

Session Title:

Exploring a Boundary Crossing Map of Challenges within Partnerships between K12 Teachers, and STEM & Education Faculty

MSP Project Name:

Boundary Crossing Teams in Support of Math and Science Excellence in Our School Systems

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Feedback Session**Strand 2****Summary:**

In order to create and sustain a pipeline of highly competent and pedagogically qualified mathematics and science teachers, our project has created three boundary-crossing teams of STEM and Education faculty, students, and teachers who are conducting needs assessments, cataloging the challenges of working across boundaries between institutions, boundaries between pedagogy and science, and boundaries between student education and careers. We will solicit input on our in-progress Boundary Map, which illustrates the boundaries between pedagogic and science content knowledge, between grade levels from middle school through college, between disciplines in science, and between STEM Faculty, Education Faculty, and Teachers. The map also explores the boundaries for college students entering and graduating college within STEM or STEM education disciplines.

Section 1: Description of product, tool, process, curriculum, or instrument:

We will share our in-progress Boundary Map to elicit feedback from the various constituents in the audience. The boundary map illustrates the boundaries between pedagogic and science content knowledge, between grade levels from middle school through college, between disciplines in science, and between STEM Faculty, Education Faculty, and Teachers. The map also explores the boundaries for college students entering and graduating college within STEM or STEM education disciplines. We will

present a physical map – including the boundaries and successful and unsuccessful solutions –in the session in a format to gain feedback from participants to enhance and expand the map.

Section 2: Question, issue, or challenge that is the primary focus of the session:

As implementers of MSP projects:

- Did you experience these boundaries?
- How were they overcome? Or not?
- What were your experiences with these boundaries?
- Are there other boundaries that you encounter that we have not yet mapped?

Section 3: Types of people who you think might be most interested in discussing this and offering feedback:

As this session involves the boundaries between all constituents, and across disciplines and grade levels, any MSP LNC participants would be interested in attending. We have specifically designed the participant interaction, and chosen presenters, to incorporate all viewpoints.

Section 4: How will you structure this session? What is your plan for participant interaction?

5 min – Introductions of all in the room

5 min – Explain the Boundary Map and answer questions

10 min – Demonstrate in terms of teams investigations and teams projects (pull immediate comments from participants)

15 min – Participants: Small Group interaction with the Boundary Map – Participants will mark up the map to incorporate experience from their own projects

10 min – Participants: Feedback from small groups and discussion, particularly gaining insight on other boundaries not covered

Impact for the project is to add richness to the boundary map from other projects that participate in the session, and to make alterations or refinements to the boundaries that we have been exploring. We anticipate that the boundary map will then become a more robust tool that can be used in developing integrative STEM programs.