



# Facilitating Team Communication Using the Toolbox Dialogue Method

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The Toolbox Project  
<http://toolbox-project.org/>

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- Introducing the Toolbox approach
  - Preamble – 15 minutes
  - Complete Toolbox instrument – 10 minutes
  - Dialogue session – 25 minutes
  - Debrief – 10 minutes

- Introduce you to a dialogue method – the *Toolbox method* – that operates on the micro level, facilitating reflection on disciplinary differences
  - Describe the history and nature of the Toolbox Project
  - You will have the opportunity to participate in a Toolbox activity

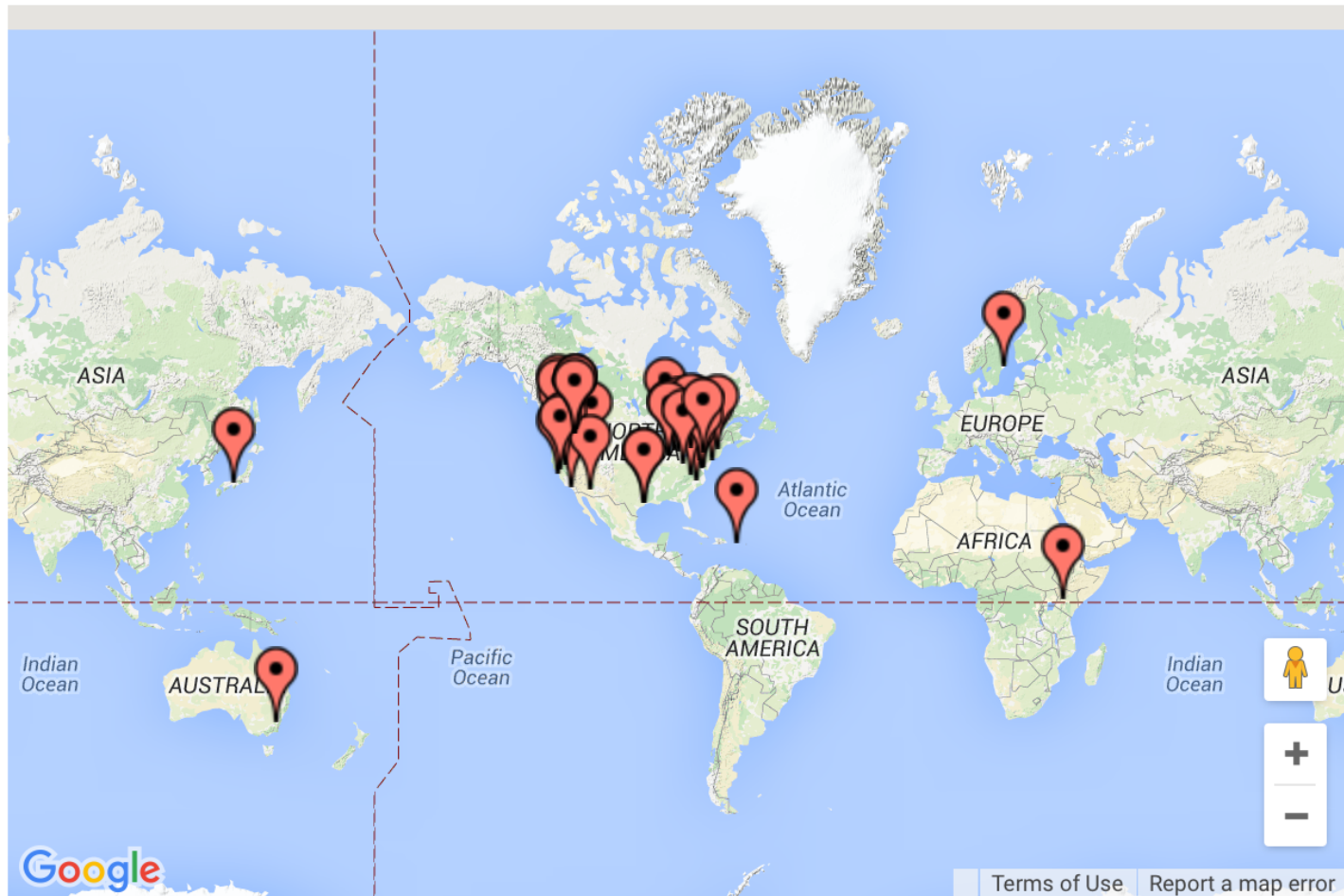
- What is the Toolbox Project?
  - An Michigan State-based, NSF-funded research initiative
  - We aim to enhance communication and collaboration in cross-disciplinary partnerships through structured, dialogue-based workshops
  - We collect data – Likert responses, dialogue audio, post-workshop survey responses – for research and reporting purposes

- The history of the Toolbox Project
  - Began at the University of Idaho
  - Emerged from an NSF Integrative Graduate Education and Research Traineeship project
  - Focused on making it easier for teams of science Ph.D. students to communicate with one another

# The Toolbox Project



- 180+ workshops around the world



# The Toolbox Project



- Collaboration with many initiatives

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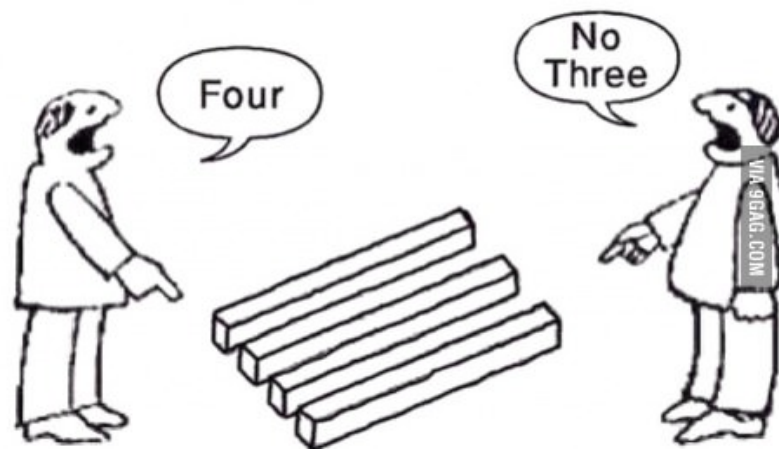


- Multiple publications and presentations, and an international conference





- Interacting with people from other disciplines is difficult
  - Different languages
  - Different beliefs about knowledge and the world
  - Different values
- The Challenge of Different Worldviews



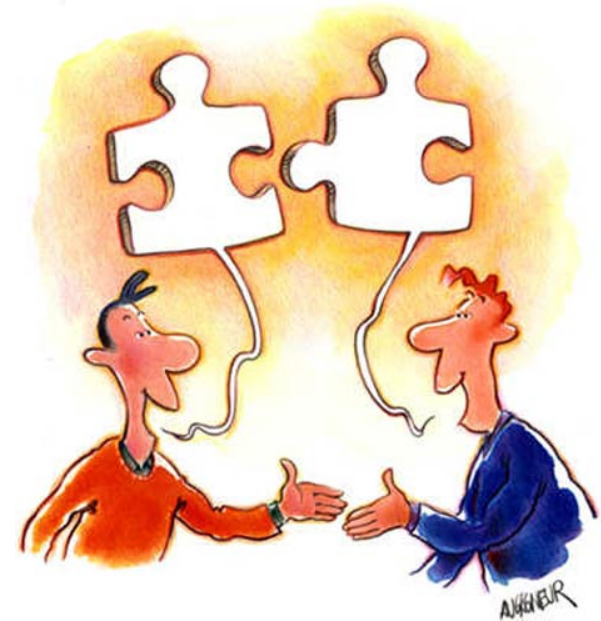
- Idea for addressing the challenge:

*Enhanced understanding → Enhanced communication*

- Operationalizing the idea: Structure a dialogue that
  - Highlights disciplinary values and beliefs
  - Reveals differences and similarities
  - Facilitates teaching and learning

- The integrative power of dialogue

“Researchers...desiring to work on interdisciplinary research, education, and training projects should immerse themselves in the languages, cultures, and knowledge of their collaborators” (NAS 2004, p. 81)



- Two Parts: **Instrument** & Dialogue Session
  - A structured set of prompts, grouped by module
  - Each module has a *core question* that announces the theme and *probing statements* that develop it

## Motivation

Core Question: What are the personal motivations behind my research?

1. Knowledge generated by research is valuable even if it has no application.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

2. My research questions are determined by funding opportunities.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

3. Research, service, and teaching are equally important to me.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

4. Applied research is more important to me than basic research.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

5. Solving stakeholder problems should be the primary objective of academic research projects.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

6. Researchers who collaborate with policy makers should be professionally rewarded.

<i>Disagree</i>					<i>Agree</i>		
1	2	3	4	5		I don't know	N/A

- Two Parts: **Instrument** & Dialogue Session
  - They are abstract and locate you on common ground
  - Typically designed for the partner's context
  - Likert scales associated with each statement

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- Two Parts: Instrument & Dialogue Session
  - The main element is a dialogue about the instrument
  - Prompts stimulate dialogue
  - Begin with any prompt you wish
  - Follow your interests around the instrument



- Two Parts: Instrument & Dialogue Session
  - It is *your* dialogue and is typically only lightly facilitate (not today)
  - No right answers
  - Normally, it ends with a second instrument and a debrief/reflections on workshop

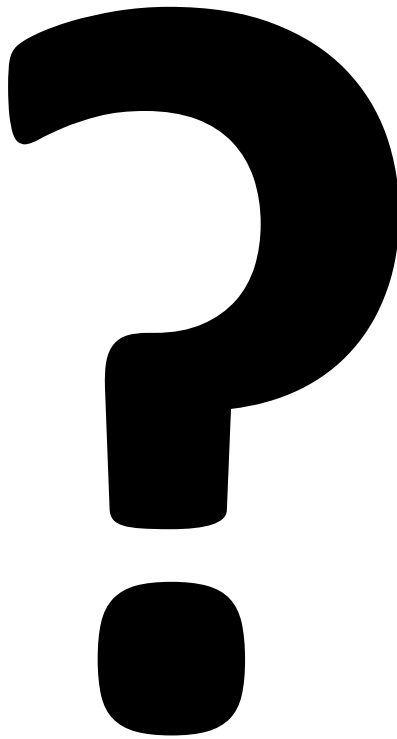


- Terms may be vague or ambiguous, e.g., *application, basic, success, scientists*
- Productive, engaged dialogues typically involve:
  - Even distribution of speaking turns
  - Careful and respectful listening
  - Attention to the issues raised by the prompts
  - Consideration of all the modules, if not all the prompts



- Divide into groups of 5 or 6
- Fill out the Toolbox instrument (both sides)
- When everyone is done, start talking about the issues raised by the prompts
- You can start wherever you'd like and move through the instrument along any path
- Remember to take charge of the dialogue, moving to a new prompt if discussion lags

# Questions?



- Debrief questions:
  - What issue revealed the most difference in your discussion?
  - What comments do you have on the experience?