

Creating a Culture of Collaboration: *Operationalizing Interdisciplinary Research*

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State University of New York
College of Environmental Science and Forestry



University at Buffalo
The State University of New York

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Fostering Collaboration in SUNY

- Launched in 2013
- Fund *multi-campus* research projects to:
 - Promote **innovative, collaborative research** among SUNY faculty
 - Provide **experiential learning opportunities** for SUNY students
 - Produce **social benefit** and economic opportunity for New York and beyond



Our Research Team

Understanding and Overcoming Barriers to Communication in Complex Socio-ecological Systems

- 9 Individuals from diverse disciplines at 4 SUNY Institutions



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Inter- & Transdisciplinary Research

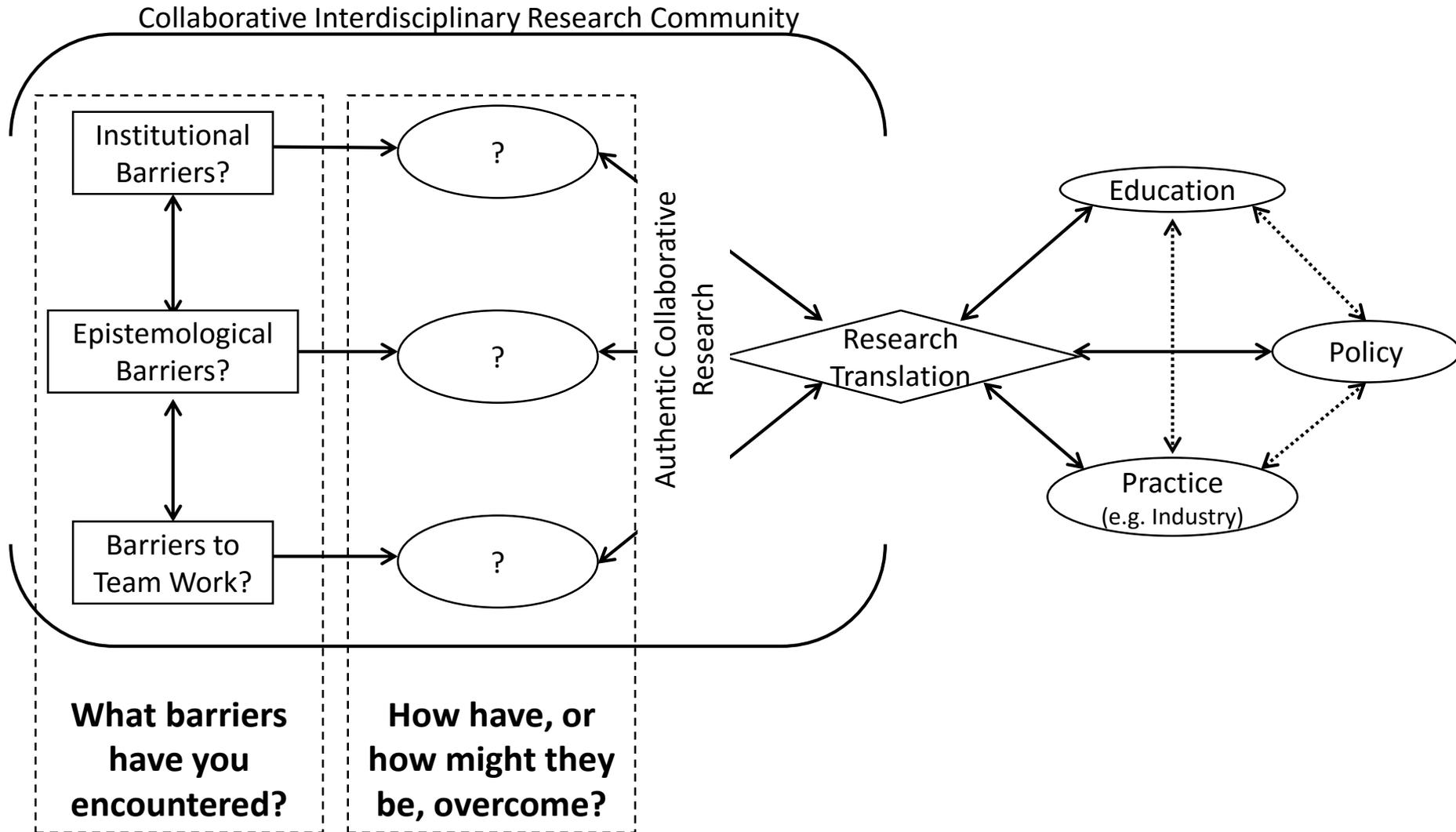
- Presents new challenges to the research process.
- Many of us have not been trained to participate.
- Requires coordination of multiple individuals around a multi-faceted (complex) research problem.

License to Laugh



"Sometimes I think the collaborative process would work better without you."

The 4E Team



Methods

- **Online survey**
 - SUNY researchers in 4E domains across 8 SUNY Institutions.
 - 651 responses (28% response rate)
- **Semi-structured interviews**
 - 15 interviews across 7 interdisciplinary teams
 - 13 interviews with SUNY administrators
- **Working with ongoing projects** in the Networks
 - Identify and overcome barriers in real time
 - Green Composite Materials and Brain Networks
- **Workshop development**
 - Facilitative Leadership for Collaborative Team Research
 - Navigating complexity in process and problems

Survey Respondents

- ***“Barriers to Interdisciplinary Research In and Across SUNY”***
 - The majority of respondents were tenured research or faculty members (55%)
 - 67% had submitted an Interdisciplinary (INT) proposal.
 - 76% had participated on an INT research team
 - 85% were interested in doing so in the future
 - Why do they participate?
 - ***The “...problem(s) of interest required subject matter expertise OR methods or techniques from disciplines other than [their] own” (28%)***

Institutional Barriers	Epistemological Barriers	Barriers to Teamwork	Barriers to Research Translation*

Top Three Barriers to Interdisciplinary Research In & Across SUNY:

Institutional Barriers	Epistemological Barriers	Barriers to Teamwork	Barriers to Research Translation*
Time demands	Lack of common language	Geographic differences (Travel Required)	Challenges of communicating with different audiences
Funding challenges	Different methodologies, assumptions and what constitutes adequate proof	Personal characteristics	Goals of academic research are not compatible with goals of practitioners
Budget control	Difficulty in clarifying problem definition and integrating objectives	Project organization or management structure	Scholarly research relevant to policy, education or industry is valued less than other research

*Includes only respondents who answered 'yes' to whether they participate in research with translation for policy, education or industry

Collaboration

Interdisciplinary engagement as a means of co-shaping the problem or research question as part of the collaborative process.

- Multiple perspectives involved in problem formulation.
- The inter- or transdisciplinary research team comes together at the point of problem formulation with the recognition that additional points of view will require problem reformulation.

Contribution

Interdisciplinary engagement as a means of inserting complementary expertise into a previously established problem or research question.

- Project is defined by a single or few disciplinary perspectives, but does not include the breadth of disciplines that subsequently will be engaged in the project.
- Individuals are invited/contracted to fulfill a disciplinary or organizational role on an already defined problem.

Creating a Culture of Collaboration

Institutional Space & Opportunity



**Overcoming
Barriers to
Authentic
Collaboration**

Intellectual Openness
& Engagement

Facilitative
Leadership

Strategies for Promoting Collaboration



www.rfsuny.org/RF-News/ESF-NoE---Composites/Name-18630-en.html

1. Empower facilitative leaders
2. Non-Disclosure Agreements
3. Proactive identification of barriers
4. Collaboratively defined operating agreement.

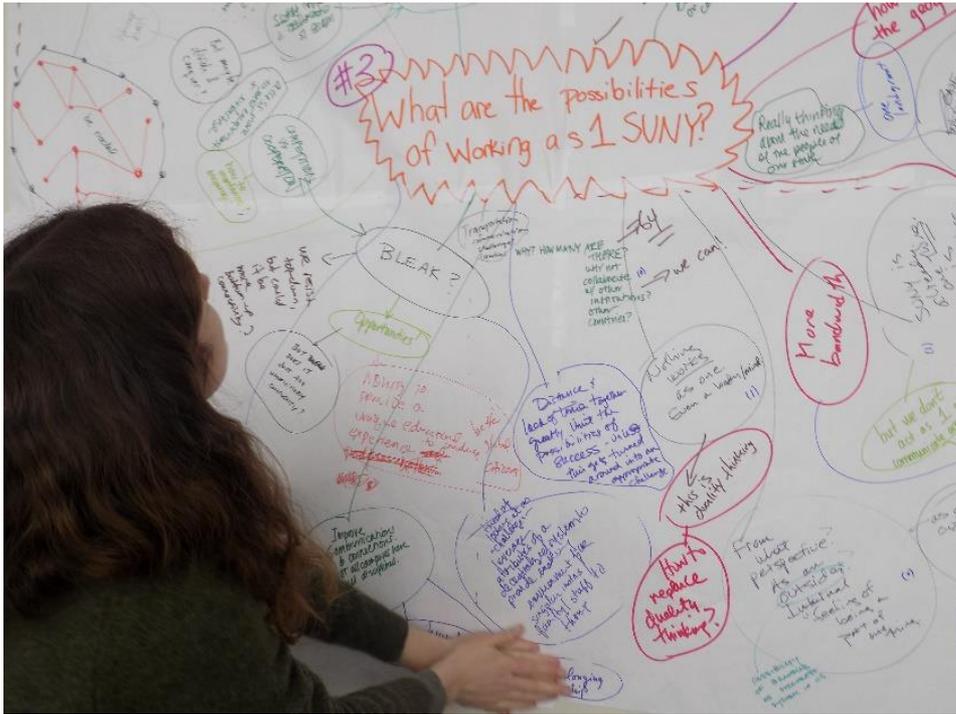
Operating Agreement

- 1. Respect for intellectual property: will not submit an individual proposal based on group ideas.**
 - Be willing to share ideas;
 - Be transparent in the communication of plans for publications, proposals, patents, etc. throughout the process.
 - Intellectual property includes networks and contacts.
- 2. Agree to be an active participant and engage in the process.**
- 3. Collectively determine criteria for impartial selection of projects.**

Strategies for Promoting Collaboration



1. Empower facilitative leaders
2. Non-Disclosure Agreement
3. Proactive identification of barriers
4. Collaboratively defined operating agreement.
5. Developing shared visualizations.
6. Critical Reflection



UNITED STATES SOCIETY
for ecological economics

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Thank you!