The Basics of Grant Writing

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About Me

- Grants Consultant for FSU Faculty

- Former Program Manager for Florida Office of Energy

- Received ~$17 million funding from US Department of Energy and Department of Agriculture

- Background in Alternative Fuel Vehicles, Renewable Energy, and Sustainability Policy/Programs

Agenda

- **The Players**
  - The Funders
  - The Reviewers
  - The Applicant
- **The Planning**
  - Ideas
  - Finding funding
  - Timeline
  - Outline
- **The Proposal**
  - Questions to answer
  - SMART goals
  - Budgeting
  - Rules and Regulations

GOOD IDEAS DO NOT GET FUNDED

GOOD IDEAS
THAT ADVANCE THE FUNDER'S AGENDA
GET FUNDED

The Funders

- "Select projects that will enable us to achieve our goals"
- Your project must be a good fit for the funder's priorities.
- You must understand these priorities BEFORE you start writing a proposal.
- Look at:
  - Funder's Website (About Us, Priorities, History, etc.)
  - Strategic or Annual Reports
  - Speeches/Presentations by Top Officials
  - Previous Awards or Awardees
  - The Funding Opportunity Announcement

The Reviewer's

- Two Types of Reviewers:
  - Type 1: Works for the Funding Agency
    - Motivation: Select projects that have a high likelihood of achieving the funding agency's priorities, and make their organization look good.

  - Type 2: Volunteer or "Voluntold"
    - Motivation: "Let's get this over with, but do a good job"

- Reviewers (usually):
  - Are not experts in your *specific* area of research
  - Have to read a lot of proposals in a relatively short time
  - **Form an opinion on the first page and look for reasons to validate that decision**

The Applicant

- Motivation = "$$$$$$$$$$"
- This is a sales pitch, you are selling yourself/your research
- You need to **convince** the reviewers, and the funder, that your idea:
    1. Is viable and has intellectual merit
    2. Fits the funder's agenda and goals
    3. Is better than the other proposals submitted

The Planning

By failing to prepare, you are preparing to fail.

- Ben Franklin

Find Funding

- Pivot
  - Searchable database of public and private funding opportunities
  - Set up saved searches
  - Find collaborators
  - Contact Kate Herron (kherron2@fsu.edu) with any questions
- Office of Proposal Development
  - OPD farms out targeted, external funding opportunities
    - Based off of your Pivot profile
      - Keep your Pivot profile up-to-date
  - Council on Research and Creativity
    - Internal, "seed" funding
  - More on OPD website under "Funding Opportunities"

Read the Funding Opportunity

- **Are you eligible?**
- When is it due?
- Who is the Program Officer?
  - Do you know them, or have you talked to them before?
- How many awards will be made?
- What is the maximum award amount?
- Is cost-share required?
- **Is it a limited submissions program?**
- **Read the description specifically for the kinds of projects they are looking for**

Read and Understand the Review Criteria

- Will be listed either in the funding opportunity, or on the funder's website

- Can't write a proposal until you know what you'll be graded on

- **Write with the intention of providing certain lines that can specifically fulfill certain criteria**

Identify Collaborators

- Is this a 1-person project, or do you need a team?

- Have you worked with someone before who would be a good fit for this project?

- Do you want to participate in a team, but not necessarily lead?

- Is this an FSU FOCUS Program?
  - If so, add your name to the interested parties list on OPD's website

Identify Necessary Resources

- Do you have (or need) preliminary data?

- Do you have the necessary equipment for the project?

- How will you meet cost-share requirement?

- If it is a team project, would you like OPD coordinating assistance?

- Have you identified an editor?

Other Considerations

- Start as early as possible
  - Some programs are offered at relatively consistent intervals (e.g. due dates every May)
  - Other programs issue a "Notice of Intent" several months prior to the funding opportunity.

- Is this the RIGHT opportunity for you?
  - Have you published any papers on this topic?
  - Do you have a history of funding with this agency?
  - Do you have the time to commit to writing a good proposal?
  - Do you have the time to commit to conduct the project?

The Proposal

Heilmeier's Catechism

- Series of questions attributed to former DARPA program manager George Heilmeier.

- Every proposal, regardless of agency, needs to answer these questions.

#1: What are you trying to do?

2: How is it done today, and what are the limits of current practice?

#3: What's new in your approach and why do you think it will be successful?

#4: Who cares? If you're successful, what difference will it make?

#5: What are the risks and the payoffs?

#6: How much will it cost? How long will it take?

#7: What are the midterm and final "exams" to check for success?

SMART Project Metrics

- **Specific**: Clear and focused to avoid misinterpretation. Should include assumptions and definitions and be easily interpreted.
- **Measurable**: Can be quantified and compared to other data. It should allow for meaningful analysis of progress.
- **Attainable**: Achievable, reasonable, and possible under conditions expected (i.e. budget and timeframe).
- **Relevant**: Fits with the project's overall theme.
- **Timely**: The work is doable within the performance period of the award.

- **Not SMART**: This project will examine middle and high school teachers to see how they learn, what influences their teaching, and will use the results to help them be better at their jobs.

- **SMART**: This project will conduct a statewide survey of 1,047 mathematics teachers and 35,304 students in 6th through 8th grades in 201 middle schools, and case studies of eight middle schools in Missouri to address the following research and educational objectives: 1) examine the nature of mathematics teachers' opportunity to learn for instructional improvement, 2) examine how work contexts influence the quality of teacher learning opportunities, 3) examine the impact of teacher learning opportunities on changes in student mathematics achievement over four years, and 4) work with district and school administrators to promote instructional improvement and student achievement by effectively providing learning opportunities to mathematics teachers.

Commonly Recommended Changes

1. Don't Title the Proposal like a Publication Article

- Titles should be:
  - Clear
  - Concise
  - "Active"
  - Interesting

- A good title makes the proposal more memorable

- Especially important for proposals to private foundations
  - Think about what would "look good in the news"

Example

A general presentation on the mechanics of proposal preparation with a secondary specific focus on the National Institutes of Health

vs.

The Basics of Grant Writing- NIH

2. The "What are you doing?" Statement

- The proposal should state within the first paragraph exactly what you are proposing to do

- Many people give in-depth backgrounds of the problem which build up to the reveal of their proposed solution
  - Good for novels, bad for proposals

- Lead with the solution, then explain why the problem is important

3. Reduce Reviewer's Cognitive Burden

- No "big" words when "small" words will do
  - Elucidate= No
  - Explain= Yes

- Avoid run-on sentences because they make it more difficult to read without providing any additional information or they try to string together loosely related thoughts into one less clear one much like this sentence does.

- Use bold type, bulleted points, and graphics to call attention to key points

4. If you have a point, make it

- **Avoid ambiguity at all costs**
- **Tell them exactly what you want them to think**
- **Don't ever leave it up to the reader to decide what you mean**

Bad

"The results of our experiment are shown in figure 1."

"Based on our preliminary data, the next step in the project is clear."

"I will work with my collaborator to complete the project"

5. Don't Neglect the Non-Research

- Project Management Plans
- Education/Outreach Plans
- Deliverables
- Team Qualifications

- **A poor job on any of these can be the difference between equally good research proposals**

6. Don't Neglect the Non-Narrative

- Proposals also require additional documentation beyond the project narrative

- Biosketches/CV's, letters of support, equipment and facilities descriptions, data management plans, post-doc mentoring plans, etc.

- These will take longer than you think to collect and format

- **Not completing these as instructed can get you rejected without review**

Budget

- Ask for exactly what you need
  - If you "pad" the budget with extra expenses, reviewers will call you on it
  - If you ask for too little, reviewers will question if you can accomplish your tasks

- Make sure to budget for all tasks
  - "How are they going to do it if they don't have any money?"

- Work with your department/college financial staff to complete the budget according to the funding opportunity's instructions.

The Process

- Make sure that your proposal follows FSU's internal process for submission to the funding agency.

- If the project involves Human Subjects, Animal Subjects, or Hazardous Material at all, you must contact the correct office to obtain approval.

- Proposal's are due to Sponsored Research Administration or the Research Foundation at least 3 days prior to the funding agency deadline.

Questions?

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