

## Helpful Tips to Developing a High-Quality Proposal



**Generate an idea and seek mentorship**



**Read NSF calls for proposals carefully for alignment**



**Foster relationships with potential collaborators and partners**



**Engage the research support staff and create a timeline and plan for completing the proposal and budget**



**Write a concept paper and seek feedback from NSF program officers, and professionals with diverse training backgrounds**

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## Broadening Participation: A Model for Developing the Next Generation of Principal Investigators



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**CONVENING**

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The Center for Integrative Research in Computing and Learning Sciences (CIRCLS) is a community-based hub for NSF-funded researchers who explore and investigate technologies that will be available to learners in 5-10 years.

Advancing equity is a core goal in this research: emerging technologies create a potential for dynamic supports that meet learners' varying personal, community, and context-centered needs.



*CIRCLS supports the Research on Emerging Technologies for Teaching and Learning (RETTL) program area for NSF.*

## Model to Develop Next Generation of Education Researchers

### I. Set the Objective

- **Identify the Need:** Broaden participation in education research, especially in areas involving emerging technology.
- **Set Clear Goals:** Equip early career researchers and practitioners with content, knowledge, and skills to navigate grant proposal process.

### II. Identify Target Audience

- **Emphasize Diversity:** Ensure representation of various backgrounds, expertise, and experiences.
- **Establish Primary Focus:** Early career researchers and practitioners.

### III. Compile Resources

- **Source Sample Grant Proposals:** Ideally identify proposals that reflect the variety commonly found in actual grant applications (funded & non-funded examples).
- **Prepare Review Criteria:** Utilize National Science Foundation's merit review criteria for consistency.

### IV. Train Using Mock Review Protocol

- **Familiarize with Process:** Walk participants through the steps they will undertake during the mock review.
- **Clarify Review Criteria:** Emphasize intellectual merit and broader impact, ensuring participants can identify these in sample proposals.

### V. Conduct the Mock Review

1. **Individual Review Phase:**
  - Provide participants with sample grant proposals and give them sufficient time to read and make preliminary evaluations.
2. **Group Calibration & Discussion:**
  - Facilitate group discussions, guiding mock review panelists to refine their evaluations and cite evidence in proposals based on review criteria to arrive at ratings

### VI. Gather Feedback to Iterate

- **Gather Participant Feedback:** Reflect on mock review process.
- **Iterate on Mock Review Model:** Adjust the process based on feedback to ensure its continuous enhancement.

### VII. Implement & Apply

- **Identify Opportunities:** Pinpoint real-world scenarios or spaces where the mock review process can be beneficial.
- **Support Real-world Application:** Encourage participants to use their newly-acquired knowledge for actual grant proposals.

### VIII. Offer Ongoing Support

- **Mentorship Programs:** Pair early career researchers with seasoned grant applicants for guidance.
- **Provide Additional Resources:** Offer materials, workshops, and PD sessions that further demystify the grant application process.

### IX. Measure & Share Impact

- **Track Outcomes:** Monitor the success rate of mock review participants in real-world grant applications.
- **Disseminate Learnings:** Share the model, protocol, and outcomes at conferences, through publications, or in workshops.