DEVELOPING SUCCESSFUL PROJECT MANAGEMENT PLANS FOR LARGE PROPOSALS

RESEARCH AND FACULTY DEVELOPMENT
FACULTY SUCCESS SEMINAR SERIES

Kendra Mingo, MA, CRA
Senior Proposal Development Specialist
Office of Research and Faculty Development

Zoom participants: Please keep your microphone muted until the Q&A session

Please note that this session is being recorded
OFFICE OF RESEARCH AND FACULTY DEVELOPMENT

- We provide proposal development assistance across the spectrum*.
- Meet goals in the UI strategic plan – grow research and creative efforts across all disciplines.
- Reach out to request service – uidaho.edu/orfd

*Not including budget preparation

All services are optional and are granted on a first come, first served basis.
HELP US IMPROVE OUR SEMINARS

After the Q&A session: brief 3 question sli.do poll

- On a scale from 1-5, how helpful was this seminar?
- What did you like most about this seminar?
- How can we improve this seminar?

www.slido.com or use the sli.do app (Use code #FSS)
FACULTY SUCCESS SEMINARS
Let Us Be Your Guide Through the Proposal Development Process

JOIN US IN IRIC 305
12:30 P.M. - 1:30 P.M. PT

Can’t join us in person? Then join us live via Zoom: uidaho.zoom.us/j/798224314. Each seminar will be recorded and be available on our website.
OBJECTIVES

IN THIS SESSION, WE WILL DISCUSS:

- Project Management Plans – definitions, organization
- Introduce Collaboration Planning – connections to team science and large proposal development
- Review Collaboration Plan components and considerations
- Share tools and resources
- Connect Collaboration Plans to Project Management Plans
PROJECT MANAGEMENT PLANS

- May vary widely by program type and funding agency
- Makes a compelling case that a funded project will be consistently and carefully managed and will meet the sponsor’s expectations
- Demonstrates that PIs will function as effective and efficient stewards of an agency’s research investment

ADMINISTRATIVE CORE SECTION

Project Leadership Plans for Multiple PI Grant Applications

Purpose: Address administrative processes and PI responsibilities

- Program Roles and responsibilities
- Fiscal and management coordination
- Decision making process for scientific direction
- Allocation of resources
- Data sharing and communication
- Publication and intellectual property
- Procedures for resolving conflicts

PROJECT DESCRIPTION

Purpose: Describes how project and collaborations will be managed

- Program Roles and responsibilities
- Project Management tasks
- Approaches to integrate research
- Communication & coordination mechanisms
- Project activities, milestones and timeline
- Data Management (separate section)
PROJECT MANAGEMENT PLANS

How these are often constructed:

1. PI is the primary writer and architect
2. Developed along with other supplementary documents
3. Proposal guidelines used as a checklist

- Roles and responsibilities
- Project activities, milestones, and timeline
- Often uses standard institutional language
COLLABORATION PLANNING APPROACH


https://doi.org/10.1007/978-3-030-20992-6_45
Chapter authors were chairs or members of NITRD Subcommittee on Team Science

Developed Collaboration Planning Framework with input from numerous federal agencies

Potential use to enhance federal application process for team science grant initiatives
COLLABORATION PLANNING

WHAT, WHY:

- Roadmap to facilitate effective team formation and functioning
- Assess and enhance team readiness
- Demonstrate effective team organization to funding agencies
Collaboration Planning

What, Why:

Team Science – Potential to achieve complex and sophisticated research goals

Team Science – Unique costs related to management of large complex teams

Collaboration Plan – Presents roadmap for effective team functioning
COLLABORATION PLANNING

WHAT, WHY:

Team Science

- Internal facing - Project
- External facing - Proposal

Collaboration Planning Framework

Project Management Plan
# How to Write a Collaboration Plan

<table>
<thead>
<tr>
<th>Component</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Rationale for Team Approach & Configuration | - Determine why a team approach is necessary to meet the project goals.  
- Describe why the team configuration meets the proposed research objectives (e.g., how each team member uniquely contributes). |

1. Collaboration Readiness

   - Provide evidence for the collaboration readiness of the project (e.g., team readiness, role assignment, etc.).
   - Ensure that the team members have the necessary skills and knowledge.
   - Provide a clear schedule for the collaboration activities.

2. Technological Readiness

   - Document the availability and planned use of technological resources.
   - Ensure that the necessary tools and software are available.
   - Specify the training needs for team members.

3. Team Functioning

   - Develop strategies to achieve specific goals.
   - Address potential challenges and obstacles.
   - Establish clear communication channels.

4. Communication & Coordination

   - Determine the effective communication channels.
   - Establish a clear communication plan.
   - Ensure that all team members are aware of the project goals.

5. Leadership, Management, & Administration

   - Ensure that the leadership and management approaches are appropriate for the project.
   - Establish clear roles and responsibilities.
   - Develop a clear communication plan.

6. Conflict Prevention & Management

   - Define the conflict prevention strategies.
   - Address potential conflicts and manage them effectively.
   - Establish a clear conflict resolution process.

7. Training

   - Develop a training plan for the team members.
   - Ensure that all team members have the necessary skills.
   - Establish a clear training schedule.

8. Quality Improvement Activities

   - Develop quality improvement strategies.
   - Establish clear quality improvement processes.
   - Address potential quality issues.

9. Budget & Resource Allocation

   - Allocate resources efficiently.
   - Establish clear resource allocation strategies.
   - Develop a clear budget plan.

---
COLLABORATION PLANS

TEN KEY COMPONENTS TO ADDRESS:

1) Rationale for Team Approach and Team Composition
2) Collaboration Readiness
3) Technological Readiness*
4) Team Functioning
5) Communication and Coordination
6) Leadership, Management, and Administration
7) Conflict Prevention and Management
8) Training
9) Quality Improvement Activities
10) Budget/Resource Allocation
1) RATIONALE FOR TEAM APPROACH

CONSIDERATIONS, TOOLS:

- Justify how a team approach, team size, and composition are required for scientific success, in light of complexity introduced by a large team.

- Answer these questions:
  - Why do the research questions and goals require a team approach?
  - Will the participating disciplines and fields be able to work together successfully to achieve the scientific objectives?
  - Why is this team size and expertise necessary to achieve the scientific goals?
2) COLLABORATION READINESS

CONSIDERATIONS, TOOLS:

- Provide evidence for the collaboration readiness of individual investigators, the team as a unit, and the institutional partners.
- For each institution, identify indicators of readiness, highlight potential challenges, and describe plans to address challenges.
- Document institutional resources, infrastructure, and policies that support collaboration readiness.

Tools to assess collaboration readiness:

- Team Diagnostics Survey (Wageman & Hackman, Harvard University)
- Collaboration and Team Science: A Field Guide (NIH NCI)
3) TECHNOLOGICAL READINESS
CONSIDERATIONS, RESOURCES:

Document the availability and planned use of technological resources to support both the scientific and collaborative process.

UI resources to support scientific processes:
- Central Catalog of Research Computing Resources
- Office of Technology Transfer
- Growing Team Research Community (IMCI, IBEST)

Support for collaborative processes:
- Comparison of research networking tools
- Collaborative platforms (e.g., HubZero, Trellis)
- Distributed Science - resources for science collaboration at a distance (UT Austin)
4) TEAM FUNCTIONING
CONSIDERATIONS, STRATEGIES:

Document strategies to be used to support and grow effective team functioning

Strategies:

- Creation of glossaries of key terms, summaries of key concepts to promote cross disciplinary understanding
- Creating shared vision, mission, and goals statements
- Visualizations of the scientific problem space
- Face-to-face meetings and interactions (virtually or in person)
- Annual strategic planning/advisory board meetings
- Surveys to reflect on team effectiveness and efficiency
- Periodic assessment of Collaboration Plans
5) COMMUNICATION & COORDINATION CONSIDERATIONS, EXAMPLES:

- Describe potential challenges to and plans for effective team communication (e.g., frequency, modality, method)
- Describe strategies to coordinate day-to-day operations and approaches
- Tools:
  - Toolbox Dialogue Initiative (Michigan State University)
  - TDI workshops
6) LEADERSHIP & ADMINISTRATION

CONSIDERATIONS, RESOURCES:

- Describes approaches used to facilitate the other components of the plan, as well as strategies for managing administrative and financial support for the project (e.g., recruitment, hiring, reporting, etc.)

- Things to consider:
  - Leadership approaches (e.g., hierarchical, heterarchical, transactional, etc.)
  - Leader Integrative Capabilities – skills and behaviors to bridge intellectual distance and enable knowledge sharing and integration
7) CONFLICT PREVENTION
CONSIDERATIONS, EXAMPLES:

Identify factors that may lead to conflict (e.g. data ownership, intellectual property rights, authorship order, etc.)

Describe strategies to prevent, manage, and resolve conflicts at the individual, team, and institutional levels.

Examples:
- Onboarding letters ([Bennett et al., 2014](#))
- Pre-collaboration agreement templates
- Center-level manuals of operations (Team Science Toolkit)
- Mediation Clinic Resources ([UI College of Law](#))
8) TRAINING

CONSIDERATIONS, APPROACHES:

- Outline training strategies to enhance scientific collaboration and integrate knowledge across disciplines
- Tailor trainings to the needs and characteristics of the team
- Map training goals, skills, approaches, formats, and expectations
- Things to consider:
  - Pedagogical approaches (e.g., problem-based, team-based, metacognitive)
  - Workshops, mentoring, coursework, journal clubs, collaborative writing retreats
  - Online tutorials and certifications (e.g., COALESCE - teamscience.net)
9) QUALITY IMPROVEMENT CONSIDERATIONS, EXHIBITS, RESOURCES:

Describe plans to facilitate reflection about team performance and how resulting information will be used for quality improvement.

Strategies and tools to assess team function:

- Use outside facilitators, evaluators to design and implement formative and summative assessment strategies
- Team Diagnostic Survey
- Collaboration Success Wizard (UC Irvine)
10) BUDGET/RESOURCE ALLOCATION CONSIDERATIONS:

Identify specific budget lines or items needed to support the activities included in the plan.
PROJECT MANAGEMENT PLANS

Use Collaboration Planning Approach to inform PMPs:

1. PI and team are architects and writers
2. Most useful if developed before the start of an initiative or in concert with proposal
3. PMP - subset of strategies from a more comprehensive Collaboration Plan
4. Proposal guidelines still used as a checklist
**TAKEAWAYS**

- **Large Teams**
  - Internal facing - Project
  - External facing - Proposal

Collaboration Plans - Roadmap to effective team formation and functioning

Project Management Plans - Present key points of more comprehensive Collaboration Plans for the funder

May see elements of Collaboration Planning approach represented in federal team science grant initiatives
RESOURCES

- University of Idaho Growing Team Research Community ([IMCI](https://imci.idaho.edu), Slack channel)
- International Network of the Science of Team Science ([INSciTS](https://iniscts.org))
- Comprehensive list of Collaborative Funding Mechanism ([NORDP](https://www.nordp.org))
- Enhancing the Effectiveness of Team Science ([NRC, 2015](https://www.nap.edu/content/58906))
- Collaboration & Team Science: A Field Guide ([NIH, 2010](https://www.nih.gov))
- COALESCE ([TeamScience.net](https://teamscience.net))
THANK YOU FOR COMING!

QUESTIONS?

BEFORE YOU GO...

Please take a brief 3-question sli.do poll
www.slido.com or use the sli.do app

Use code #FSS