

# *Interdisciplinary Team Science for EPSCoR GEM 3: A Toolbox Workshop*

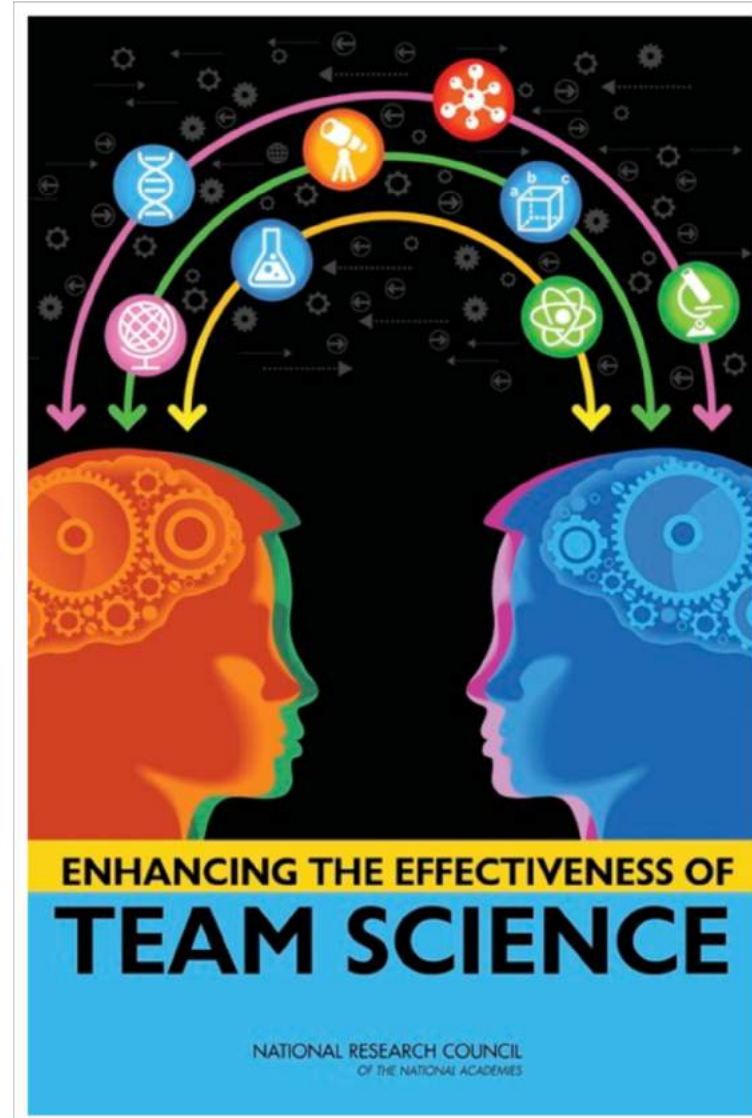
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<http://tdi.msu.edu/>

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# Team Science & Integration

- There are better and worse ways of doing team-based interdisciplinarity
  - Difference is the point, but also the source of challenges
  - Knowledge integration is key
- *Science of Team Science* addresses the nature and impact of team research



# MEET COMPLEX PROBLEMS WITH COMPLEX RESPONSES

*We improve cross-disciplinary collaboration in research and practice*

LEARN MORE

<http://tdi.msu.edu>



**270+**

Workshops  
Conducted



**2500+**

Workshop  
Participants



**20+**

Peer-Reviewed  
Publications



**120+**

Presentations  
Delivered

– Main Idea

***Enhanced understanding →***

***Enhanced communication***

- Operationalize this idea *philosophically* through structured dialogue (Eigenbrode et al. 2007)
- Dialogue informs and encourages effective integrative practices:
  - Reflexivity
  - Perspective-taking

- Toolbox workshops help groups discover and examine perspectives and manage differences
  - Structured dialogue reveals attitudes, views, values, and beliefs within a group
  - Co-creation activities support group efforts to leverage their diverse perspectives
- We typically collect and use data for research to provide insight to groups (not today, though)

# History of TDI

**2001-2007: *University of Idaho NSF IGERT* - Conserving Biodiversity and Productivity within Fragmented Landscapes**

**2005: *Seminar* - Philosophical Issues in Interdisciplinary Research: Phil 504/Ent 504, Eigenbrode, O'Rourke, and friends**

**2007: Employing Philosophical Dialogue in Collaborative Science, *Bioscience*. 57:55-64**

**2009-2014: *University of Idaho NSF IGERT*: Evaluating resilience of ecological and social systems in changing landscapes**

**2008: *NSF SES* - Improving Communication in Cross-Disciplinary Collaboration**

**2013: *Book* – Enhancing Communication & Collaboration in Interdisciplinary Research**

**2014: *TDI established* at Michigan State University - <http://tdi.msu.edu>**

# Workshop Experience

280+ workshops around the world



21 U.S. states and territories, 14 countries

# TDI EPSCoR

**Raising the Bar for Integrated Science in Idaho**

**Multi-institutional  
Interdisciplinary  
Intermission  
Transdisciplinary, with stakeholders  
Collaborative  
Inclusive**



# Tomorrow Morning

*A Toolbox Dialogue* to help enhance communication across this project.

Starts with an on-line survey: link to be sent just prior

**Please bring a wireless-enabled laptop, phone, or tablet!**

Three breakout groups (notice the markers on your name tags) for a 1-hour dialogue



Reconvene to compare experiences, share some survey data

Segue to poster session

## **TBD with input from you**

- Workshops with participant teams at Idaho EPSCoR institutions**
- Workshops at future Idaho EPSCoR annual meetings**

- Unacknowledged differences compromise interdisciplinary research and practice
  - Language differences among disciplines and affiliations
  - Differences in values, priorities, and cultures
- Acknowledging differences can enhance mutual understanding and, thus, improve communication and, eventually, project integration
- We enhance mutual understanding through dialogue-based workshops and related activities