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

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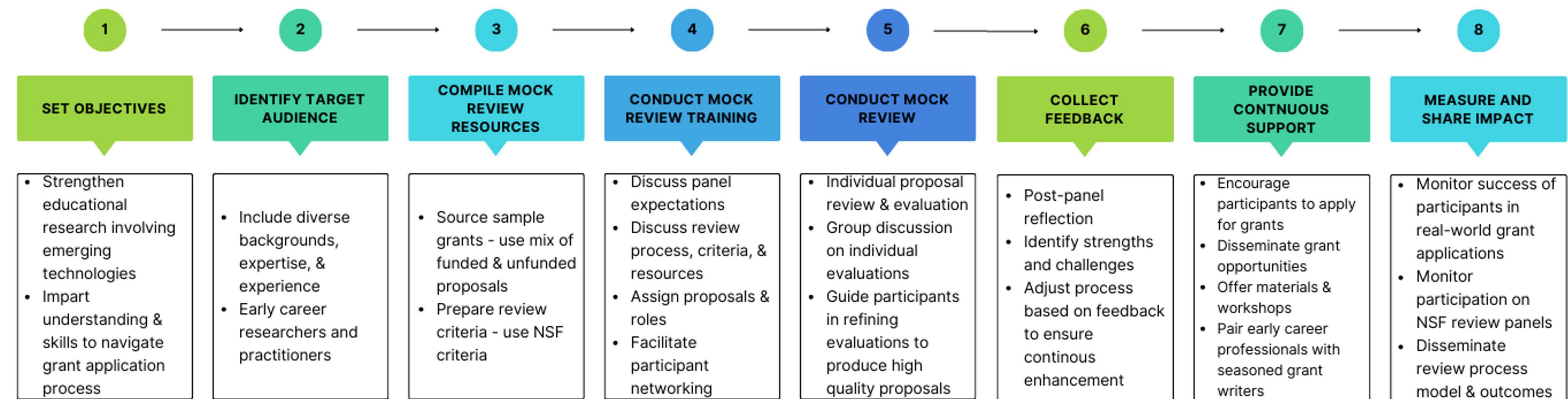
INTRODUCTION

In response to a need to build capacity and representation in education research involving emerging technology, we present a model through which groups of practitioners and early career researchers acquired firsthand experience with reading, reviewing, and evaluating grants aligned with National Science Foundation's review criteria. This model of holding a mock review panel consists of a set of protocols that may be easily replicated to equip and diversify the pool of the next generation of principal investigators. The protocols structures dialogue to calibrate the community around evaluating sample proposals based on their intellectual merit and broader impacts. The elements of the mock review process are outlined in this poster. Through focused efforts to demystify the grant application process for early career researchers and practitioners, it is possible to expand the diversity of research teams and thereby impact the who is doing research, the types of methodologies employed, and the range of topics of studies being proposed in the field.

CONTEXT AND FRAMEWORK

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. With an equity-based approach to broaden participation in research, CIRCLS sponsors a mock review process that (1) provides professional development for emerging and early career scholars about the panel review process and good proposal criteria; (2) facilitates networking among panel participants; and (3) invites new people into the community who have not been represented as a funded PIs previously.

MOCK REVIEW PROCESS

1 — SET OBJECTIVES
- Strengthen educational research involving emerging technologies
- Impart understanding & skills to navigate grant application process

2 — IDENTIFY TARGET AUDIENCE
- Include diverse backgrounds, expertise, & experience
- Early career researchers and practitioners

3 — COMPILE MOCK REVIEW RESOURCES
- Source sample grants - use mix of funded & unfunded proposals
- Prepare review criteria - use NSF criteria

4 — CONDUCT MOCK REVIEW TRAINING
- Discuss panel expectations
- Discuss review process, criteria, & resources
- Assign proposals & roles
- Facilitate participant networking

5 — CONDUCT MOCK REVIEW
- Individual proposal review & evaluation
- Group discussion on individual evaluations
- Guide participants in refining evaluations to produce high quality proposals

6 — COLLECT FEEDBACK
- Post-panel reflection
- Identify strengths and challenges
- Adjust process based on feedback to ensure continous enhancement

7 — PROVIDE CONTINUOUS SUPPORT
- Encourage participants to apply for grants
- Disseminate grant opportunities
- Offer materials & workshops
- Pair early career professionals with seasoned grant writers

8 — MEASURE AND SHARE IMPACT
- Monitor success of participants in real-world grant applications
- Monitor participation on NSF review panels
- Disseminate review process model & outcomes

ESSENTIAL ELEMENTS OF MOCK REVIEW PANEL

- Establish community norms for a respectful panel
- Assign lead/scribe for each proposal review
- Reviewers read proposals and write reviews prior to panel convening
- Each reviewer completes the proposal review worksheet
- Lead/scribe summarizes proposal
- Each reviewer provides proposal strengths and weaknesses beginning with then scribe
- Lead/scribe takes notes on the discussion
- Assign each proposal a rating
- Assign each proposal a funding category
- Lead/scribe writes summary of discussion

IMPACT

The mock review panel protocol has the potential to broaden participation of the research community by disrupting the cycle of who gets selected as proposal writers and redefining 'who gets to do research.' This process provides a window into the process and review criteria for high-quality proposals, a 'seat at the table' for groups of diverse individuals to share ideas and perspectives, and a mirror so that a new generation of researchers and practitioners have way to view themselves as principal investigators. Revealing the inner workings of a panel in this way is a non-threatening, highly engaging, and participatory approach to inspiring future researchers.

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RESOURCE

https://bit.ly/circls23_mock_panels

ACKNOWLEDGEMENTS