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Successful Funding Proposals

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Office of Research Development



Three Phases of Funding Success

1. Capture Planning
2. Proposal Planning
3. Proposal Development



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Doing your homework

CAPTURE PLANNING



“**Capture Planning** is the process of identifying opportunities, assessing the competitive environment, and devising winning strategies oriented towards winning a specific funding opportunity.”

(Shipley Associates Capture Guide v. 3.0, 2014)



FSU | OFFICE OF RESEARCH

ABOUT ▾ RESOURCES ▾ SERVICES ▾ LIMITED SUBMISSIONS COLLABORATIVE COLLISION ▾ COUNCIL ON F

Tools and Resources to Locate Funding

Finding Funding

Presented by the FSU
Office of Research
Development (ORD)

The ORD Finding Funding Module

The Office of Research Development is happy to provide this unique module for those who may be new to applying for funding, or may be unaware of resources available at Florida State University. Please click on the garnet box below to begin this training.

Go to the Funding Module ↗

Get started on your funding search with Pivot, an easy-to-use

Identifying Funding Opportunities

[Finding Funding 101](#) | [Finding Funding Module](#)



Improved Position: Understanding likely competitors and devising strategies to enhance their weaknesses and demonstrate your strengths

Unknown Position:
Finding an opportunity and submitting a proposal



Known Position: Aligning your goals with the funders, and connecting with funding agency representatives



Favored Position: Building long-term relationships with funding agencies by demonstrating successful projects and participating in strategic planning workshops.



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Do this *first*

PROPOSAL PLANNING



Proposal Checklist

Understand EXACTLY what is required

“Shred” the RFP by reading line by line developing a checklist of each requirement

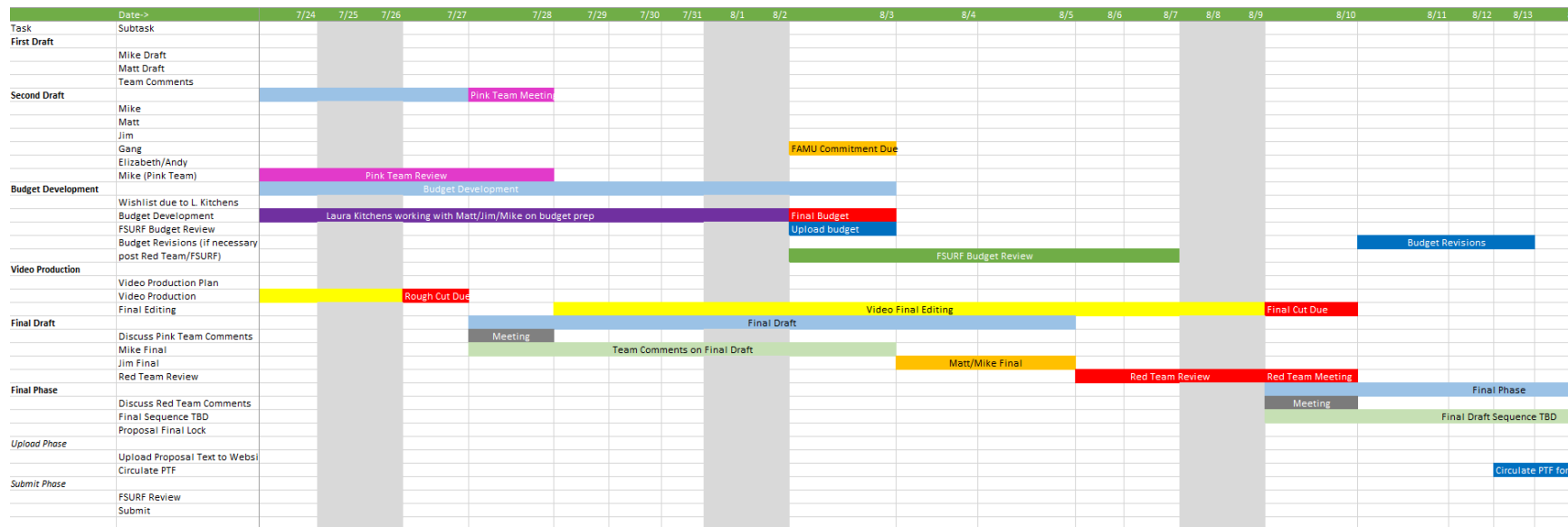
Every question, every request for description, every “shall”, “will”, “must”, “should” gets its own checklist item.

NSF ADVANCE Adaptation Proposal Checklist (All items pertain to 15-page project narrative section)		
Item/Section	Must Contain	Note
Introduction		
	Executive summary-type paragraph	
	What are the project's goals/objectives?	Prefer bullet list or identifiable sections
	Which NSF ADVANCE objectives will the project meet?	Refer to "Program Description" section of RFP
	How will progress on these objectives be reported to NSF?	High level, further specify in evaluation section.
	Are the project's goals tied to any other high level NSF strategic initiatives (i.e. 10 big ideas?)	
Intellectual Merit		Standard NSF merit review criteria
Broader Impacts		Standard NSF merit review criteria
Intersectionality		RFP specific additional merit review criteria
	What are the salient categories of social identity for both underrepresented STEM faculty and majority STEM faculty that will be involved in the project?	
	How are these categories characterized in data collection and analysis?	
	How are these categories considered in designing project implementation?	
	How are these categories considered in project evaluation?	
Organizational Context, Data, and Problem Analysis		
	What available data and literature have been analyzed to understand the underlying reasons for the equity problems we are addressing?	
	Present relevant data regarding gender equity/intersectionality in STEM at FSU	(Table/Figure?) Specify that the included data was curated based on the NSF ADVANCE Indicators toolkit
	How (and by whom) was this data collected?	
	How (and by whom) was the data analyzed?	
	What are the team's conclusions based on this data?	(setting up proposed interventions)
	What systemic issues does this data suggest are present at FSU?	
	Discuss relevant literature, with aim of specifically justifying each proposed intervention	i.e. structure this roughly analogous to the proposed activities structure



Proposal Schedule

Work backwards from proposal due date to establish a timeline



Developing and sticking to a proposal schedule decreases stress and anxiety, increases your ability to ask for help, and ultimately increases proposal quality.



Features, Benefits and Themes

- **Features:** Separate aspects of your proposed project (e.g., methodology, research direction, etc.)
- ***Discriminators:** Features that you have, that no one else has.
- **Benefits:** The ways in which your Feature solves a buyer's problem.
- **Proposal Themes:** Statements that specifically connect a feature with a benefit.

People buy
benefits, not
features.



Examples of Theme Statements

“We focus on features associated with writing— rather than exclusively on the phonetics and semantics of specific graphemes—to make the most of limited data.

This groundbreaking method allows us to craft a more robust understanding of the emergence of writing, contextualize its developmental processes within the rich visual culture of Mesoamerica, and place these Mesoamerican systems into conversation with larger global theories on the origins of writing in early civilizations.”

“This project seeks to pilot a novel pedagogical framework that builds communication and collaboration skills in individual researchers as a means of building more effective teams. Essentially, we aim to build better teams by building better team members, thus enhancing the team’s ability to generate transformative research questions. “

Feature + Benefit= Theme



Proposal Outline and Content

- If an agency (or RFP) specifies or suggests an outline, you **MUST** follow that outline
- If none is specified, try to find a successful example proposal and follow that outline
- If all else fails, follow Heilmeier's Catechism:
 1. What are you trying to do?
 2. How is it done today, and what are the limitations of current practice?
 3. What's new in your approach, and why do you think it will be successful?
 4. Who cares? What difference will this make?
 5. What are the risks?
 6. What are the mid-term and final checks for success?



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PROPOSAL WRITING



EAGER GERMINATION: Collaborative Communication: Enhancing transformative inquiry through structured team development

Introduction

All teams—research or otherwise—are built on a foundation of effective communication. Researchers who seek to first understand, before being understood, are essential to building strong interdisciplinary research teams that can think more creatively, take greater intellectual risks, and ask the transformative research questions needed to address society's most important challenges.

This Germination project, co-led by research development, evaluation, climate science, and instructional design experts, seeks to **pilot a novel pedagogical framework that builds communication and collaboration skills in individual researchers (faculty and postdocs at Florida State University) as a means of building more effective teams.** We will focus on STEM researchers seeking to solve the climate crisis, an incredibly complex problem that suffers from unique interdisciplinary communication challenges.

Actionable climate change research requires that information be unconfined by disciplinary boundaries, consider decision-relevant time scales, involve end-users early and iteratively in the research process, and be considerate of use cases in multiple sectors. Thus, **producing actionable climate change research requires teams made up of individuals with effective communication and collaboration skills.**

Unfortunately, these skills are often not prioritized in STEM disciplines, particularly in graduate school and at early career stages when publications and the allocation of funding take precedent over most other skill development. Climate change research teams occasionally include science communicators, boundary runners, or social scientists to support creating actionable information. However, actionable information is more likely to be produced when multiple team members possess these skills, and integrate their use throughout the research, development, and dissemination process.

Proposed Approach

Our project builds upon the highly successful Collaborative Collision interdisciplinary networking program developed by the PI. Since 2016 this program has had over 800 participants, but it currently addresses only *one* barrier to interdisciplinary research—connecting potential collaborators. The proposed approach instead *begins* with connections and then *continues* by fostering team growth through communication and collaboration training. Our pedagogical approach is grounded in successful research communication practices and teaches skills needed to effectively collaborate in teams focused on creating actionable information. **Essentially, we aim to build better teams by building better team members, thus enhancing the team's ability to generate transformative research questions.**

We begin with a revised Collaborative Collision networking event, centered around a climate challenge presented by a nationally relevant speaker familiar with its societal impact. This challenge statement gives participants a direction in which to frame their thinking and provides a bias toward active and purposeful conversations. Through these conversations, participants will identify individuals with whom they would be interested in collaborating and form groups for the next phase: Collaborative Incubator.

Collaborative Incubator is a series of team-formation sessions spread over the course of an academic semester. During Incubator, teams will build active listening skills, develop a common language, understand the societal challenge through the end-user's perspective and according to their timelines, and communicate the importance and benefits of their work to both other researchers and the public.

Expected Outcomes

Our goal is to enable and support societally relevant and transformative research efforts at FSU. We will accomplish this by training individuals and teams and building capacity by (a) enhancing their science communication and project planning skillsets, and (b) guiding their project and team development. These outcomes will be evaluated on (a) measured growth in participants' and teams' self-assessed efficacy in interdisciplinary science communication and project execution, and (b) assessment of individual and team-level generation of scientific knowledge. With respect to efficacy, participants will be asked at the time of application to self-assess their skills with project development, research collaboration (including mentorship, management, and leadership), publication of empirical findings, scientific communication, and grant writing. They will be asked to rate themselves on these indices as individuals on a semesterly basis. Following formation of their teams, assessments will include a module using the same scale but instead rating the efficacy of the team. Participants will receive semi-annual reports on their individual and team perceived skill growth, to facilitate their development in impactful interdisciplinary germination of science. The evaluation will also measure intermediate and longer-term indicators of research productivity from participants' annual accomplishments in research dissemination (manuscripts, public communication, and policy briefs), research proposals submitted and funded, and the sustained collaboration of participants on these outputs. As such, we will be assessing the capacity building success of the project on two levels: (1) individual researchers and (2) research teams.

Potential for Success, Sustainability and Scaling

The proposed approach is ambitious but achievable, given its leveraging of existing programs and uniquely positioned leadership team. Collaborative Collision is a long-running program that has been ingrained in FSU's institutional culture, with each event typically attracting 50+ participants. Our approach builds upon this by using a novel combination of evidence-based strategies to reach an existing audience who has already demonstrated an interest in interdisciplinary work. **Though the initial program focuses on climate research at FSU, it is easily replicable in other topic areas, and/or scalable to include researchers at other institutions.** In particular, we plan to scale locally with Florida A&M University in the near future, as well as broadly by leveraging FSU's connections to the National High Magnetic Field Laboratory, the Mayo Clinic, and Oak Ridge Associated Universities, among others.

Project Team

The project team is led by Mike Mitchell (PI, Program Design and Implementation), Strategic Initiatives Manager in the Office of Research Development; Dr. Lara Perez-Felkner (Co-PI, Evaluation), Associate Professor of Higher Education and Sociology; Dr. Kassie Ernst (Co-PI, Climate Research/Education), Teaching Faculty at the FAMU-FSU College of Engineering; and Dr. Robert A. Reiser (Co-PI, Instructional Design), Associate Dean for Research, Distinguished Teaching Professor, and Robert M. Morgan Professor of Instructional Systems in the College of Education. **This model ensures that the program will be sustained by institutional leadership, with Germination funds serving as the catalyst to develop and implement a more rigorous program than would otherwise be possible.** The PI is uniquely positioned to lead this effort having developed Collaborative Collision and built significant partnerships throughout FSU's leadership and faculty which will be leveraged to scale and sustain the program. Finally, his prior experience with the State of Florida Office of Energy included multiple projects funded by the Department of Energy and Department of Agriculture in collaboration with research teams at Florida universities, making him ideally suited to assist teams in understanding and collaborating with research end-users.

Bold, italicize, and/or underline key points



Present Your Ideas Simply

The more simply an idea is presented, the more understandable and credible it is to readers. “Big” Words obscure meaning and increase the mental resources necessary for reading comprehension.

Examples of “Big” Words and Phrases:

- “ This project will **elucidate** the theory of science”
- “...activity allows students to **experience visual impressions** of a working lab”
- “**At the present moment in time we would like to call attention to the fact that**”
- “**More specifically,...**”



Avoid Grandiose Language

Grandiose language is hard to support and is often subjectively applied.

Instead, be as specific as possible about expected outcomes.

Examples of Grandiose Language:

- “The proposed project will **revolutionize** the field of science”
- “The proposed research represents a **total paradigm shift**”
- “This research will **solve climate change and end world hunger**”
- “**With this single \$100k grant, I will...**(lists tasks that would require \$1M)”



Be Specific

Bad

1. “Based on this prior research, the next step is obvious.”
2. “Once Process A has been completed, we will then begin work on Process C”
3. “The results of Process A are shown in Table 1.”
4. “We expect our work to yield important results.”
5. “We will work with our partners to complete the project”

Good

1. “Based on this prior research the next step is (state the next step)”
2. “Once Process A is complete, we will begin Process B, which leads to Process C.”
3. “The results of Process A are shown in Table 1. These results mean...”
4. “We expect our work to yield (specific results), important because (importance)”
5. “We will conduct process A, while our partners will conduct process B.”



Use Graphics Appropriately

- Charts show relationships/flow between ideas
- Graphs show data correlations, trends, comparisons, etc.
- Photos show realism, or tangibility
- Illustrations convey specific features/details while removing confusing details
- Maps/drawings show relationships and scale
- Tables emphasize the absolute value of numbers.

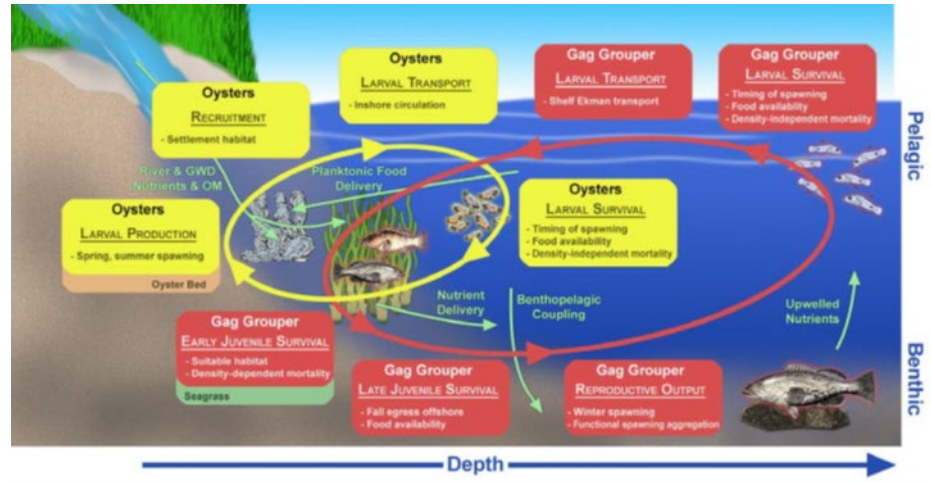


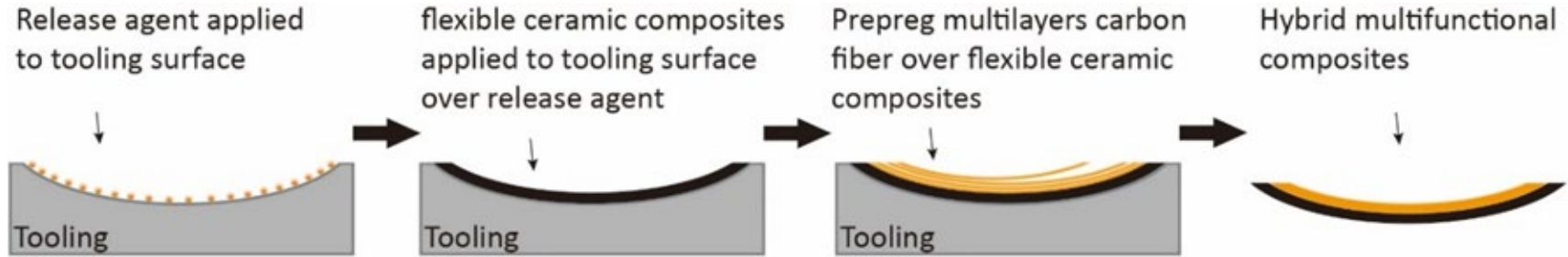
Figure 1. Schematic of interactive pathways of abiotic and biotic factors of fish in the Gulf of Mexico

Graphics draw readers attention, and increase their understanding and retention of content



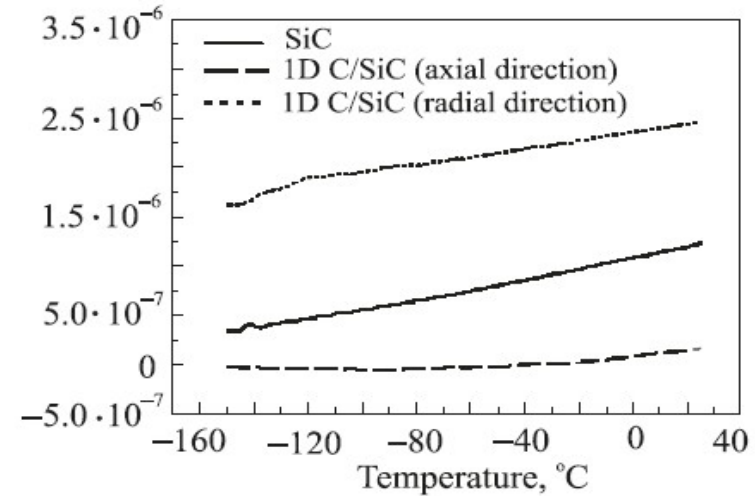
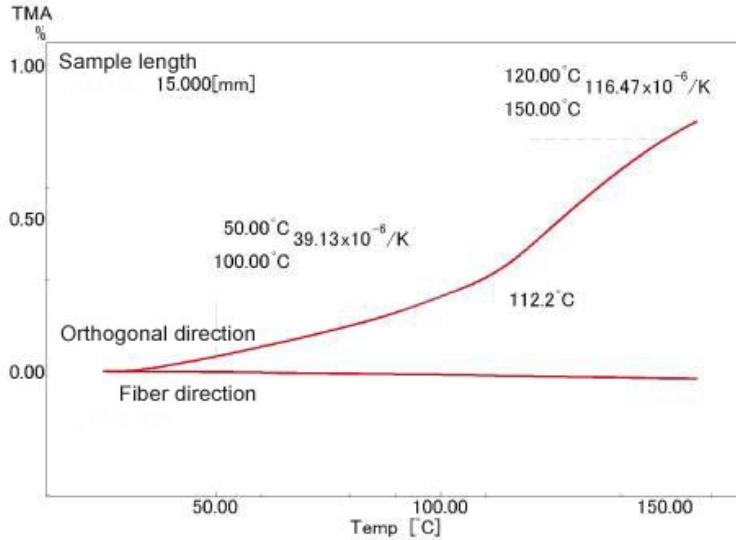
Captions Not Labels

Captions interpret the visual and provide the connection between the features and benefits



Label: Figure 1. The proposed co-curing lay-up procedure

Caption: Figure 1. The co-curing lay-up procedure bonds a ceramic composite layer to the outside surface of CFRP composites. This results in stronger, yet lighter, structural components for use in advanced aeronautical applications.



Label: Figure 1. Coefficient of thermal expansion (CTE) for CFRP Composites (left) vs SiC composites (right).

Caption: Figure 1. Coefficient of thermal expansion (CTE) for CFRP Composites (left) vs SiC composites (right). Our CFRP composite demonstrates a lower CTE, resulting in less expansion at high temperatures.

Materials with low CTE are necessary to enable next-generation supersonic aircraft.



Don't Use Graphics Inappropriately



Figure 1. The Gulf of Mexico



Figure 1. Advanced Aeronautical
Applications



Proposal Structure

Science was first studied by the Ancient Greeks, and since then has evolved to.....

(long explanation of the field of science with many citations)

The proposed project will add to the field of science by....

The proposed project will add to the field of science by....

This is an important advancement in the field of science because...

Science was first studied by the Ancient Greeks, and since then has evolved to.....

(Concise* explanation of the field of science with most important and relevant citations)

(*enough to let them know that you know what you are talking about, and that what you are proposing to do is supported by prior research)

People tend to best remember the FIRST and LAST things they read.
The proposal should state within the first paragraph exactly what you are proposing to do.



Write Specifically to Review Criteria

**Always read and understand
the proposal review criteria
before you start writing.**

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DSA
DUS
CRC Submissions Portal
Frequently Asked Questions
Time Extension & Budget Amendment Requests
FAT Submission Form
Forms
CRC Workshops
Important Dates
CRC Policies
Members & Meeting Dates
CRC Submissions Portal Tutorials
CRC Program Statistics

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> G. Research Compliance

> H. Proposal Submission Process

▼ I. Proposal Review Process

- FYAP proposals are reviewed by the CRC members. Scores are compiled and reviewed by select members of the CRC who form the FYAP Review Subcommittee; the Subcommittee will make funding recommendations, as well as rewrite recommendations, to the full CRC.
- Reviewers will use these [review guidelines](#) for scoring the proposal.
- Each reviewer will provide "blind" electronic feedback, not just a numeric score, which will be shared with the PI. Reviewer identification will not be released to the PI.
- If the outcome from the initial review is that a proposal text requires additional work, the PI may rewrite the proposal based on the reviewer comments. Rewrites must include a one-page paper addressing the reviewers' comments, along with the revised proposal and/or budget. Revised proposals will be evaluated a second time by the same reviewers; if the reviewers determine their comments have not been appropriately addressed, the proposal will not be funded.
- The CRC makes final funding decisions based on the funding allocated to the program, the number of proposals received, and merit scores of each proposal. Proposals that fail to meet CRC standards will not be funded.**
- If awarded, the PI and Department Chair/Director must sign the CRC Conditions of Award form and return it to the CRC Program Coordinator prior to award budget activation. Any research compliance items must also be approved prior to award activation.

> J. Required Post-Award Activities

> K. Award Terms & Conditions

> L. Grant Close-Out

> M. Payback



Project/Issue and Goals

Reviewer Criteria:

“Is the project/issue the project will address important/significant in the PI’s area of research?”

Your Proposal:

“(Insert topic) is an important area of research in (PI’s field) because....”

Research Methods/Activities

Reviewer Criteria:

Are the research methods and/or creative activities appropriate in light of the goals/objectives of the project?

Your Proposal:

“The proposed methodology was selected because...”

“These methods are appropriate to address the project goals because...”



Broader Impacts

Reviewer Criteria:

“Is the project clearly related to the PI’s long-term research goals?”

Your Proposal:

“ The PI’s long-term research goals are.....This proposed project helps to fulfill those goals by....”

Differentiation from Dissertation

Reviewer Criteria:

Is the proposed project a substantive departure from or modification of the PI’s dissertation work?

Your Proposal:

“ This proposal represents a substantive departure from my dissertation by....”

My dissertation (title of dissertation) focused on X. The proposed project focuses on Y (or X+1).”



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.



Supporting Documents

- Proposals also require additional documentation beyond the project narrative, including:
 - 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.



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Questions?

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