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Informal Question-and-Answer Session

Topics for Today

- Publishing a Journal Article
- Writing Effectively in English About Science
- Resources for Continuing to Develop Your Scientific-Communication Skill
- Preparing Poster and Oral Presentations
- Preparing Grant Proposals
- Some Concluding Items

Publishing a Journal Article

Deciding What (or When) to Publish

- Some factors to consider: quality of the work, extent of the work, interest to others
- Suggestions:
  - Seek guidance in this regard from others in your field who are more experienced in publishing journal articles.
  - Present your work orally first. Doing so can help in deciding whether the work is publishable and in shaping the paper.

Submitting the Paper

- Traditional submission (by mail)—now rare
- Electronic submission
  - Commonly via online submission system
  - Sometimes as e-mail attachment
- Inclusion of a cover letter (conventional or electronic)
- Completion of required forms

Some Categories of Editors at Journals

- Helpful to know because you might interact with each
- Main categories:
  - Editor-in-chief (and sometimes associate editors etc)—concerned mainly with content
  - Managing editor(s)—concerned mainly with administration of the journal
  - Manuscript editor(s)—improve the writing and maintain a consistent style

Initial Screening by the Journal

- For appropriateness of subject matter
- For compliance with instructions
- For overall quality (sometimes)

Peer Review

- Evaluation by experts in the field
- Purposes:
  - To help the editor decide whether to publish the paper
  - To help the authors improve the paper, whether or not the journal accepts it

The Editor's Decision

- Based on the peer reviewers' advice, the editor's own evaluation, the amount of space in the journal, other factors
- Options:
  - Accept as is (rare)
  - Accept if suitably revised
  - Reconsider if revised
  - Reject

Revising a Paper

- Revise and resubmit promptly.
- Indicate what revisions were made.
  - Include a letter saying what revisions were made. If you received a list of requested revisions, address each in the letter.
  - If requested, show revisions in Track Changes.
- If you disagree with a requested revision, politely explain why in your letter. Try to find a different way to solve the problem that the editor or reviewer identified.

Answering Queries

- Queries: questions from the manuscript editor
- Some topics of queries:
  - Inconsistencies
  - Missing information
  - Ambiguities
  - Other
- Advice: Respond promptly, politely, and completely yet concisely.

Reviewing Proofs

- Proofs: typeset material to check
- Review the proofs promptly.
- Some things to check:
  - Completeness (presence of all components)
  - Accuracy (absence of typographical errors in text and references)
  - Placement of figures and tables
  - Quality of reproduction of figures
- Note: This is not the time to rewrite the paper.

A Final Step: Celebrate Publication of Your Paper!

Writing Effectively in English about Science

Some Aspects of Writing Style

Style for Research Writing: General Guidelines

- Write simply and directly.
  - Readers should notice mainly the content, not the language.
  - Remember: Many readers don't have a strong background in English. And almost all readers are busy.
  - As stated earlier: Write to communicate, not to impress.
- Follow instructions (and conventions) regarding structure.

Style for Research Writing: General Guidelines (cont)

- If appropriate, use subheadings to guide readers.
- Organize information carefully at all levels.
- Provide overviews before details.
- In general, avoid very long paragraphs.
- In general, avoid very long sentences.
- Use mainly simple sentence structures.

Style for Research Writing: General Guidelines (cont)

- Where possible, use common words.
- Define terms that might be unfamiliar to readers.
- In general, use only standard acronyms.
- Remember to define acronyms.
- Write concisely.
  - Saves space
  - Helps readability

Writing Readably: A Brief Exercise

- Using simple, common words
  - attempt→ fundamental→
- Deleting needless words
  - red in color→ totally destroyed→
- Condensing wordy phrases
  - at this point in time→ in the event that→
- Using verbs, not nouns made from them
  - produce relief of→ provide an explanation→

Writing in English about Research

The Essentials

- The essentials are **content**, **organization**, and **clarity**.
- If a paper has excellent content, is well organized, and is clear, it is likely to be accepted even if the English is so-so.
- If a paper has poor content, is badly organized, or is unclear, it is likely to be rejected even if the English is excellent.

Cultural Differences to Consider

- Directness of expression?
- Amount of detail?
- Attitudes toward time?
- Attitudes toward using material taken from others' writing?
- Other?

English-Language Challenges for Native Speakers of Some Languages

- Verb tenses
- Prepositions
- Articles (the, a, an)
- Sentence structure
- Sentence length
- Other
- (Which, if any, of these apply to your situation?)

Some Strategies

- Compiling lists of words and phrases commonly used in your field
- Writing simply
- Having people with a strong command of English review your drafts
- Other

Continuing to Strengthen Your Writing: Some Strategies and Resources

Some Strategies for Strengthening Your Writing

- Read, read, read.
- Write, write, write.
- Teach others about research writing.
- Be a peer reviewer.
- Join (or form) a journal club.
- Join (or form) a writing group.
- Other

Some Resources

Some Resources Mainly for Non-Native Users of English

- UsingEnglish.com (www.usingenglish.com)
- Academic Phrasebank (www.phrasebank.manchester.ac.uk)
- Scientific English (set of lessons accessible through www.authoraid.info/resource-library/china-medical-board-program-resources/cmb-lessons-in-scientific-writing/folder_contents)

Some Other Useful Resources

- Getting the Most out of Words, from *Editing and Publication: A Training Manual* (available at www.authoraid.info/resource-library/Editing%20and%20Publication-Chapter%202.pdf/view)
- OneLook Dictionary Search (www.onelook.com)
- Grammar Girl (grammar.quickanddirtytips.com)
- *The Elements of Style* (www.bartleby.com/141/)
- Designing Conference Posters (colinpurrington.com/tips/academic/posterdesign)

Publishing Your Research 101

Video Series from the American Chemical Society

Books on Research Writing

Some Examples

- *A Short Guide to Writing about Chemistry,* by Holly B. Davis, Julian F. Tyson, and Jan A. Pechenik, 2010
- *Write Like a Chemist: A Guide and Resource,* by Marin S. Robinson and others, 2008
- *The Art of Scientific Writing : From Student Reports to Professional Publications in Chemistry and Related Fields,* 2nd edition, by Hans F. Ebel, Claus Bliefert, and William E. Russey, 2004
- *The ACS Style Guide: Effective Communication of Scientific Information,* 3rd edition, edited by Anne M. Coghill and Lorrin R. Garson, 2006
- *How to Write and Publish a Scientific Paper,* 7th edition, by Robert A. Day and Barbara Gastel, 2011

AuthorAID at INASP (www.authoraid.info)

- A project mainly to help researchers in developing countries to write about and publish their work
- Major components
  - Workshops
  - Openly accessible content, including a resource library and blog
  - Online community, including mentors
  - Grants: workshop, travel, course attendance

Joining AuthorAID

- Optional (can access almost all of the content without joining)
- Benefits—opportunities to
  - Be a mentee or mentor
  - Contact other AuthorAID members
  - Take part in the e-mail discussion list
  - Be informed by e-mail when new blog posts and resources appear on the AuthorAID website

AuthorAID: A "Meta-Resource"

Exercise

- Please break into groups of about 4.
- Identify points presented thus far today that will be most useful for you to remember.
- State and discuss any questions you have about the lecture material.
- Be ready to present some main points and questions from the discussion.

Preparing Poster Presentations and Oral Presentations

Overview

- Obtaining chances to present
- Preparing and giving poster presentations
  - It is expected that Dr John Clough will present the material on poster presentations, using slides that will be available separately. For reference, the AuthorAID slides are provided as part of the current slide set.
- Preparing and giving oral presentations

Obtaining Chances to Present

- Unsolicited invitations
- Submission and peer review of abstracts
  - Sometimes abstracts of proposed presentations
    - may be longer than abstracts of journal articles
    - may include one or two figures or tables
  - Of course, follow the instructions.
  - Write abstracts readably, especially as reviewers are busy.

Poster Presentations

Planning a Poster

- Choose a narrow enough topic. (Here “salami science” or “cucumber science” might be OK.)
- Plan to present only highlights.
- Obtain and carefully follow instructions.
- Select images that present key messages and attract viewers.
- Plan to include little text.
- Plan to make the poster understandable on its own.

Organizing a Poster

- Organize the poster logically (example: Introduction, Methods, Results, Conclusions).
- If the poster has a “landscape” format, place the content in about 3 to 5 vertical columns.
- Include plenty of white space.
- In general, don’t include an abstract.

Preparing a Poster: The Title

- Keep the title fairly short.
- Perhaps try to make the title attention-grabbing.
- Use large enough type (at least about 2.5 cm, or 1 inch, high).
- Normally, don't use all capital letters. (DON'T USE ALL CAPITAL LETTERS.)

Preparing a Poster: The Images

- Use images (photographs, flow charts, graphs, etc) that both attract and inform.
- Keep the images simple, so they can be quickly understood.
- In general, use graphs, not tables.
- Make the images large enough.
- Remember to label each image.
- Use color effectively.

Preparing a Poster: The Text

- Keep the text brief.
- Make the type large enough to read easily.
- Where feasible, use bulleted or numbered lists rather than paragraphs.
- If paragraphs are used, keep them short.
- Include your contact information.
- Proofread the text carefully.

Presenting a Poster

- Don't be shy.
- Think ahead about questions you might be asked.
- Perhaps ask some questions.
- Take advantage of the chance for feedback.
- Take advantage of the chance to network.

Presenting a Poster (cont)

- Have business cards available.
- Consider having handouts.
- Consider having people sign up for further information.
- If you'll write a paper about the work presented, keep in mind comments and questions from the poster session.

Some Resources

- "Designing Scientific Posters" by Colin Purrington (posted at http://colinpurrington.com/tips/academic/posterdesign)
- "Better Posters: A Resource for Improving Poster Presentations" (blog at http://betterposters.blogspot.com/)

Oral Presentations

Preparing an Oral Presentation

- Obtain and carefully follow instructions.
- Include much less detail than in a paper to publish.
- Stick to the main idea.
- Give the presentation a beginning, a middle, and an end.
- If feasible, structure the presentation largely as a story.

Preparing a Presentation (cont)

- Remember: People must be able to understand what you say as you say it. Therefore, for example:
  - Pace the presentation carefully.
  - Repeat important points.
- Minimize use of abbreviations/acronyms.
- In general, prepare notes, not a full text.

Preparing Slides: Some Guidelines

- At most one slide per minute, on average
- One theme or idea per slide
- Simple and uncrowded
- Thus, usually no published graphs/tables
- Bullet points (not paragraphs) for most text
- Large enough lettering to read

Compare this slide and the previous one.

In general, do not average more than one slide per minute. Limit each slide to one theme or idea. Keep slides simple and uncrowded. Thus, beware of using published graphs and tables. In general, use bullet points (not paragraphs) for text. Make sure all lettering is large enough to read.

Rehearsing the Presentation

- Time the presentation carefully.
- Try to make the presentation slightly shorter than the allotted time.
- Perhaps rehearse for others.
- Perhaps have others ask you questions.

Coping with Stage Fright

- Note that a little nervousness can help you perform well.
- Realize that people will attend to hear the content, not to judge your speaking style.
- Prepare well, but don't over-prepare.
- Exercise a little.
- Beware of too much food, water, or caffeine.

Coping with Stage Fright (cont)

- Hide physical signs of anxiety.
- Realize that a presentation need not be perfect to be excellent.

Giving the Presentation

- Arrive early.
- Make sure audiovisuals are working.
- Speak slowly enough.
- Speak clearly.
- Look at the audience.
- Show enthusiasm.
- Avoid distracting habits.

Answering Questions

- Lay the groundwork for relevant questions (for example, by stating in your talk some items that people can ask about).
- Perhaps have the moderator or a colleague to ask the first question.
- Briefly repeat each question.
- Keep answers brief.

Answering Questions (cont)

- If you don't know an answer, say so. Perhaps
  - offer to find out,
  - suggest how to find out, or
  - see if someone present has the answer.
- If a question seems irrelevant, offer to answer it later, or move to a related item.
- If a question is hostile, answer politely and briefly; perhaps offer to talk later.

Answering Questions (cont)

- Make note of questions. Use them to help shape future presentations and publications about the work.

Exercise

- Please break into groups of about 4.
- Identify the most useful points to recall from the lectures on presentations.
- On the basis of the lectures, identify at least one improvement to make in a poster or oral presentation you have given.
- Be ready to present some items from the discussion.

Applying for Grants

- A Brief Introduction
- Preparing to Apply for a Grant
- Writing a Grant Proposal—Components and Advice

Applying for Grants: A Brief Introduction

Seeking a Possible Match: Two Approaches

- Identifying something you wish to do and then seeking a suitable funding source
- Looking for a *request for proposals* in your field and then developing a proposal that meets the criteria
- (Note: Sometimes a request for proposals has another name, such as *call for proposals* or *program announcement.*)

Key Advice on Preparing Proposals (to be discussed more later)

- Seek a funding source well matched with your goals.
- Start preparing your proposal early.
- Gather plenty of information.
- Follow the instructions carefully.
- Prepare a detailed, realistic budget.
- Write readably.
- Revise, revise, revise.

Evaluation of Grant Proposals

- Typically, committees evaluate proposals.
- These committees generally contain experts in the field of work. Sometimes they include others too.
- Often, these committees both
  - Determine which proposals are acceptable
  - Determine which proposals are best (because not enough money is available to fund all acceptable proposals)

Following Up

- If your proposal is funded, doing and reporting on the work
- If you are invited to revise and resubmit the proposal, proceeding accordingly
- Otherwise, deciding how to proceed (Note: Even if your proposal is not funded, you may receive feedback that can help in preparing future proposals.)

Preparing to Apply for a Grant

Finding Suitable Funding Sources

Potential Sites of Funding: Some Sources of Ideas

- Colleagues, mentors, and administrators
- Grant offices at some institutions
- Acknowledgments etc in journal articles
- Published or posted announcements (calls for proposals)
- E-mail lists in your field or at your institution
- Published or posted guides
- Internet searching

Looking for a Good Match

Seek funding from entities

- With goals that are consistent with what you want to do
- That tend to give grants of the size you are seeking
- If possible, with programs that match your intended work

* * * Note * * *

Consulting a program officer at the potential funding source can be very helpful.

Reviewing the Literature: A Foundation for a Proposal

Some Reasons to Search the Literature When Writing a Proposal

- To help determine and document the need for what is being proposed
- To help see what work already has been done and thus what remains to be done
- To identify approaches to consider using in the proposed work
- To see what funding sources others used
- Other

Some General Suggestions

- If appropriate, use more than one database.
- Consider asking librarians for guidance.
- Keep good records of what you found, so you can easily cite it.
- Consider using reference management software (for example, EndNote, RefWorks, or Zotero).
- Accurately present the cited content. (Note: Your peer reviewers are likely to know the literature. And they might be the authors of some of the works cited.)

Accessing Relevant Literature

- Many articles, even in journals that are not fully open access, are openly accessible through journal websites.
- Resources from INASP increase developing-country libraries' access to journal content.
- Articles of interest sometimes can be found in institutional and other repositories.
- Authors' websites sometimes contain articles or links to them.

If all else fails . . .

- If you want a paper or chapter but can't obtain it a usual way, perhaps contact the author. Many authors are willing to share copies of their work.
- Also consider contacting the journal editor. Editors of small journals might be especially willing to help.
- If you still can't obtain the item, consider contacting an international colleague who might have access to it. For example, an AuthorAID mentor might be able to help.

A Few Examples of Resources

- African Journals OnLine (AJOL): http://www.ajol.info
- Other "Journals Online" Collections: see http://www.inasp.info/file/4fd988568504d4bcfa2f4cd855a07d45/jols.html
- Directory of Open Access Journals (DOAJ): http://www.doaj.org
- Google Scholar: http://scholar.google.com
- PubMed: http://www.ncbi.nlm.nih.gov/pubmed

Making Other Preparations

Starting Early

- Even a short proposal can take a long time. Therefore start early.
- For large grant proposals, it can be advisable to begin at least 6 months before the deadline.

Analyzing Instructions, Examples, etc

- Carefully review materials from the potential funding source.
- Consult the program officer, if appropriate.
- If possible, look at examples of successful proposals to the funding source.
  - From colleagues
  - From the program officer
  - Published or posted

Doing the Groundwork

- As noted, review the literature on work related to yours. Be prepared to cite it.
- Start developing a persuasive explanation of why the proposed project is valuable.
- If your proposal will be for research, formulate one or more well-defined, potentially productive hypotheses or research questions. Beware of proposing a project that is unrealistically large.

Assembling Collaborators

- If you want others to join the project team, invite them. Ask them for needed items, such as information and CVs.
- If you want outside participants, such as consultants, invite them. If appropriate, obtain CVs and letters of support.
- Consider including a writer or editor on the grant-preparation team.

Establishing Timelines

- Especially if you're preparing a large proposal, draft a schedule for doing so. Include time for institutional approvals, if needed.
- Consider preparing a timeline (such as a Gantt chart) for the proposed project. Indicate dates on which you plan to start and finish each main part of the project.

Gathering Budgetary Information

- Start identifying items that you'll ask the funding source to pay for.
- Start determining the cost of each.
- If your institution will contribute resources, identify them, and determine how much they are worth.

Doing Other Items

- If advisable, do preliminary studies.
- If appropriate, consider sustainability.
- If required, submit a letter of intent or a letter of inquiry ("pre-proposal").
- Other?

Writing a Grant Proposal: Components and Advice

Grant Proposals as Persuasive Writing

Proposals must persuade potential funders that

- the goal of the proposed work is worthwhile
- the goal is relevant to the funder's mission
- the proposed approach is sound
- the staff is capable of doing the work
- adequate facilities will be available
- the requested amount of funding is reasonable
- other?

Some Items That Help Make a Proposal Persuasive

- Inclusion of reasons for choices (for example, of techniques, sample sizes, durations, consultants, venues)
- Inclusion of supporting evidence (for example, published findings, preliminary data, calculations, CVs, letters of agreement)
- Competent writing (helps show capability)

Some Common Sections of Proposals

- Background information
- Statement of goals
- Research plan or program plan
- Budget
- Information on qualifications of staff
  (for example, resumes, CVs, or biosketches)

(Note: Depending on the requirements, proposals can range from one page to many pages.)

Some Other Items Sometimes Included

- Letter of transmittal (cover letter)
- Title page
- Abstract
- Table of contents
- Lists of tables and figures
- Description of predicted impact
- Evaluation plan
- Plan for disseminating results
- Information on facilities
- Reference list

Appendixes

- Optional to include
- Examples
  - Papers accepted but not yet published
  - Letters of support from potential collaborators
  - Additional details about activities planned
- Remember: Reviewers typically are not obligated to look at appendixes.

Titles and Abstracts

- Short but important
- Provide the first impression
- Sometimes used in choosing peer reviewers
- Help administrators and reviewers grasp the essence and importance of the work
- Also remind reviewers about what they have read in the proposal
- Should be clear and concise
- Give them the time they deserve!

Advice on Writing the Proposal

Writing the Proposal

- **Read the instructions carefully, and follow them exactly.**
- Match the technical level of the proposal to the background of the reviewers.
- Remember to include the 5 Ws and an H: who, what, where, when, why, and how.
- Include reasons for your choices.

Writing the Proposal (cont)

- Write the proposal readably. For example
  - Organize the writing carefully.
  - Present overviews before details.
  - Use simple, common wording where possible.
  - Avoid wordy phrases.
  - Make effective (but not excessive) use of such devices as headings, boldface, and italics.

Writing the Proposal (cont)

- Include a carefully prepared, realistic budget.
- If relevant, include a timeline.
- If relevant, include tables and figures.
- If the proposal will include an abstract, devote special care to it.
- If the potential funder has forms to use, complete them carefully.

Writing the Proposal (cont)

- If part or all of the proposal will consist of freestanding text, format it readably
  - Standard typeface
  - Large enough type and margins
  - Unjustified (ragged) right margin unless otherwise requested
- Have others review drafts of your proposal.
- Double-check that instructions were followed.
- Carefully follow instructions for submitting the proposal (often done electronically).

An Excellent Abstract of a Proposal

Some Resources

- Proposal Writing Short Course (from the Foundation Center; available in 6 languages): http://foundationcenter.org/getstarted/tutorials/shortcourse
- Writing Your [Grant] Application: http://grants.nih.gov/grants/writing_application.htm
- Grand Challenges Canada Proposal Development Resource (http://www.grandchallenges.ca/proposaldevelopment/)
- AuthorAID: http://www.authoraid.info

Exercise

- Please break into groups of about 4.
- Identify points on grant application that will be most useful for you to remember.
- State and discuss any questions you have.
- If you brought materials regarding grants, discuss them in the context of the lecture.
- Be ready to present some main points and questions from the discussion.

Concluding Items

- Workshop Evaluation
- Closing Remarks
- Presentation of Certificates