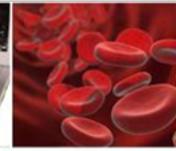# Do This... Not That

Tips on AISL Proposal Preparation

Alicia Santiago, Lori Takeuchi, & Bob Russell
November 3, 2021

AISL, Division of Research on Learning, EHR

Deck contents

- Dos and don'ts from AISL program officers Bob Russell, Lori Takeuchi, and Alicia Santiago

- Reasons for "return without review"

- The NSF review process

- Know your audience

- Formatting tips

- Reasons proposals are rated non-competitive

- About broader impacts

- Other things to avoid

- Need help?

Bob's tips

DO: Tell a story with your proposal. Combine evidence with illustrative anecdotes or illustrations/photos.

DO: Build the logic of your design. Show how research/theory informs your research question/methods and provides the rationale for participant experiences.

DO: Provide vignettes or in some way describe participant experiences in your project. The experiences are: (1) the "lab" for your research;(2) shows how your project rationale is enacted; and (3) helps tell your story.

DO: Make your narrative interesting to read, maybe even a learning experience.
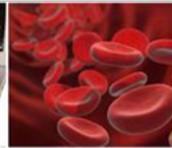
Alicia's tips

DO: Draft your 'Project Summary' first. This will allow you to get your initial ideas onto the paper and give you something tangible to work from. The 'Project Summary' is critical for leaving reviewers with a good first impression!

DO: Use a visual/systematic way to present your project to help reviewers visualize the entirety of it (e.g., logic model).

DO: Maximize the readability of your proposal.

DON'T: Ignore the Proposal & Award Policies & Procedures Guide (PAPPG). It is your best friend while working on a proposal!

Lori's tips

DO: Write out your research questions!

DO: Clearly illustrate how your research questions map to the desired outcomes of your project (e.g., theory of change, diagrams are useful)

DON'T: Feel obligated to address every single AISL priority.

DON'T: Submit your proposal on the deadline date. Aim to submit 1 to 2 days before the deadline.

DO: Watch [recordings](#) of the AISL program office hours on preparing proposals (e.g., budgets, research questions)

Common reasons for return without review

- Violation of formatting rules of the PAPPG (font, margins, page length, etc.)
  https://www.nsf.gov/pubs/2013/nsf13127/nsf13127.jsp

- Resubmission too closely resembles a previous submission to <u>any</u> NSF program

- Failure to address intellectual merit and broader impacts in project summary and description

- Including unauthorized appendix or other supplementary material (e.g., letters of support exceed language specified in PAPPG)

- Including URLs/website links in project description

- Failure to include Data Management or Postdoc Mentoring Plans (if budget includes postdoc)

Know your audience

AISL reviewers come from a wide mix of communities:

- Scientists
- Education researchers
- Informal education practitioners (museums, media, science outreach programs, etc.)
- University administrators
- Nonprofit sector

Unlike reviewers recruited for other NSF programs, they are not just academics.
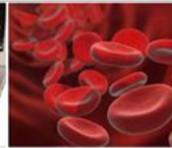
Know your audience

Pay close attention to how you present information to diverse reviewers. Avoid:

- Overly academic writing (e.g., passive voice, long sentences)

- Arrogant or overconfident tone, which may be off-putting to some reviewers

- Jargon, specialized language

Use a reviewer-friendly format

- Use the same section headers as those used in the solicitation

- Use formatting to set apart sections (e.g,. bold, underline) and leave sufficient blank space

- Clearly structured texts are less overwhelming for readers

- Include figures, diagrams, and tables as appropriate

- Don't mess with fonts and margin to squeeze more in; just write more succinctly

Can lead to cognitive overload

# Reasons proposals are rated non-competitive

Framing

- Proposed problem not seen as nationally important
- Weak, vague, or no connection to STEM content
- Relevant literatures not cited
- Weak or no theoretical framework

Methods

- Inadequate or inappropriate research design
- Vague or inappropriate data collection and analyses
- Too much data being collected

Other

- Appropriate expertise not represented on team
- Cost at smaller scale prohibitive when scaled up
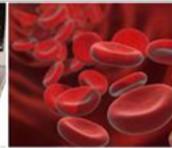
Broader impacts

- Do not discount the importance of Broader Impacts as a review criterion
- Broader impacts means more than having diversity among participants or locating a project in a area where there are diverse populations
- Consider other underrepresented groups, including those with disabilities and English Language Learners
- If the Solicitation-specific Criterion of Broadening Participation is a goal of your project, explain exactly how:
  - Does proposal identify characteristics and needs of targeted underrepresented groups to be served?
  - Does it include specifics plans or strategies for addressing or accommodating particular needs of participants of these groups?

Program officers suggest you avoid

- Ignoring requirements stated in the solicitation or the PAPPG

- The "trust me" approach: Be sure to provide citations or evidence for critical assertions made

- Overselling yourself or your project; take a neutral tone and let the evidence speak

- Pages of general, vague, or rambling narrative without precision and details

- Overemphasis of rationale for the project at the expense of methodology and details of what will actually be implemented
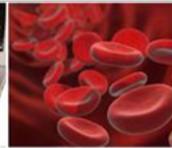
Need help?

- General inquiries regarding this program and program solicitation should be made to DRLAISL@nsf.gov

- What should you do if you have a specific inquiry regarding your project or proposal?

  – Send a brief (max 2 pages) summary of the research or R&D you are planning to conduct to the email address above. The synopsis should include a very brief rationale for the work, how it will contribute to the knowledge base on informal learning, and what you believe the broader impacts to be. Be sure to also include your specific questions.