

Supplemental Material

CBE—Life Sciences Education

Reinholz and Andrews

Supplemental Materials

For

Breaking Down Silos working meeting: An approach to fostering cross-disciplinary STEM-DBER collaborations through working meetings

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Meeting guidelines that we explicitly discussed and kept visible throughout the meeting.

**Breaking Down Silos
Guidelines for Interactions**

- Give the meeting your full attention, energy, and commitment.
- Be open, candid, and honest, and allow others to do the same. Make your point and move on.
- Respect all other participants. Argue with ideas, not people.
- Focus first on gaining understanding, second on convincing others.
- WAIT: Why Am I Talking?

These guidelines were adapted from guidelines used by John P. Beck, School of Human Resources and Labor Relations, Michigan State University.

Meeting Agenda

*Links are not live in this copy.

Breaking down silos: A working meeting to enhance research capacity for systemic change in undergraduate STEM education

San Diego, CA
February 3-5, 2019

MEETING AGENDA

Day 1: Level Up Sunday February 3

To Prepare for the meeting:

- Add your [short biography](#)
- Create a slide for your [two-minute theory talk](#)
- Read your [assigned article](#) to prepare for jigsaw

Day 1 Purpose:

- Set goals for the meeting
- Build community amongst participants
- Build our personal and collective knowledge of potentially relevant theoretical frameworks

| Day 1, Sunday February 3: Level Up | |
|------------------------------------|---|
| 1:00 pm | Welcome by PIs and setting the agenda: Why do we need <i>Breaking Down Silos</i> and what do we aim to accomplish? |
| 1:30 pm | Breaking the Ice. Why does change theory matter to undergraduate STEM? (Interactive brainstorming session) |
| 2:00 pm | 2-Minute Theory Talks: Each participant presents for 2-minutes about their current and future change research in undergrad STEM, with a focus on the theoretical underpinnings and challenges |
| 3:30 pm | Break for snacking and networking. Take a look at the dinner options below |
| 4:00 pm | Breakout session 1: Familiarizing ourselves with relevant theories Part 1 (20 minutes): Jigsaw with groups who read the same papers (Reading groups) Part 2 (30 minutes): Jigsaw with Mixed groups to share summaries of papers BREAK (10 minutes) Part 3 (30 minutes): Mixed groups work together to find similarities and differences across theories discussed today (papers and 2-minute theory talks) |
| 5:30 pm | Groups report out on similarities and differences. Consider a draft typology. |
| 6:00 pm | Arrange dinner logistics. Dinner Guide. Dinner Signup. |
| 6:15 pm | Dinner at local restaurants in self-selected small groups |

Day 2: Organize
Monday, February 4

To Prepare:

- Reflect upon the draft typology from yesterday.
- Be ready to share any thoughts or reflections with peers at breakfast.

Day 2 Purpose:

- Revise the draft organization of theories
- Build community among participants
- Identify potential meeting products and emergent goals

| Day 2, Monday February 4: Organize | |
|---|---|
| 8:00 am | Breakfast and a chance to touch base with other participants |
| 9:00 am | Breakout Session 2: What can a typology accomplish? What do you want to accomplish? Participants in color groups. <i>What can a typology do for you and your work? How would it serve your stakeholders?</i> |
| 10:00 am | Group report-out, discussion |
| 10:30 am | Break for snacking and networking |
| 11:00 am | Presentations on Levels of Change. Individual Departmental: Erika Offerdahl Institutional: Elizabeth Holcombe |
| 12:00 pm | Lunch |
| 1:00 pm | Breakout Session 3: Examining and integrating theories at different levels: institution, department, individuals Participants grouped by declared interest to discuss theories within and across levels <i>What is specific about change at your target level?</i> |
| 1:45 pm | Group report-outs and discussion |
| 2:15 pm | Break for snacking and networking |
| 2:30 pm | Reimbursement paperwork (Candace from CRMSE) |
| 3:00 pm | Breakout Session 4: Generating a framework to organize relevant theories, Part 1 Participants organized by self-defined affinity groups |
| 4:30 pm | Report-out on what you've learned and next steps |
| 5:45 pm | Check in about meeting progress, emergent questions and challenges |
| 6:00 pm | Dinner at local restaurants in self-selected small groups |

Day 3: Act
Tuesday, February 5

To Prepare:

- Keep building on momentum from the past two days

Day 3 Purpose:

- Continue to revise the draft organization of theories
- Wrap up this working meeting
- Identify possible collaborations for continuing work after the meeting

| Day 3, Tuesday February 5: Act | |
|---------------------------------------|---|
| 8:00 am | Breakfast and a chance to touch base with other participants |
| 9:00 am | General Session: What thoughts do you have about what we've accomplished so far and what to keep in mind going forward? |
| 9:15 am | Breakout Session 5: Generating a framework to organize relevant theories, Part 2 Participants organized by self-defined affinity groups |
| 11:00 am | Group report-outs and discussion |
| 12:00 pm | Lunch & evaluation survey. Access here . |
| 1:00 pm | Breakout Session 6: Next steps and new collaborations Participants organized by self-defined affinity groups |
| 1:45 pm | Group report-out and discussion |
| 2:30 pm | What you can expect from the PIs |
| 3:00 pm | Adjourn |

End-of-Meeting Evaluation Survey

How many new people did you meet at the conference?

None

1-5

6-10

11-12

Of the meeting participants, with whom have you collaborated previously?

To what extent did this conference give you the opportunity to engage in conversations about systemic change with researchers from other STEM disciplines?

Not at all 1 2 3 4 5 *To a great extent*

To what extent did you learn about new theoretical frameworks potentially relevant to your work?

Not at all 1 2 3 4 5 *To a great extent*

How likely are you to start a new collaboration based on connections made at this meeting?

Not likely 1 2 3 4 5 *Very likely*

What types of collaborations do you think may emerge from connections made at this meeting?

In what ways did the meeting support your work as a STEM education change researcher?

Which features of the meeting design and format worked well for you?

Which features of the meeting design and format could have been improved?

What features of this meeting were different from other working meetings you have attended?

What interest (if any) do you have in continuing to work with this group after the meeting?
Please explain, including concrete products you'd like to develop.

Anything else we should know?

About you

What is your current professional position?

Which of the following best describes your institution type?

Doctoral granting university

Master's granting institution

Primarily undergraduate institution

Non-academic institution

Other

Is your institution...

Private

Public

What is your gender?

What is your ethnicity?

Do you have a disability? (If you are comfortable, please specify)

Are there any other aspects of your identity that are important to you?