How to Lead Research Collaborations

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Project Management

Leadership
- Building a Team
- Collaboration
- Consultants

Administration
- Budgets
- Subcontracts
- IRB/IACUC Resources

Dissemination
- Presentations
- Publishing
-- Reporting

Research Productivity
Collaboration

Finding Ways to Communicate Effectively on Grant Activity
Developing Effective Teams
Working with Experts
Anticipating Problems in a Proactive Way
**What is a Scientific Research Team?**  
*...think about it as a continuum...*

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<th>Investigator-initiated Research</th>
<th>Research Collaboration</th>
<th>Integrated Research Team</th>
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| Investigator works on a scientific problem – largely on their own and often with graduate student assistants and/or post-doctoral researchers | • Group works on a scientific problem, each bringing some expertise to the problem.  
• Each member works on a separate part, which are integrated at the end.  
• The interaction of the lead investigators varies from limited to frequent with regard to data sharing and brainstorming. | | • Team works on a research problem with each member bringing specific expertise to the table.  
• There are regular meetings and discussions of the team’s overall goals, objectives of the individuals on the team, data sharing, and next steps.  
• It is clear who has responsibilities for key leadership roles in achieving goals. |

Adopted from: Bennett & Gadlin, 2013, p. 17
# What is a Scientific Research Team?

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An NSF Collaborative Proposal in which two Universities each submit portions under a collaborative proposals. Each team is led by an independent PI with a specific set of discrete tasks within the PI’s expertise.

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A Davis Foundation Grant that includes collaboration among faculty from two colleges to reduce costs and improve learning of an interdisciplinary undergraduate program.

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Proposal Phase

- Roles
- Teams
- Communication

Topic 1: Types of Collaboration
- Who are you - Leader?
- What teaming types are effective for you?
- How are Team members productive

Start-Up Phase

Topic 2: Working With Experts
- Experts as team members
- Working collaboratively with experts

Operational Phase

Closure

Tools & Documents

Activities

Monitoring

Products
Who am I as a Leader?

- Communication Style
- Leadership Style
- Collaboration Style

**Take the Quiz**

**DISCUSS THE FINDINGS at your table**
The Problems with Experts

- Are overconfident in exceptional situations
- Often demonstrate a bias or fixedness toward habitual responses
- Tend to rely upon their expertise in neighboring yet different domains
- Often display a lack of creativity compared to beginners

The Opportunities of Expertise

Useful Prompts

- What added value could research from the humanities and social sciences/sciences have for your research?
- Why do you think that the task you propose to perform is optimal for solving the problem at stake?
  - Would an alternative be possible? Do you have doubts about the routes proposed by others?
- Of all the features of the problem under scrutiny (as perhaps represented in the figure), what does and does not make sense from your disciplinary perspective?
  - What is especially difficult to understand? What would you like to know more about?
What is a Grant? – One Perspective

• A Grant (from the University) is a contract with a funder.

• This means
  • The obligations described in the grant are obligations of the University that has taken funding
  • The University views the PI as having responsibility to meet those obligations – as written in the grant and contract

• For Collaboration This Means
  • Internal team members have specific responsibilities
  • External partners have specific responsibilities
  • The PI is responsible for ensuring that all of these responsibilities are met

• This also means that responsibilities should be clear, written, and agreed upon
Memorandum of Understanding for Collaborative Research

• A Memorandum of Understanding (MOU) sets the stage for a collaborative research project
  • Defines the purpose and structure of research partnership
  • Identifies project members
  • Clearly articulates roles and responsibilities
  • Describes project activities, timelines, and responsibilities
  • Describes products and associated responsibilities

• An MOU is not a contract, but rather a formalized agreement that serve as the foundation for research relationships
  • Codifies commitments proactively
  • Establishes a mechanism to resolve challenges
MOU at Proposal
Planning Preparation Roles and Process
**Proposal Phase**
- Personel
- Roles
- Teams
- Communication

**Start-Up Phase**
- PI
- Pre-Estab Set Up
- Revisions / Questions
- Award Notification
- Contract & Speedtypes
- Spending Procedures
- Hiring & HR
- GAs and GA Contracts

**Operational Phase**
- Annual Report
- Budget Management

**Closure**
- Final Report
- Budget Closeout

**MOU at Proposal**
- Planning
- Preparation
- Roles and Process

**MOU at StartUp**
- Hit the ground Running
- Clearly defined roles
- Clear responsibilities
- Plan for communication
- Clear activities
- Plan for monitoring

**Tools & Documents**
- MOU at Proposal Planning
- Preparation
- Roles and Process
**Proposal Phase**

- MOU at Proposal Planning Preparation Roles and Process

**Start-Up Phase**

- PI
- Contract & Speedtypes
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**Operational Phase**

- Annual Report
- Budget Management

- MOU in Operation
  - Process to review activities
  - Clear meeting procedures
  - Clear deliverables
  - Clear timelines
  - Process to resolve conflicts or challenges

**Closure**

- Final Report
- Budget Closeout
**Proposal Phase**
- Personnel
- Roles
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- Tools & Documents
- Activities
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- Products

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MOU at Closure
Completing Tasks
Final Reports
Dissemination
Next Grant
Personnel

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Communication
Tools & Documents
Activities
Monitoring
Products
Project Management Tools

- Project Management Tools (PMT) Can Organize All Project Activities
- Clear Tasks
- Used in a Weekly, Bi-Weekly, or Monthly “Agile Process”
- Provides Gantt Charts of Productivity
- Identifies “Blocks”
- Creates a No-personal system for review of work and activities
PMT

Reviewing and Discussing Tasks
PMT

GANNT Charts
Proposal Phase
- Pre-Estab Set Up
- Revisions / Questions
- Award Notification

Start-Up Phase
- Contract & Speedtypes
- Spending Procedures
- GAs and GA Contracts

Operational Phase
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Closure
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Personnel

Roles

Teams

Communication

Activities

Monitoring

Tools & Documents

Products

Backlog
- Final QA
- Forms submit data properly

Ready to do
- CSS/HTML validated
- Tracking codes inserted
- Format web copy into code

In progress
- CSS is optimized
- Sync with Google Analytics
- SEO keyword optimizations

Done
- Web copy drafted
- Sharing Icons updated and working
- Scripts and Images are optimized
**Topic 1: Types of Collaboration**
- Who are you - Leader?
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- How are Team members productive

**Topic 2: Working With Experts**
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**MOUs and Project Management Tools (PMT)**
1. MOUs to Plan
2. MOUs and PMT to Start Activities
3. MOUs and PMT to Implement Grant Work

**Roles and Teams**
- Pre-Estab Set Up
- Revisions / Questions
- Award Notification

**Monitoring**
- Contract & Speedtypes
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**Products**
- Annual Report
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- Final Report

**Case Studies**
1. Case Study 1
2. Case Study 2
3. Case Study 3
Case Studies

• Each group will be given a case study. Read the case study and respond to the issue (20 Minutes)

• Note your key ideas on poster boards

• Each table will have 2 minutes to report their key ideas to the whole group (20 min)

• Whole group discussion (10 min)

• Consider
  • Laurel – How did your group activity reflect aspects of Expertise
  • Martina – How did your group activity reflect aspects of Teaming and Leadership
What do I still want to know? (5 min)

• Please Fill Out the Two Types of Cards
  • Type 1 – General Comments or Questions
  • Additional Small Group Training Needs

• Evaluation Survey
Thank You

We will review the cards and follow-up. Please contact us if we can be of help on specific questions.
Additional Materials

• The Following Slides are related to additional materials associated with being a new PI
Project Leadership

• Defining goals
  • Reread your grant...it has been awhile
  • Remind yourself of your goals

• Have a team meeting
  • Invite co-investigators, consultants, research assistants and staff if already hired
  • Remind them all about what they agreed to and “kick off” the project
Managing your Grant

• Who does what?
  • Research
  • Administration

• Where do I get help for administrative tasks?
  • Department/College/School administrative support
  • Office of Post-Award Management (OPAS) [OPAM](#)
  • Research Accounting – Controller’s Office [Research Accounting](#)
  • Human Resource (Department/College/School/Central)
Award Process – Roles and Responsibilities

Award Workflow

• **Office of Post-Award Management (OPAM) and PI**
  • Award receipt (notification by email, or on sponsor website, or PI directly)
  • Review of award terms (with respect to terms that need negotiation or special approval by PI or other campus departments (e.g., facilities, IRB, IACUC)
  • Award negotiation (OPAM directly with sponsor and coordinates, if needed with PI/Co-PI, legal counsel, compliance offices, risk management etc.)
  • Documenting PI’s agreement (reviews and signs award documents)
  • Award execution (OPAM and sponsor sign final award documentations)
Award Process – Roles and Responsibilities

• OPAM and Controller’s Office/Research Accounting
  • Expenditure Account establishment (OPAM makes sure all award documentations are being sent to Research Accounting, who sets award up in PeopleSoft for spending; assigns grant account numbers, and notifies PI via email

• OPAM and PI
  • Subcontracts (being issued after account is fully set up through Research Accounting); PI will need to sign a subcontractor approval sheet
  
  Subcontract Approval Sheet
Award related forms and policies

- Drug-Free Workplace Policy Agreement
- Memorandum of Understanding (MOU)
- Participation Agreement (PAG)
- Pre-establishment of Account Agreement
- Principal Investigator Award Agreement (PIAA)
- Subcontract Approval and Sole Source Justification
Work and Family Transitions Project
(NIMH -R01- MH56777)

- Share your Timeline with your team
- Break the work up in small components
- Set deadlines
- Start with Yearly plan  
  - Develop 3 month plan
  - 1 month plan
  - Weekly project meeting goals
Building a Team: Hiring the right people

• List out all the staff you need to hire
  • Be clear about who you need to fill the position:
    • Post Doc
    • Graduate Research Assistant
    • Staff
    • Undergraduate Research Assistant
Where do I begin?

• Start with a detailed job description
  • Outlines all the tasks, responsibilities and expectations clearly.
  • What do you need to get done and when?
  • What skill sets do they need and how can you assure they have the skills?
  • What will their work schedule be (e.g., hours, will there be weekend and evening work involved)

• Pay attention to creating a diverse staff in terms of age, race, gender, ethnicity and ability as a way to enhance perspectives and input into your project.
How do I find the right people?

• **Get the word out**
  • Once you are clear on the jobs you need done and the staff needed to do them, then it is time to put the word out!
  • Ask colleagues, friends, and former students for references.
  • Consider students in your classes who would want research experience before moving on to graduate school.
Job Interviews

• Schedule enough time to find the right people to do the jobs
  • Outline questions ahead of time related to the job description
  • Invite others to participate in the interview process
• Ask short and open-ended questions
  • A link to sample interview questions is in your materials
• Ask for any publications or writing they have done
Collaborations

- Be crystal clear with co-investigators and consultants about what your expectations are
  - How often will you meet
  - What are their tasks
    - Due dates
    - Timing of papers
    - Authorship
  - This can be challenging if you are more junior than your consultants and/or collaborators.
• Clarify order of authorship
• Faculty Senate policy of professor – graduate student authorship:
  https://www.umass.edu/gradschool/node/721