

## **My approach for writing proposals and everything else**

A great project idea and a close alignment of that idea with the funding program's mission are imperative for success of a grant proposal, but so is the clarity of the writing. A proposal author's aim should be to make the text so logical and easy to follow that the reviewer feels smart and has a positive emotional experience while reading it. Reviewers and program officers often have many proposals to read and evaluate in short timeframes, and they are easily turned off if a proposal requires too much mental work.

Most humans can readily absorb, retain, and appreciate new information in the form of stories. Stories often begin with characters who are on an important mission, often to find or accomplish something that will solve a problem or settle a conflict. A good story sets up suspense and then holds the reader's attention through various adventures until the problem is resolved. In a proposal, the opening should grab reviewers' attention with an important problem or question, acknowledge previous efforts and progress, then focus on a specific gap in knowledge or limitation of previous work, to establish the reader's expectations for what is coming. The rest of the proposal tells why the PI's idea for filling that knowledge gap or overcoming that limitation is the very best path forward and convinces reviewers that the proponents have a clear plan, appropriate expertise, and access to all the tools they need to succeed. The proposal should specify precisely what will become possible after successful completion of the project that has not been possible before.

Composing a beautifully written proposal that will impress reviewers requires one to imagine standing in the shoes of reviewers who are very busy and may or may not be intimately familiar with the topic. The text should provide plenty of "road signs," so the reader can easily stay on the path and become convinced that the proposed work is the best way toward resolution of the stated problem. While it is easy to recognize clear, logical text when one encounters it, writing it is quite challenging. Such writing is done by putting pieces of information in the optimal order for the reader, providing subtle and sometimes not-so-subtle reminders about important information in just the right places, crafting strong topic sentences that create expectations that the following sentences fulfill, and placing the most important ideas in positions of emphasis within sentences, paragraphs, and sections. Plain, clear language usually makes the reader's experience more pleasant, while too much jargon can alienate reviewers who do not use those terms every day or who are a bit removed from the sub-sub-discipline of the PIs.

Crafting my own proposals according to these principles has helped me land all but one of the proposals on which I have been lead PI or significant Co-I on the first submission. I apply the same strategy to everything I write, including papers, talks, and conference abstracts. The easier and more pleasant the reader's/listener's experience, the more likely they are to stay engaged, appreciate the content, cite the work, recommend the proposal, remember the talk, and form a positive impression of the authors.

## **My experience coaching others on writing:**

My coaching/editing experience comprises:

- (1) Close work with my own research students and postdocs (n=18) and with a few other graduate students and assistant professors in Earth science, environmental science, forestry, and biochemistry (2004-present)
- (2) Teaching two graduate seminars on writing and speaking skills at Indiana University (Spring 2018)
- (3) Teaching a graduate seminar with students from Biology, Chemistry, and Earth & Environmental Sustainability that combines paper discussions on a particular topic and coaching on writing and speaking skills (Spring 2023)

For the graduate seminars and with my own research students, I use a book that articulates well what I do in my own writing. The book is [\*Writing Science\*, by Joshua Schimel](#). The students read selections from the book, try some of the exercises in there, and work on a short-format proposal about their own thesis project. At the end of the 2018 course, we held a mock NSF review panel meeting, with peer evaluation of the proposals according to the merit review criteria from NSF by two sub-panels, followed by ranking of proposals in each sub-panel by the students in the other.

Other bits of evidence that I can proofread and copyedit with a hawk's eye:

- New Mexico State Spelling Bee champion, 1981 (competed in National Spelling Bee)
- 4-time champion of adult spelling bees in Bloomington, Indiana
- 3-time champion of adult spelling bees in Flagstaff, Arizona
- Strong training in grammar and sentence, paragraph, and essay structure all the way through middle and high school (Thank you, Mrs. Jones, Mr. Malley, Mrs. Melvin, Mr. O'Connor, Mr. Entwisle, Mr. Phillips, Mrs. Robertson!)