**Toolbox Dialogues in the Classroom for Engagement and Epistemic Integration**

Brian Robinson (Texas A&M University-Kingsville)

Michael O'Rourke (Michigan State University)

(Presented at the Teaching Hub Poster Session –

American Philosophical Association Pacific Division Annual Meeting 2021)

**Toolbox Dialogue Initiative**

The Toolbox Dialogue Initiative (TDI) is an NSF-funded project research and outreach collective that is based at Michigan State University and includes members from eight US universities. We are actively engaged in using philosophical concepts and methods to facilitate communication and collaboration with partners around the world and in investigating the nature of cross-disciplinary and interprofessional research and practice. To date, we have conducted over 400 workshops worldwide to foster collaboration in interdisciplinary research groups through philosophical dialogue. These dialogues are structured by a Toolbox instrument containing prompts with which participants rate their agreement on a rating-response scale. The prompts are grouped together into modules that focus on philosophical themes, such as values or realism, and that are often introduced by a "Core Question" that announces the theme. During the workshop, participants complete the instrument, discuss their philosophical views with one another, explore how those views differ or overlap, and then complete the instrument again (O'Rourke & Crowley, 2020). Toolbox dialogues increase formation of beliefs about philosophical aspects of interdisciplinary science and accuracy in assessing philosophical views of interlocutors (Robinson & Gonnerman, 2020).

**Procedure**

Although most Toolbox dialogues are facilitated for teams of researchers and/or practitioners, this project focuses on use of the Toolbox dialogue method in undergraduate courses. At the start of each section of a course, students are given a Toolbox module consisting of 5-7 statements about the upcoming material. They are asked to rate their agreement or disagreement with each of these prompts on a five-point rating-response scale. For example, in an Introduction to Philosophy course, the module for the Free Will section of the course could include “Every event has a cause,” and “An action can’t be both free and caused.”

After everyone has completed the module, students break up into small groups (usually 3-5). In these groups, students discuss their responses and reasons for them with each other. This discussion typically lasts for approximately 10-20 minutes. If they ask what a prompt or term means, they are told that determining how to interpret the word or statement is part of the assignment and can be discussed in the group.

The subsequent reading assignments and class meetings all relate to the material introduced by the prompts. At the end of that section of the course, students are given two modules, the module they'd previously seen and a new module on the upcoming material. After responding to both sets of prompts, they again break into small groups and discuss, and are instructed to focus on the new module first. In this way, each module is seen twice. Alternatively, the old and new modules can be divided between the last day of one section and the first day of the new section of the course.

**Method for Writing Dialogue Prompts**

Organization:

* Build around a central topic or theme
* Start with a Core Question that all prompts deal with (optional)
* Write 5-7 prompts
* Use a scale to rate agreement or disagreement with an additional "I don't know" option
* Avoid redundancy but some prompts can be logically or conceptually related

Wording:

* Craft the prompts as positive or negative assertions
* Use non-technical language
* Use extreme language, such as 'never', 'always', 'must', 'all', and 'none', to generate strong responses and motivate dialogue about them
* Avoid unnecessary softening: such as ‘may’, ‘might’, ‘could’, or ‘perhaps’
* Use ambiguity and vagueness to reveal different interpretations and motivate discussion of disambiguation and sharpening
* Avoid logical complexity that creates multiple interpretations that don't reveal anything important about the prompt theme

Remember the main goal: facilitate dialogue

* Write prompts that have no right answer
* Make room for multiple plausible views and interpretations
* Design prompts to promote dialogue rather than accurately measure students' views on the topic
* See Looney et al. (2014) and Rinkus & Vasko (2020) for more guidance

**Pedagogical Objectives for Toolbox Dialogues in the Classroom**

* Quickly and simply introduce new material in upcoming readings and classes
* Demonstrate to students that they already have philosophical views about upcoming material
* Increase student interest and buy-in
* Prompt the realization in students that they have not examined some of these views before
* Demonstrate that other students have a diversity of philosophical views
* Teach students through practice how to argue for their own viewpoints
* Teach students how to ask good, probing questions of others
* Encourage epistemic integration of their philosophical views with those of their classmates
* Create opportunity for reflection on how their views changed after studying the material
* Help foster the virtues of intellectual humility and curiosity

**References**

O’Rourke, M. & Crowley, S. (2020). How it works: The toolbox dialogue initiative method in practice. In G. Hubbs, M. O’Rourke, & S. H. Orzack (Eds.) *The Toolbox Dialogue Initiative: The Power of Cross-Disciplinary Practice* (pp. 17-36). CRC Press.

Looney, C., S. Donovan, M. O’Rourke, S. Crowley, S. D. Eigenbrode, L. Rotschy, N. A. Bosque-Pérez, and J. D. Wulfhorst. (2014) Seeing through the eyes of collaborators. In M. O’Rourke, S. J. Crowley, S. D. Eigenbrode, & J. D. Wulfhorst (Eds.) *Enhancing Communication and Collaboration in Interdisciplinary Research* (pp. 220–243). Sage Publications.

Rinkus, M. A. & Vasko, S. E. (2020). Best practices for planning and running a toolbox workshop. In G. Hubbs, M. O’Rourke, & S. H. Orzack (Eds.) *The Toolbox Dialogue Initiative: The Power of Cross-Disciplinary Practice* (pp. 116-126). CRC Press.

Robinson, B. & Gonnerman C. (2020). Enhancing cross-disciplinary science through philosophical dialogue: Evidence of improved group metacognition for effective collaboration. In G. Hubbs, M. O’Rourke, & S. H. Orzack (Eds.) *The Toolbox Dialogue Initiative: The Power of Cross-Disciplinary Practice* (pp. 127-141). CRC Press.