Day One Theme – Mathematical Practices

8:30 – Joint Meeting

9:00 – Housekeeping and Expectations/Objectives – PPT (David) (10 minutes)

Didn’t talk about all 3 math task slides (seemed like over kill at start of day) May come back to them on Wed.

9:30 – Dan Meyer Video and Discussion (20 minutes)

Title of video is “makeover in the math classroom” after watching video asked them what was Dan suggesting the makeover needed to look like.

10:00 – Mathematical Practices (Word Strips) (Note: Use the practices protocol to have teachers look for mathematical practices used in the tasks presented today.) (60-70 minutes with a build in break when they finished up their poster)

Went well – after task each group presented their organizational choice we discussed any thoughts they had about the differences in their organization, then read the 8 mathematical practices discussing any ideas and making clarification as we read each one. – (could save time by not reading the practices as a group – we were fine on time so and liked how it went)

10:30 – Break (see above)

10:45 – Task Time I (70 minutes for both parts)

Went well - brought out different ways to find the volume, made sure to discuss how making the 1” cube into ½” and ¼” cubes affected the volume , make sure you recognize all strategies when they share. Part 2 – went faster, emphasis on using fractions in computations and answers, What size cubes and why is the emphasis.

Did not pass out observation protocol until this point – we asked them to identify practices that occurred during the task and provided evidence of when the practice occurred. We asked them to share what they observed… we did this at the end of each task today.

When we completed a task we identified which standard this task met. They looked it up.

11:30 – Lunch

12:15 – Balanced Mathematics – with Damon’s Videos (25-30 mins)

Brain stormed “What is BALANCED mathematics” – I did not use Damon’s power point. I do not know the background necessary to present his power point in a knowledgeable way and make it dynamic. We asked them to think about “what they learned (will learn) from the video about…. Math, math learning, math teaching.” We showed the 12ish minutes of the video and discussed what they learned. Focusing in on need for balanced mathematics. A good question asked was “If this student had been exposed to balanced mathematics from K-present, what would have been different about her interview. I would have liked to have made the ideas of learning procedures and learning concepts more explicit at this point. (4th slide on Damon’s power point – I would use this slide to wrap up the discussion.)

1:15 – Task Time II (~45 minutes)

Did not do the anticipatory set. Will be sending along modifications made to this task emphasizing questions that could be asked. Generally went well.

2:00 – Break (Hard)

2:15 – Task Time III (40 minutes)

Only did first ½ of or archeological dig. Did not discuss perimeter…

Mathematical task has a typo… should read 4 trees at least 15 feet apart. I did not emphasize the first or second coordinates needing to be the same. This allowed for discussion of what type of polygon – all are quads-why, and how do we know diagonal and slanted distances between vertices are greater than 15. Wiki should have corrected version.

3:15 – Evaluation – Parking Lot (10 minutes)

Discussed Protocol – Why did all 8 practices keep showing up as we worked the tasks? – its because of the nature of the tasks. (could bring back the ppt slides on tasks at this point)

Also discussed – Today we did a task for NS8 – Is this all I need to do in my classroom for NS8?

Participant asked earlier in the day about how to select topics for tasks – he talked about using activities the school/class is doing. We brought this idea back up and added to it bringing in other curriculum topics, science, social studies, health… etc.

3:30 – Dismiss

Day One Handouts – Bound Participant Guide, Mathematical Practices Observation Protocol, Elementary Mathematical Practices sheet

We passed out handouts as participants needed them not as a packet. There were several things we did not pass out, ie: word strips, wordstrip facilitator notes, Damon’s power point, welcome letters and what to expect(I intended to ask if anyone needed a copy and overlooked this).

Day Two Theme – Cognitive Demand

8:30 – Cognitive Demand Task

Task went well.

We asked them to think about the Cognitive Demand before they started the task(using the hand out of bulleted items) and then discussed actual cognitive demand after the task. Was the demand what you thought it would be? Why or Why Not? It works out nicely today that one of the tasks is a level 2. It allowed us to talk about “Does every task you do need to be a level 4?”

Second half of the day we discussed what facilitator/teacher moves affect the cognitive demand and how(raise/lower) (there is a copy of a list of ways Cognitive Demand are raised/lowered behind one of the last tabs in their binder)

Hard VS Cognitive Demand: It was natural to have the discussion that “hard” did not necessarily mean a high cognitive demand at some point during our cognitive demand discussions. If it doesn’t come up be sure to bring it up.

Real World Connections VS Mathematical Connections: We also had a discussion during the day about what “connections” meant – just because it uses a real world context does it make connections? Connections actually does indicate “mathematical connections”.

9:00 – Task Time IV

10:00 – Break

10:15 – Task Time V

11:30 – Lunch

12:15 – Constructive Struggling Task (using World Café Protocol) (Use four levels of cognitive demand protocol to determine level of cognitive demand for the tasks today.

They loved the article – I will bring a copy of my Faster is Smarter and Adding It Up texts next time I facilitate! Didn’t have table cloth for protocol – used chart paper at each table instead.

1:15 – Task Time VI

2:00 – Break (Hard)

2:15 – Task Time VII

3:15 – Evaluation – Circle, Square, Triangle

We collected these read them and gave them back to them the next morning. They appreciated getting them back since they had made goals on them.

3:30 – Dismiss

Handouts for Day Two: Cognitive Demand Task, Task Analysis Guide, Constructive Struggling Article, World Café Protocol, Evaluation

Day Three Theme – Elements of a Balanced Mathematics Classroom

8:30 – Three Part Lesson Design – video and task

Showed the middle section twice as suggested. In today’s evaluation most said they did not need to see the middle section twice.

9:15 – Task Time VIII (took more than 45 min)

10:00 – Break

Don’t remember which of these tasks it was but the Part 2 question is not on the task or in the facilitator notes. The information is: Dad sets a budget for the day. $500… now what are some possible amounts for our vacation?

10:15 – Task Time IX

Did the Smarter Balanced Assessment PPT here. There was time and it allowed for the USOE to come in in the afternoon if the group had any questions.

11:30 – Lunch

12:15 – Task Time X

1:00 – Task Time XI

2:00 – Break (Hard)

2:15 – Writing Mathematical Tasks (Thinking Through a Lesson Template)

3:00 – Sources for Mathematical Tasks (revisit Dan Meyer, Internet, text word problems, etc.)

3:15 – Evaluation (What worked, what didn’t, what do you need more of?)

No hand out for the Evaluation – Had participants use a piece of paper and tri fold it and label each section. Got some great feedback on this one!

3:30 – Dismiss

Handouts for Day Three – Three Part Lesson Design, LED Form (5 forms), Thinking Through a Lesson Template (5 each), Sources for Mathematical Tasks, Evaluation

There was not a handout for Sources for Mathematical Tasks, There were not 5 copies of the LED (we didn’t see a place to fit the LED in – we thought maybe at the end of the day with a discussion of self reflection or peer reflection but we did not have the time.) There were not 5 copies of the TTLP (here or in their binder).

Day Four Theme – Writing Your Own Mathematical Tasks

8:30 – Replay Dan Meyer video on how to create a mathematical task (just that segment)

8:45 – Review the “Thinking Through a Lesson” template

9:00 – Writing Mathematical Tasks

10:15 – Break

10:30 – Writing Mathematical Tasks

11:30 – Lunch

12:15 – Sharing Mathematical Tasks

1:00 – administration came in for discussion. We thought we were only doing this once… we did it twice. Our feedback to USOE: we would rather have a lot of admin in the room and only have the discussion once than to have two sessions. Participants wanted to share their tasks with each other. The participants even said… rather than the discussion lets just let the admin do the tasks with us. ☺ There is a good purpose for the discussion and it went better the first time than it did the second. We also noticed that when the admin for a particular person was there they participated in the discussion better. One of the questions has a long list… this was a difficult part to move through for me. I suggest that if it is a topic they have already addressed just ask if there is any more they’d like to add or have thought of.

2:00 – Break (Hard)

3:00 – Course Evaluation and Wrap Up

3:30 – Dismiss

Handouts for Day 4 – Thinking Through a Lesson Templates (5 each), Course evaluation

Task Order:

Geometry 2

Number System 8

Geometry 3

NS1

RP3c

RP3d

EE2c

EE8

EE9

SP2, 3, 4

SP5