population-Sample
 - How subjects recruited
 - Is sample representative?
 - Inclusion-exclusion criteria
 - How was bias avoided?
- Statistical methods
- Don't tell us what you found
 - That's for Results

Results combine text & visuals

- Visuals give evidence, communicate data concisely, efficiently, revealingly
 - Maximize data, minimize ink
 - *Simple design, intense content.* Edward Tufte
- Words focus on relationships, important features and trends
 - Guide reader to key findings, relationships
- Minimal overlap text-visuals
 - Don't repeat all the data using words
 - Only what's important

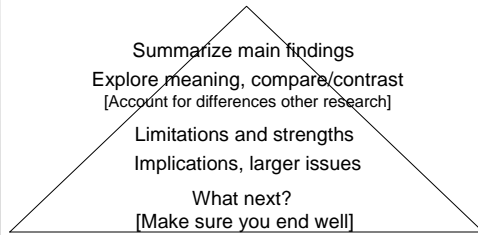
Results 2

- Give big picture, exclude irrelevancies
 - Don't give pages and pages of results
 - Readers easily get lost
 - Make everything as simple as possible, but not simpler. Albert Einstein
- Give CIs [and P values]
 - Make clear, positive or negative study
 - Report all findings that go against 'hypothesis' or expectations
- Present findings in order of importance
- Don't interpret findings here

Discussions are complex arguments

- Restate main findings
- Contextualize: compare similar research
- Identify threats to validity
 - Consider your study design: Why should we believe your conclusion—What other explanations for your results?
 - Temporal trend, selection-recall bias, loss to follow up, low response rate
- Put the study in perspective
 - Assess limitations, generalizability, implications
- Consider specific next steps

Discussion pathway



Titles

- Importance of accurate, eye-catching, pithy title cannot be overstated
 - Reader decision: Title > abstract > tables > text
 - First thing catches potential reader's eye
 - Lives forever w/ abstract online databases
- But often not iterated and no longer fits
 - Always check title "fit" one last time
 - If it does not show that it falls within journal scope, paper may be summarily rejected

Abstracts

- Substantive, stand-alone, concise
 - Structured or unstructured?
 - Background/purpose, methods, results, conclusion
- Clearly indicate positive/negative findings
 - And make clear contribution to knowledge
- Title, keywords, abstract, table titles should reinforce one another
 - But abstracts, keywords often written in haste
 - Papers often rejected at this point
 - Give them time and attention they deserve

Writing is rewriting

- Editors often love language
- Can reject studies that don't read well
 - Poor grammar, syntax, punctuation
 - Excessive and incorrect use passive
 - Abstract nouns-subjects, lack of agency
 - Inflated style/content, verbosity
 - Excessive short, choppy sentences
 - Does not take critical approach
 - Indifferent to the reader

Cover letter

- One page concise summary
 - What studied, how, why important, what you found, implications
 - Why study/findings relevant to journal
 - How is it a good fit
 - Can suggest reviewers
 - And those not to send it to
- Can be first and last thing editor looks at
 - Frames everything that follows
 - Don't skimp

Submitting

- Get reader feedback before you submit
 - Title and abstract; tables; text
- Come in under maximum # of words
 - If 3000, give them 2500
 - In journals, space is all
 - Shorter is spicier, longer is boring
- Submit all necessary materials
 - Keep complete copies and backups
- Expect them to acknowledge receipt MS
 - Don't contact them for 6 months

All articles need to be revised

- Most need to be revised twice
 - Some need extensive revising
 - May be reviewed a second time
- You don't have to do what reviewers ask
 - But you have to make strong case why not
 - Reviewer 'not getting it' sign of unclear writing?
 - Can be rejected after all requested revisions made
- Rejection hurts, but everyone experiences it
 - It's part of the game, especially when starting out
 - Learn what you can from it

Be optimistic

- Quality work will find quality journals
 - They need you more than you need them
- Writing is hard work but fun
 - And makes you clarify your thinking
 - Become a reviewer
- Remember this is very human process
 - Kindness, cooperation, patience are key
 - Don't be discouraged
 - Always have Plan B
 - And a Plan C

Resources

- AIs for 3500 health-life science journals
 - <http://mulford.meduohio.edu/instr/>
- Authorship, MS uniform requirements
 - www.icmje.org
- INASP journal writing packet
 - <http://www.inasp.info/psi/resources.shtml>
- Mayfield Handbook of Technical and Scientific Writing
 - <https://mit.imoat.net/handbook/home.htm>
- www.endnote.com
 - Countway offers 2 levels of instruction
