|  |  |
| --- | --- |
| **Facilitator’s Guide****6-12 Art of Questioning**  | C:\Users\CASEI\AppData\Local\Microsoft\Windows\INetCache\Content.Word\CIA final logo-06 transparent.png |

**Session Description**

Participants will use a role-playing activity to discuss questioning tactics for teachers to implement the Mathematical Practice Standards. Participants will problem-solve issues in a traditional math classroom and create questions that lead to a higher level of student learning.

**Goal of the Session**

Participants will use the Common Core State Standards for Mathematical Practice to recognize and write good thought-provoking questions

**Pre-session Preparation**

1. Review the PP and slide notes
2. Make copies of the Art of Questioning Working Sheet, the Role Playing Handout, and the Standards for Mathematical Practice
3. Have poster paper and markers available.

| **TIME** | **CONTENT/ACTIVITIES** | **MATERIALS** |
| --- | --- | --- |
| 5 min  | **Introduction and Objectives**Slides 1-2Introduce yourself and the goals of the session.  |  |
| 15 min | **Role Playing**Slide 3Ask for four volunteers and assign them to play the roles of Samantha, Lucia, JaVaughn and Ethan. Have the participants read the handout carefully and point out to Samantha and Ethan that they have to write on the board during the activity. (An alternate would be to have three pieces of poster paper already written, the top one blank, the second one containing Ethan’s parallelogram and the third one containing Samantha’s trapezoid with the slant height labeled, but not the height. Then during the role-playing, Ethan and Samantha would rip off one of the posters rather than drawing their own shape.) After the “actors” have had time to review their role, show all participants the intended content standards and explain that this scene takes place at the end of a lesson on finding the area of a trapezoid. You may or may not want to hand out the scripts to all participants. It is useful when referring back to specific points in the scene.  | Role Playing HandoutPoster paper, a chalkboard or white board.  |
| 10 min | **Issues**Slides 4-5Ask the participants the questions on the slide one at a time. Give them time to think, pair, share during discussion of the questions. Point out that any lesson has good and bad qualities and that they should think about both. Possible answers are listed on the bottom of the slide. Allow participants to read the quote on slide 5 and consider how often we as teachers are too nice and don’t want our students to struggle.  |   |
| 20 minutes | **Introduce Standards for Mathematical Practice** Slides 6 – 7 Hand out the practice standards if the participants do not already have them. Explain that these standards are required. When a state adopts the CCSSM, they are adopting both parts – the content and the practice standards. The participants are going to work on a practice standard as a full group before working on one as a small group. Participants will read MP 1 and highlight up to 12 words. Give participants about 5 minutes to read and highlight, then talk to a partner and then share answers with the full group. They may want to record their words on the top of their working sheet. Create a full group list on a computer document, chalkboard or poster paper. Limit the final number to 12. Possible answers are available on the bottom of the slide.  | Standards for Mathematical Practice Art of Questioning Working Sheet.  |
| 20 min | **Your Turn**Slides 8 Assign a practice standard to each small group. Try to create at least 7 groups to accommodate the remaining standards. If there more than 50 people, you may want to break up into 14 groups and have two groups do each standard. Tell the participants to read their standard and to highlight 12 words. After individuals have time to read and think, have them work with their group to find 12 total words. Participants should put these 12 words on the top third of their poster paper.  | Poster paper for each group with a line dividing the top third and the bottom two-thirds.  |
| 20 min | **Role-Playing improvements** Slides 9-10Again, participants are going to work on a practice standard as a full group before working on one as a small group. Ask the participants to think of how they could incorporate MP1 into the role-playing scene. Have the participants think, pair, share. Create a full-group list of ideas. Possible ideas are at the bottom of the slide.   |  |
| 20 min | **Your Turn – Questions** Slide 11 - 18Using the practice standard that the participants were assigned, they should write questions or actions for the teacher in the role-playing activity to ask or take. Give the participants silent time to brainstorm and then let them work in their small groups and put these questions and actions onto the bottom two-thirds of their poster.  When the participants are finished, have the small groups present their posters. Use the appropriate slide to lead off each groups’ presentation. There are possible answers at the bottom of each practice standard slide. You can use these to help the participants during their discussion or if you feel like you need to add something during the presentation. If the participants and the presentations are going fine, you do not need to use these at all.  |  |
| 10 min | **Back Pocket Questions**Slides 19-21Define a back pocket question as a question that teachers can keep in their back pocket and use for almost any questions. Ask the participants to think, pair, share and create a full group poster with these. Encourage participants to hang these in their classrooms to remind both themselves and their students to use this kind of thought-provoking language when communicating.  | Poster paper  |