First Week Activity Protocol

Informed by the Data Analysis Protocol and Tuning Protocol

Focus Question:

What does this activity say to students about what it means to do math/science?

Getting Started

<1 min	The presenter provides a very brief statement of the data which includes discipline (e.g., Statistics, Algebra, Biology, Physics, etc.), content area/topic, a short description of the activity, and your learning goals. • Be careful **not to provide** any information about the students that you'll have. We want to provide just enough context for participants to access the data but not so much that it would skew their perceptions. "Not knowing the context forces participants to look at the work more closely - without relying on preconceptions or jumping to conclusions about what a certain type of student ought to be able to do. It also gives the presenter a chance to hear fresh perspectives on students and their work...It also gives all the participants a chance to examine their own assumptions about students." (Blythe, Allen, and Powell, 2015). • *For example: "This activity is for my Physics class and it helps the student to think about design. It asks the student to use marshmallows and toothpicks to build the tallest, sturdiest tower possible. The goal is to introduce students to the engineering design process and to have them work together to discuss and negotiate their ideas."*

→ *Record your notes.*

Examine the Data

5 min	The participants silently examine the activity (data) noting any patterns they see, anything significant or unusual, and any conclusions that are beginning to arise. • If clarifying questions (simple questions of fact that are easily answered by the presenter, usually about context) arise, the presenter is welcome to answer them. At the end, the presenter should *remain silent and listen* to the conversation in the group.

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→ *Record your notes. You will refer to them in the next step.*

Describing Data:

5 min	The facilitator asks the group *"What do you see?"* If judgments or interpretations arise, the facilitator should ask the participant to describe the evidence on which they are based. • If an interpretation is made: *"That's an interesting point. It seems like an interpretation though. What did you notice that made you say that?"* • If a participant isn't aware of sharing air space: *"Thanks for sharing that idea. Does someone else who hasn't shared as much have something to add?"* • If participants are struggling with silence and begin to chat about unrelated topics or want to move on: *"I get that silence can feel awkward, but some of our best thoughts happen in the spaces of silence and insightful comments can come out of sitting in silence."* Participants offer non-evaluative observations and describe what they see in the data and state wherein the activity they see it (e.g., "*On page 3, under Homework assignments…*") They are careful not to provide any judgments or interpretations. The presenter is quietly listening to the conversation and taking notes.

→ *Record your notes.*

Interpreting the Data

5 min	The facilitator asks the group *"From the students' perspectives, what does this activity suggest about what it means to know and do math/science? What assumptions does the activity make about what it means to learn math/science?"* • If a presenter actively participates during the parts of the protocol they're supposed to be actively listening: *"I think that we could better serve you if you listen and take notes so that we can get a collective response at the end."* • If participants are asking questions of the presenter: *"I think that we could better serve them if we share our perspective and get their reflection at the end."*

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	This is the time for participants to share as many interpretations (that are connected to observations from the previous section) as possible. As they listen to each other's interpretations, participants can ask questions to improve their understanding of each other's perspectives. ● Here are some sentence starters that you can use to help you talk with each other about the data. ○ A pattern I notice in the data is that…, which makes me think… ○ I noticed..., which leads me to think... ○ I noticed that multiple examples of…, suggesting that… ○ I didn't see ..., which makes me think ... Presenter is quietly listening to the conversation and taking notes.
→ *Record your notes.*	

Implications from the Data	
5 min	The facilitator asks the group *"What are the implications for teaching and learning math/science in this classroom?"* ● If a participant is talking about something unrelated to the protocol: *"That could be something interesting to explore later, but it seems to be taking us away from the focus of this time in the protocol."* The participants talk with one another about the presenter's work as ● What does this conversation make you think about in terms of your own practice? About teaching/learning in general? ● What are the implications regarding opportunities for all students to learn? What are the implications for students who are absent during this activity? ● What steps could be taken? What strategies might be effective? What else would you like to see happen? ● Participants might have clarifying questions for the presenter at this point that are off topic. If that's the case, participants are encouraged to write those questions down and ask the presenter at a later time (e.g., break time, through email, etc.) Presenter is quietly listening to the conversation and taking notes.
→ *Record your notes.*	

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Reflect and Converse:	
5 min	The facilitator asks the presenter to respond to any of the following prompts. At this time the presenter is not necessarily answering all of the questions that have been asked, nor are they answering clarifying questions. This is a time for reflection. ● What did you learn from listening to your colleagues that was interesting or surprising? ● What new perspectives did your colleagues provide? ○ How can you make use of your colleagues' perspectives? ● (**Time permitting only**) Presenter asks for any types of feedback not already provided through the protocol.
→ *Record your notes.*	

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