Community Engagement and Collaboration: Building Strong Community Partnerships Through Research

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RESEARCH, INNOVATION & IMPACT
Societal Impact

A thought to ponder . . .

How do partners outside of the university enhance my research efforts?

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Today's Agenda

Introduction to Community Engaged Research

Why Engaged Research?

Ethics of Engaged Research

Break

Collaborative Project Management

Community perspectives

Resources

Networking

What do we mean by "community engagement and collaboration"?

Scholarship of Engagement

"[Our] outstanding universities and colleges remain, in my opinion, one of the greatest hopes for intellectual and civic progress in this country. I'm convinced that for this hope to be fulfilled, the academy must become a more vigorous partner in the search for answers to our most pressing social, civic, economic and moral problems, and must reaffirm its historic commitment to what I call the scholarship of engagement."

Ernest L Boyer, 1996

Original article citation:
Boyer, E. (1996). The scholarship of engagement. *Journal of Public Service and Outreach, 1*(1), 11-20.

The Scholarship of Engagement

Ernest L. Boyer, Ph.D.
Former President
The Carnegie Foundation
for the Advancement of Teaching

Editor's note: Dr. Boyer, slated to contribute to the first issues of JPSO, passed away in December 1995. Before his death, he had approved this submission, which was sent to JPSO by his staff.

NSF Broader Impacts

➢ **Broader Impacts**: the potential to **benefit society** and contribute to the achievement of *specific, desired societal outcomes*

➢ Broader Impacts may be achieved **through the research & education** itself, or **through specific activities** that are directly *related to identified outcomes*

Community Engaged Research

Engaged (participatory, collaborative) research **is an approach to research in which the people most directly impacted by the research** topic **become active participants in the process.**

Engaged research means partnering with non-academic people and organizations who bring their own knowledge and expertise to the research process.

Community engaged research means creating equitable partnerships built on mutual trust and shared learning.

Other Terms for Engaged Scholarship

Action Research (Participatory Action Research)
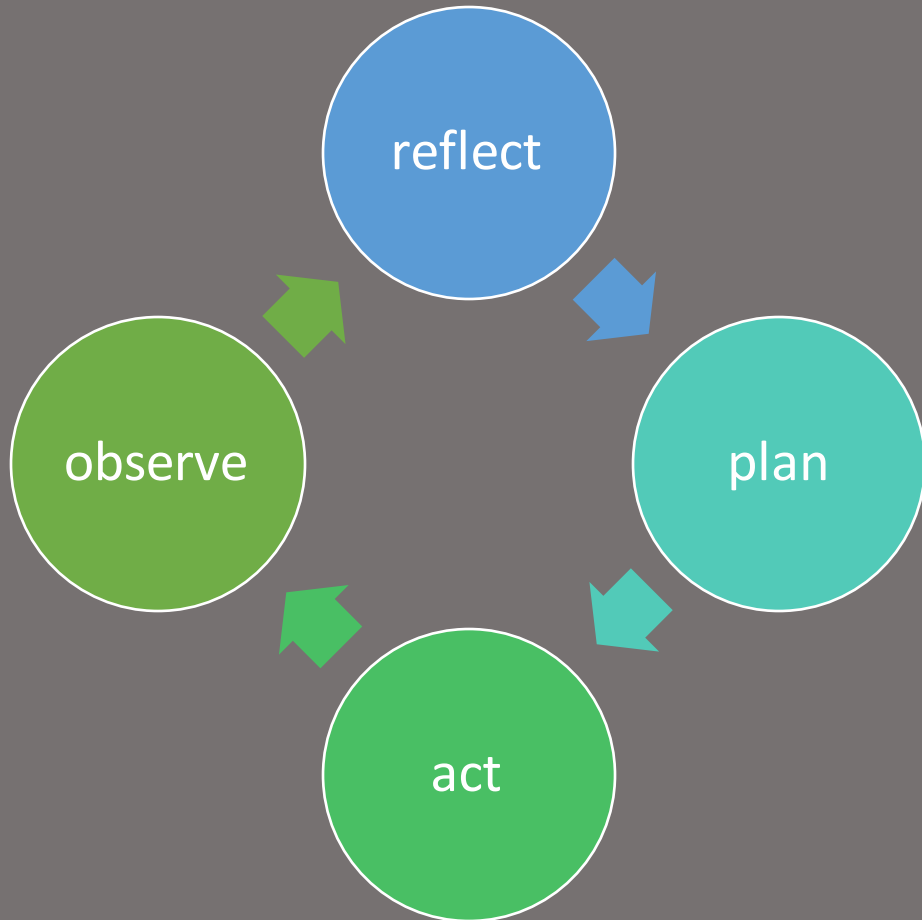
Community-Based Participatory Research

Transdisciplinary Research

Public Impact Research

Co-production of Knowledge

Knowledge Exchange

Action Research

reflect

plan

act

observe

"From the project's planning to its summative evaluation, ***those who have a stake in the problem*** participate in the project because their input is likely to limit the range of trial solutions to the ***realm of practicality***, their insights ***illuminate the data***, and their involvement makes the **ultimate *adoption of promising solutions more likely*** . . . The culture of action research incudes a ***strong commitment to democracy and egalitarianism***."

Gold, Martin Ed. 1999. *The complete social scientist: A Kurt Lewin reader*: American Psychological Association.

Community-Based Participatory Research

Community-based participatory research (CBPR) is an approach to research that involves *collective, reflective and systematic inquiry* in which researchers and community stakeholders engage as *equal partners* in all steps of the research process with the goals of *educating, improving practice or bringing about social change*.

http://archive.fieldmuseum.org/par/images/par-model-learn.png

Tremblay, MC., Martin, D.H., McComber, A.M. *et al.* Understanding community-based participatory research through a social movement framework: a case study of the Kahnawake Schools Diabetes Prevention Project. *BMC Public Health* **18,** 487 (2018). https://doi.org/10.1186/s12889-018-5412-y

Transdisciplinary Research

- Research that includes *multiple research disciplines* as well as *societal partners* in search of solutions to our most challenging social and environmental problems

- TDR is based on a democratic scientific practice of *engaging multiple knowledges*, through *equitable and mutually respectful partnership*, in the design and implementation of research objectives, questions, methods, and desired outputs or outcomes.

biophysical science

Indigenous (or local) knowledge

TDR

social science

practice-based knowledge
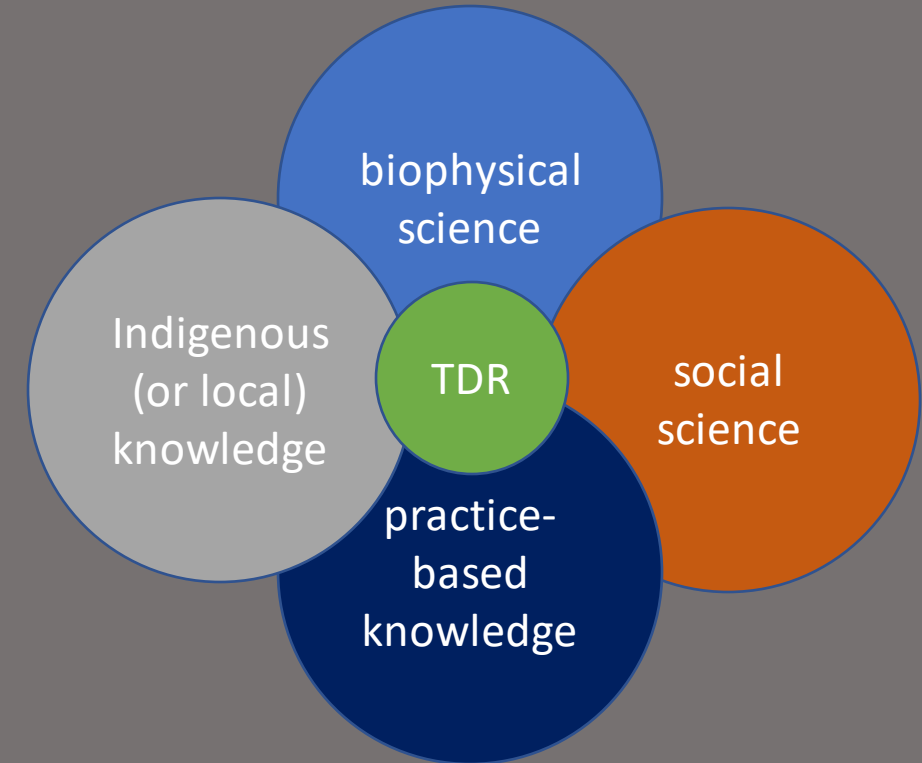
Wilmer, Hailey, Alison M Meadow, Amanda Bentley Brymer, Stephanie Russo Carroll, Daniel B Ferguson, Ibrahim Garba, Christina Greene, Gigi Owen, and Dannele E Peck. 2021. Expanded Ethical Principles for Research Partnership and Transdisciplinary Natural Resource Management Science. Environmental Management 68 (4):453-467.

Public Impact Research

Association of Public & Land-Grant Universities

Public impact research (PIR) is any research that benefits the public. This may include everything from developing new medications or understanding environmental challenges to examining disparities in education access and economic development.

Now, more than ever, we need to elevate and communicate the impact that public university research has on everyday life. We also need to emphasize the value of **collaborative** *research with communities—not just about communities*."

https://www.aplu.org/our-work/2-fostering-research-innovation/public-impact-research/

"[T]he key element of participatory research lies not in methods but in the attitudes of researchers, which in turn determine *how, by and for whom* research is conceptualized and conducted"
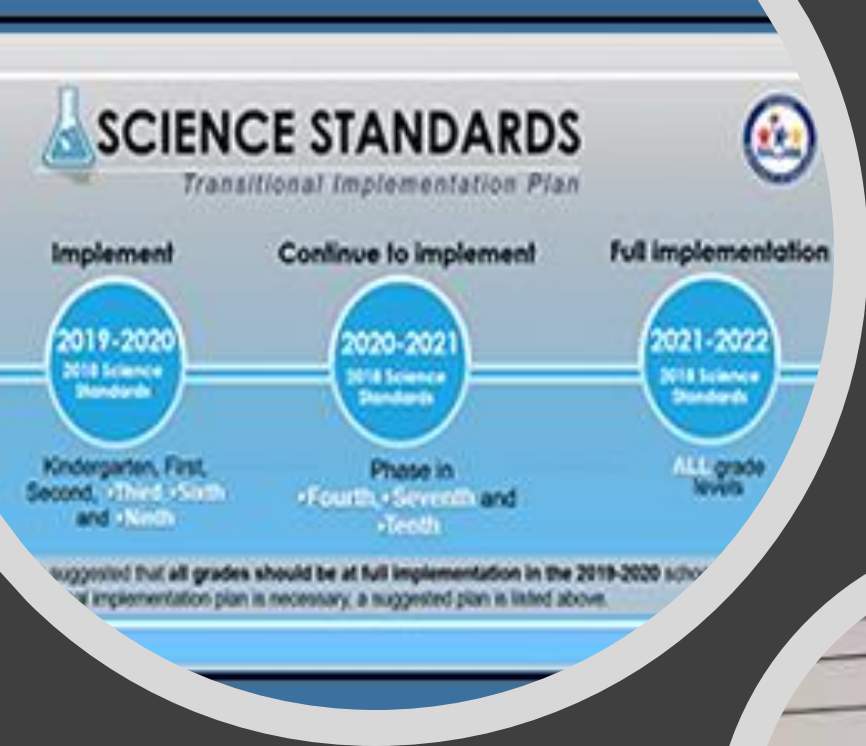
- Cornwall and Jewkes 1995

Cornwall, Andrea, and Rachel Jewkes. 1995. What is Participatory Research? Social Science and Medicine 41 (12):1667-1676.

Why should we do engaged research?

Impact requires collaboration

We need to know what other people know.

npr.org

https://sswm.info

Impact requires collaboration

We need our partners' "know how"

Impact requires collaboration

We need our partners' commitment

And we need to support them

"We're not going anywhere, so we need to manage this land as best we can."

Impact requires collaboration

We need to build trust

"They don't care how much you know until they know how much you care." – Pat Summit

Questions?

Ethics and Community Engaged Research

Partnerships are different than studies

- A challenge of community engaged research is that, while we need all the people involved, **engaged research requires new roles and responsibilities**
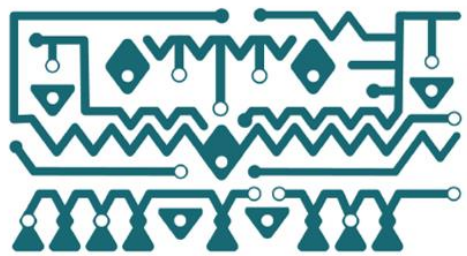
Ethics of Representation

- Research involves representing people, places, species, ecosystems and socio-ecological relationships, often in a journal article or book, so that it is communicated to others without direct knowledge of the topic.
  - Affects how communities, places, and people are seen by the outside world, for example: *Vulnerable or Uninhabited*

Wilmer, et al. 2021. Expanded Ethical Principles for Research Partnership and Transdisciplinary Natural Resource Management Science. Environmental Management 68 (4):453-467.

Self-Determination in Research

Communities have the right to:

- decide whether and how research is conducted within their territories and with their citizens;
- give (or not) collective consent;
- control data about the community and community knowledge

CARE Principles for Indigenous Data Governance

Respect for Others' Knowledge and Expertise

- When we work with people with different disciplines and different areas of expertise, we need to bring an attitude of humility and respect to the process.
  - Other researchers
  - Societal partners
- Be humble about others' experiences and expertise that differ from your own

Reciprocity

Ensuring that your collaborative activities, outputs, and outcomes have real benefits for your partners. A few ideas:

- data that is useful to partners
- publication of community language texts
- training and employment for community members
- development of educational curriculum or classroom materials
- mentoring of community students
- reproduction of historic photos or documents from distant archives

Lomawaima, K. Tsianina. 2000. Tribal Sovereigns: Reframing Research in American Indian Education. *Harvard Educational Review* 70 (1).

Revisiting our opening question

How do partners outside of the university enhance my research efforts?

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Societal Impact

Questions?

5-Minute Break

Agenda

- Introduction to CoPM
- Understand Your Team
- Plan for a Strong Collaboration
- Team Communication
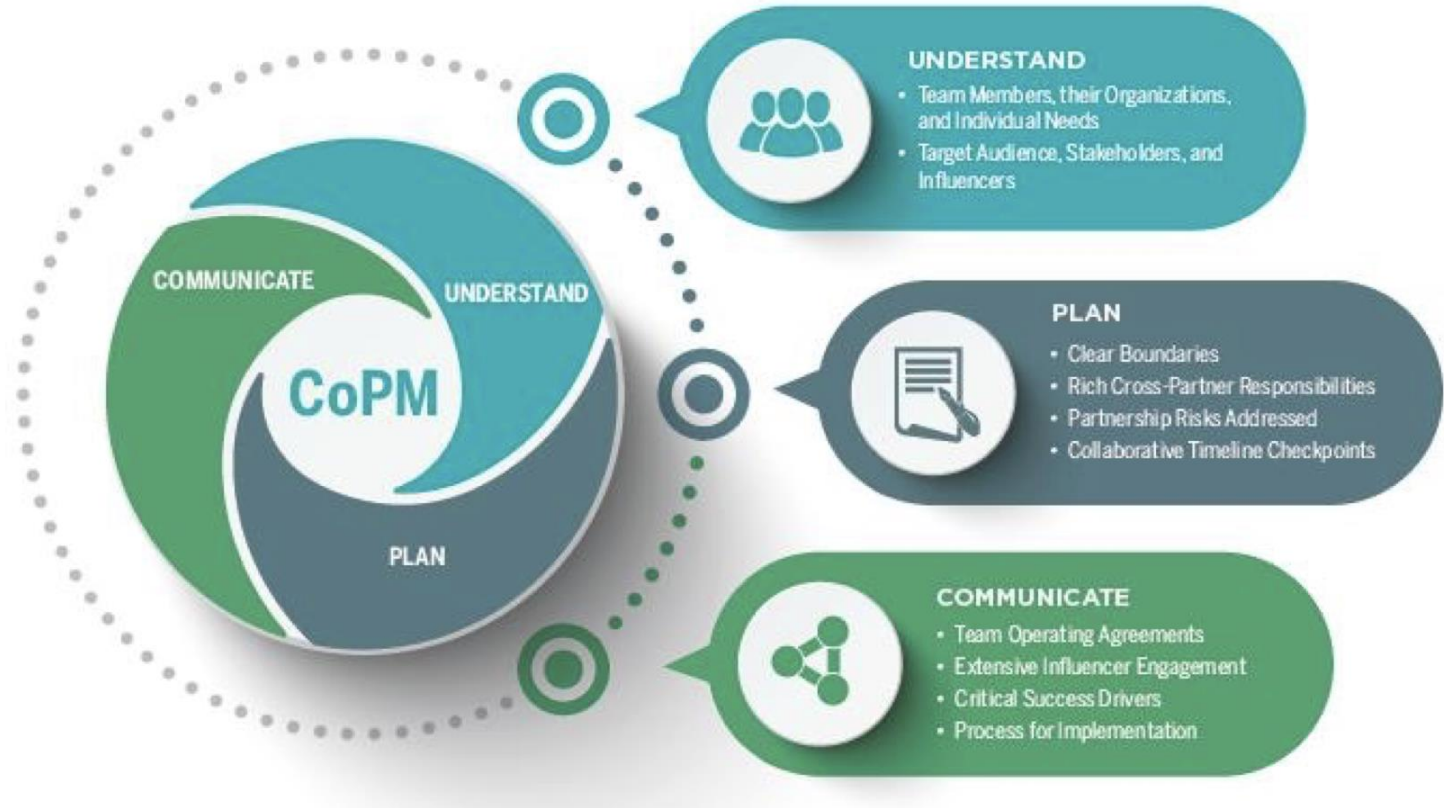
Introduction

The Collaborative Project Management Playbook for Multi-Organizational Teams (2019):

- Emphasize the intentional creation of a strong core team, rather than a team consisting of individual teams from each organization.

- Does not attempt to merge or change organizational cultures, but rather to coordinate those cultures so that the teams can work well together to achieve their mutual goals, as well as organizational and individual goals.

- Does not attempt to merge or change organizational cultures, but rather to coordinate those cultures so that the teams can work well together to achieve their mutual goals, as well as organizational and individual goals.

Introduction

The CoPM Playbook Helps Teams to:

- Achieve goals (yours, mine, ours)

- Avoid or quickly resolve issues that threaten the team and the goals

- Avoid or quickly resolve aggravations that make a project harder than it needs to be

- Build strong and lasting personal and organizational relationships that will be directly valuable for scaling, replicating, and expanding programs and partnerships

Understand Your Team

- Listening and sharing for mutual understanding

- Get to know and understand your team members

- Identify and understand your stakeholders and influencers

Understand: Listening for Mutual Understanding

Generous Listening: I want to hear you and understand you. I will make the effort to listen such that you have the experience of being **heard, understood, and valued**.

In the spirit of _generous listening,_ ask yourself:

- Am I listening to understand or am I listening to respond?

- Am I willing to be influenced?

- Am I practicing being a slow learner?

Understand: Sharing for Mutual Understanding

*Individual sharing: I want to be **heard**, I want to be **understood**, I want to be **valued**.*

In the spirit of *individual sharing*, ask yourself:

- Am I open to sharing to help build understanding among us?

- Am I willing to give up ownership? When I lay my ideas on the table, am I willing to let the team build upon them?

- Am I encouraging others to share so that all voices are being heard?

Understand: Get to Know and Understand Your Team Members

What is it this about?

- Members of multi-organizational teams may have very different (personal, cultural, and organizational) "unwritten" rules, expectations, and values.

- May differ from stakeholders with whom we work and to whom we provide services.

- In addition to our shared project goals, what does each person and organization hope and need to accomplish or receive?

- What matters to each person and entity?

Understand: Multiple Lenses to Get to Know and Understand Your Team Members

- **Diversity** - all the ways we are similar to and different from each other.

- **Values** - unwritten rules and assumptions that might be quite different than those of others (e.g., time, environment, communication)

- **Personal Styles & Preferences** - how we tend to or prefer to do things.

- **Wants and Needs** - personal motivations and outcomes desired by each person on the team, as well as of their organization.

Understand: Get to Know the Wants and Needs of Team Members

1. What does success of our project look like?
2. What does success look like for me personally?
    1. What has me most excited to about working on our project?
3. "*My organization/unit/department will consider our project a success when . . .*"

Understand: Get To Know the Stakeholders and Influencers

- Who cares about the project and why?
- Who will benefit from (or reject) what is created?
- Who could support it or undermine it?
- Understanding your stakeholders and influencers gives the team a solid foundation and justification for thoroughly engaging and communicating during the project.

Understand: Get To Know the Stakeholders and Influencers

Intentional work to:

- **Identify Stakeholders** who are part of our audiences and our partner organizations.

- **Identify Influencers** who could help or hurt the project through their actions, opinions, or inactions.

- Thoroughly **understand** all their perspectives, what they care about, and how they could help or hurt the project if not properly engaged or informed.

TEMPLATE: Stakeholder-Influencer Assessment Worksheet

Stakeholder-Influencer Assessment				
Person and/or Group	**Why stakeholder or influencer:** •Why do they care? •Are they a direct audience? •How will they be impacted? •How could they support it?	**Relative Importance** •Power (Influential vs. Insignificant) •Level of Interest (Active vs. Passive) •Attitude for or against (Backer vs. Blocker)	**Primary Wants and Needs** How will they judge value of this project? What would have to be true for them to consider this project a success?	**Other: Cultural, Values** What else do we know about them, that could help?

Plan for a Strong Collaboration

- Clarify scope and boundaries
- Cross-team responsibilities and involvement
- Risks to the partnership and mutual attention to risk management

Plan: Clarifying Scope and Boundaries

What is this about?

- Identifies major deliverables and activities that are "in scope" of the project.

- Identifies activities that are "out of scope" for the project.

- Defines when the project is done - the last deliverable or activity to be completed

Importance

- Ensure team is not overlooking activities critical to accomplishing the project's goals.

- Prevents "scope creep" and ensures resources are not spent on "out of scope" activities.

- Understand each other's work and see opportunities for collaboration

Plan: Cross-Team Responsibilities and Involvement

What is this about?

Approaches for considering and clarifying individual team member responsibilities and accountabilities related to specific (in-scope) activities and deliverables of the project.

Plan: Cross-Team Responsibilities and Involvement

Importance

- Ensures everyone else knows how they need to participate (and has a say in how they believe they should participate).

- Avoids leaving someone out, for example from idea generation or reviews, and losing the advantage of their expertise or ending up needing to make disruptive changes later.

- Avoids confusion about who has the ultimate accountability for results on the item including who has the ultimate authority for related decision-making.

- Helps the team identify all possibilities for rich collaboration across the partner organizations on major activities and deliverables – for benefit of the project and individuals.

Plan: Cross-Team Responsibilities and Involvement

RACID Chart:

Responsible for completing tasks

Accountable for all work on the task

Consults and provides input

Informed, but does not work on task

Directs work, **D**ecision maker

Partner Org:	SI	GS	QXQ			
Person → SCOPE item	Michelle	Marisa	Gabbie	Name	Name	Name
Recruit	R, A	R	C, I, D			

Plan: Identify and Address Risk to Partnership

What is this about?

- Uncover and capture possible risks to the partnership.

- Assess, compare, and prioritize risks.

- Collaborate on ideas for avoiding or lessoning risks.

- Determine important risk-reduction actions to add to your project plan

Plan: Identify and Address Risk to Partnership

Importance

- Surfacing risks together sets a tone for being open and proactive about threats.

- Helps the team to be objective about how risks could impact the project.

- Takes advantage of the team's diverse backgrounds and perspectives.

- Acknowledges that the team has natural differences that should be planned for.

- Helps prioritize risks for most important action.

Plan: Identify and Address Risk to Partnership

Typical Sources of Risks

Differences in:
- Cultural Diversity
- Values & priorities
- Communication styles
- Time horizons & mis-matched calendars
- Definitions of success for this project

Project Constraints:
- Tight timeline
- Tight budget
- Missing resources or skills

Areas of Unknown:
- Lack of experience with stakeholder
- First time working with stakeholder
- Innovating significantly in more than one area.

Project Disruptions:
- Key team member leaves
- Organizational management changes or priorities shift
- Scope creep

Past Experiences

Plan: Identify and Address Risk to Partnership

Risk Assessment and Planning Table

What's the Risk? (Use Cause-Effect-Impact statement)	What would it impact? (Schedule, Budget, Quality, Audience, other)	How likely to occur? (Probability)	How severe an Impact?	Risk Score P x I	How could we avoid or lessen this risk?	Owner

Check your risk list together during team meetings. Ask if new risks have emerged.
Think of risk management as an ongoing process.

Team Communication

- Team communication and operating agreements
- Stakeholder/Influencer engagement and communication plans
- Critical Success Drivers (CSDs)

Communicate: Team Communication and Operating Agreements

What is this about?

A set of principles, practices, and communication methods that team members agree to use as they work together throughout the project.

Communicate: Team Communication and Operating Agreements

Importance

- Sets a strong spirit of mutual responsibility
- Allows the team to smooth working arrangements more quickly.
- Heads-off issues from typical cross-partner operating differences and remote team challenges.
- Ensures communication and coordination is planned proactively.
- Keeps discussions on track, achieve concrete objectives in meetings, and avoids wasted time.
- Helps diffuse conflict more easily and avoid some of it altogether
- **De-emotionalizes problems and encourages timely raising issues, even difficult ones.**

TEMPLATE: Team Operating Agreements and Communication Plan

In the space below, write guidelines for the items that are important for your team.

- INTERACTIONS - team norms

- MEETING schedules and effectiveness

- ELECTRONIC communication

- DOCUMENT storage and sharing

- COORDINATION - calendars, dependencies, progress

- PUBLISHING results and products

- ISSUES & CONFLICT – Raising, resolving

- DECISIONS – Making, communicating

- CHANGES - Controlling, communicating

Communicate: Stakeholder/Influencer Engagement & Communication Plan

What is this about?

- A thorough and effective approach to involving and communicating with stakeholders (including audiences) and influencers throughout the project.
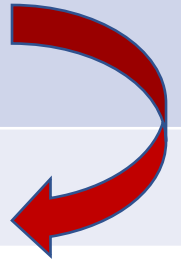
Importance

- As uncovered in the "Understand" section, projects can have both positive and negative influences.

- Identifying, communicating with, involving, and collaborating with influencers will likely have a more positive project impact.

TEMPLATE: Stakeholder-Influencer Assessment Worksheet

Stakeholder/Influencer Assessment

Person and/or Group	Why stakeholder or influencer: •Why do they care? •Are they a direct audience? •How will they be impacted? •How could they support it?	Relative Importance •Power (Influential vs. Insignificant) •Level of Interest (Active vs. Passive) •Attitude for or against (Backer vs. Blocker)	Primary Wants and Needs How will they judge value of this project? What would have to be true for them to consider this project a success?	Other: Cultural, Values What else do we know about them, that could help?

Stakeholder/Influencer Engagement and Communication Plan

Person and/or Group	How to involve?	What keep informed on?	How to best communicate	When?
	How should we involve them in the project, and starting when?	What do we need to communicate, keep them informed about?	Best way to communicate with them --- based on what we know about them and their organization.	How often or at what specific points should we communicate?

Communicate: Critical Success Drivers (CSDs)

What is this about?

- Usually 3 – 5 elements that must go right or be right for the project to succeed.

- A fundamental element, that if it fails, the project will fail to meet its goals.

- Fundamental elements of the project that must be focused on continually to ensure they are met.

"We must complete the first pilot by XX or we will miss or window for …"

Communicate: Critical Success Drivers (CSDs)

Importance

- Differentiates between those elements that are *critical* versus merely important or desirable.

- Ensures that no one is distracted from what matters *most* to the success of the project.

- If decisions must be made about resources or scope, having clear team understanding of the CSDs helps ensure those important elements are not inadvertently compromised.

Communicate: Critical Success Drivers (CSDs)

Teamwork

1. Identify potential CSDs – each member contributes candidates
2. For each candidate CSD, ask: *"If _____ happens/does not happen, will that in and of itself, cause the project to fail?"*
3. If >5 CSDs are identified, discuss each to determine if they are truly *critical*.
4. If they are all truly critical, consider as a team:

    "Are we taking on too much?"

    "Does the presence of so many CSDs mean that we are also taking on a great deal of risk?"

Putting it all together

POP (Project on a Page)	Team Project:	
The Partnership Team Organizations, team members, their roles, and their definition of a successful project. *(See also our Partnership Map)* - (Principal Investigator): Name, Org, definition of project success - (Principal Investigator): Name, Org, definition of project success - Etc. - - - - -	**Critical Success Drivers (CSDs)** - - - - - - **From Project Plan/Timeline:** **Key Milestones & Dependencies** - - - - - - - - -	**Team Communication & Operating Agreements** **Team Meeting Approach & Norms** (Meeting frequency, Processes and norms: e.g. Have an agenda and use it, one person talks at a time; arrive on time) 1. 2. 3. 4. 5.
Stakeholders & Influencers (incl. Audiences) Organizations and individuals who care about this project - - - - - - -		**Other Team Operating Agreements** (Processes such as how we will raise issues, make and communicate decisions, request and manage changes, how often we will meet. Norms such as "show respect for all opinions, value each other's time, respect each organization's culture and constraints when we plan." 1. 2. 3. 4. 5.
Scope - Clarification of Project Boundaries Ins: 1. 2. 3. 4. 5. 6. Outs: 1. 2. 3. This project will be considered complete when _____ _____	**Top Risks** - - - - **Status** as of [date] - - - - - **Major Open Issues** as of [date] - - -	**Stakeholder-Influencer Engagement and Communication Plan** – critical items - - - - - - - -

New study of community perspectives

"Community University Relations – Community perspectives on their interactions with UA"

Amanda Hilton, Sydney Pullen, Elizabeth Eklund, and Diane Austin
Bureau Of Applied Research In Anthropology (BARA)
University of Arizona (to be released soon)

- 54 interviewees representing 44 organizations
- Focused only on nonprofit and community organizations serving the geographical area of Tucson and Pima County, this study encompasses many types of relationships: (1) from short- to long-term; (2) centered on individuals and on institutions; (3) from informal to formal; and (4) incorporating many approaches

"Underlying are several factors that influence the relationships that develop between these organizations and the University of Arizona. These include differences in resources, access, size, and complexity; the status of the University as a large, state institution; and the historical and recent experiences with the University of people in the neighborhoods and communities that the organizations serve. *Key to how partnerships form and develop are whether and how the partners acknowledge these differences, seek to address them, and evolve as circumstances change*."

Characteristics that establish the context of relationships

Gaining access

Clear expectations & assessments

Mutual respect and benefits for all

Representation of the community in communications

Mutual learning

Branding vs. commitment

Themes that are relevant across interactions

Time: length of commitment and sustainability of the relationship

Communication

University resources

Bridging the gap between the university and community

Considerations for University Partners

- Do you have the resources—including time—to support networking and planning for a new partnership or a new program or project within an existing partnership?

- For research proposals and grants, have you involved partners from the outset in determining the research objectives, research design, and budget?

- Have you determined the relative salaries of the project leads and included permanent university salaries as leverage where possible?

- Have you determined the additional financial costs of the project for each partner? Have you examined the labor that partners will need to provide to make this partnership work and how that labor will be compensated?

Considerations for University Partners

- Have you identified sources of funding and other resources that will not put you and your partners in the position of competing with other community organizations?

- Have you built in flexibility to accommodate changing circumstances within the university or community organization? Have you established how you are going to communicate changes, such as the loss and additions of personnel within the university?

- Have you established mechanisms for communicating that recognize diverse styles for sharing and receiving feedback?

- Have you determined your expectations for disseminating results: in what venues, to what audiences, and by whom?

- Have you examined the risks that partners will face in this partnership and identified safeguards for all participating organizations?

UArizona Resources for Partnering

Societal Impact Partner Database https://impact.arizona.edu/partners-database

Societal Impact Collaborative Project Management Facilitation https://impact.arizona.edu/events-workshops

Edge Learning Responsible Conduct of Research Training. https://edgelearning.arizona.edu

Native American Advancement, Initiatives & Research https://naair.arizona.edu

Hispanic Serving Initiatives https://hsi.arizona.edu

Tech Launch Arizona https://techlaunch.arizona.edu

Carnegie Community Engagement Portal https://communityengagement.arizona.edu

Cooperative Extension https://extension.arizona.edu/

Of course, this is just a sampling of what is available…

Thank You

- Jen Fields (fieldsj@arizona.edu)

- Michelle Higgins (mlhiggins@arizona.edu)

- Alison Meadow (meadow@arizona.edu)

- UA Societal Impact: impact@arizona.edu

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Give Us Some Feedback!

https://uarizona.co1.qualtrics.com/jfe/form/SV_09FfuyZun6SMLiK

https://sirow.arizona.edu/
Research and Practice Overview: https://sirow.arizona.edu/research
Community engagement: https://sirow.arizona.edu/community-engagement

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girl scouts
of southern arizona

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Our Programming

After-School Model - GSSOAZ will support running an hour to an hour and a half program in after-school settings. We are currently serving over twenty schools.

Lunch Program Model - GSSOAZ will come and do short activities with each grade to introduce them to Girl Scouting. We adopt entire schools in this model.

During School Model - GSSOAZ will come during a regularly scheduled class time and run a short program. Traditionally this model serves middle school students.

Collaborative Model - GSSOAZ partners with community organizations to meet youth where they are at (Detention, Group Homes, etc.)

Girl Scouting builds youth of courage, confidence, and character, who make the world a better place.

FORGE

Finding Opportunities and Resources to Grow Entrepreneurs

Student Venture Pathways

- Develop entrepreneurial mindset
- Educate about venture process
- Connect to people and resources
- Celebrate impact and founders

FORGE Community

- Entrepreneurial ecosystem hub
- Convene at Roy Place Building
- Upskilling and training

FORGE Ahead

- Resident startup teams
- Scale up/launch acceleration
- Individualized coaching

https://wise.arizona.edu/

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- Bio/Diversity Project, CREATES Literacy Project, & Imagine Your STEM Future Program

Gaby Perez, Program Coordinator: gperezlaurent@arizona.edu
-WISE Mentorship Program

DATA SCIENCES ACADEMY

The Data Sciences Academy will support endeavors to coordinate and lead in all areas of the data sciences and all aspects of university research, education and outreach.

- Professional Master's Degree courses and emphases

- Focus on high-impact practices in undergraduate education

- Mentoring research for undergraduates with strengths in the data sciences

- Work with teachers and students in the schools, partnering, e.g., with the Southern Arizona Research Science and Engineering Foundation or the Arizona Department of Education

- …

https://dataacademy.arizona.edu/

Office of Early Academic Outreach

EAO's mission is to increase the number of low-income, underrepresented, and first-generation college-bound students who aspire to attend and are eligible to enter a university degree program.

Algebra Academy - Summer program serving rising 9th grade students with an introduction to fundamental algebraic concepts via small-group, hands-on projects where students experience the application of math to the real world.

College Academy for Parents (CAP) - College knowledge workshops, interactions with faculty & UA campus visits are key components of this 12-week parent outreach program that helps bilingual elementary school families develop a college plan for their children.

College Knowledge for Counselors - A professional development conference designed to provide educators with innovative ideas of how to create a college-going culture in Arizona middle and high schools.

College Knowledge for Parents - This one-day event invites 8th grade families to discuss admissions, paying for college, and the transition to high school. Families have the opportunity to explore the campus and its academic offerings.

Mathematics, Engineering, Science Achievement (MESA) - A national outreach program that helps 1,000 AZ college-bound students explore STEM fields through competitions where students utilize a simplified engineering design process (explore, design, test) to optimize performance.

Native American Science & Engineering Program (NASEP) - Native American students from across Arizona are invited to a comprehensive 1-week summer program that exposes students to sustainability and a variety of STEM majors & careers. Students are then engaged in a university-level research project and receive guidance in college admissions and the scholarship search process.

Strategic Statewide Outreach
Partnerships with school districts in the Phoenix metro area to increase exposure to the University of Arizona through engagement of students, families and schools in college planning activities.

For questions call our office at 520.626.2300 or reach out to our Assistant Director, Manny Leon at leon@arizona.edu.

Office of Early Academic Outreach

SARSEF's Mission: We create Arizona's future critical thinkers and problem solvers through science and engineering

sarsef.org • julie@sarsef.org

Regional Science and Engineering Fair • Racing the Sun • AZ JSHS • Free In-School Outreach • AZ STEM Adventure • ACES Camp • STAR Lab

Arizona's Science, Engineering, and Math Scholars (ASEMS) Program

ASEMS
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Arizona's Science, Engineering, and Math Scholars (ASEMS) program provides services to support students in graduating with a STEM major. This program focuses on **promising students who are underrepresented in STEM**, especially students who are first in their family to attend college, from low-income households, who transferred from a community college, and from underrepresented groups, such as women and minorities.

ASEMS fosters a culture of **inclusive excellence** at the University of Arizona by **empowering STEM students** with the tools necessary to **succeed while recognizing their unique backgrounds and assets**.

Programs
- TRiO ASEMS
- College of Agriculture and Life Science ASEMS
- ASEMS Veterans
- ASEMS Transfer
  - College of Science
  - College of Engineering
  - College of Agriculture and Life Sciences
  - Pima-UAZ S-STEM Bridge
- ASEMS Scholar Training Academy for Research in STEM (STARS)

SERVICES & BENEFITS FOR STUDENTS
- Receive individualized support from a **peer mentor**
- Be part of a **community** of fellow STEM students
- Learn proven **academic success strategies**
- Connect with supportive staff and faculty for **academic and career advice**
- Develop **research skills** to be competitive for paid research positions
- Engage in **lab shadowing** experiences to explore career interests
- Be eligible to receive **financial aid** (mini-grants) on a case by case basis
- Receive **free** small group and individual **tutoring** for STEM classes (up to 300 level classes)
- Attend exclusive **networking** events with **STEM faculty**
- Have access to **graduate & professional school workshops**
- Participate in **community service** and **leadership** opportunities

Learn More:
Website: http://asems.arizona.edu
Program Email: asems@arizona.edu
For First Year Students Contact:
Alexandra Diaz, alexandra@arizona.edu
For Transfer STEM Students Contact:
Dra. Jenni Batchelder, jennibatchelder@arizona.edu

MISSION

THE MISSION OF BOYS & GIRLS CLUBS OF TUCSON IS TO PROVIDE YOUNG PEOPLE IN OUR COMMUNITY, ESPECIALLY THOSE WHO NEED US MOST, WITH A CLEAR PATH TO REACH THEIR FULL POTENTIAL AND PURSUE THEIR DREAMS.

BOYS & GIRLS CLUBS
OF TUCSON

CONTACT

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Extra slides

Native Peoples Technical Assistance Office (NPTAO)

ABOR Tribal Consultation Policy & UArizona Guidelines

Arizona Tribes and Research Policies

Research Training and Resources

https://naair.arizona.edu/about/nptao