

## End of Day Wrap-Up Session Notes – 6/8/2010

Three different ways of thinking (of getting from A to B)

1. Make a plan (no problems) – linear without no variations
2. Go way outside, start back, eventually end
3. Start out, get the feeling out of sorts, correct, know what to look out for, be careful, change direction: being good a zigzagging & heeding
  - a. Tipping point
  - b. Activities about climate change

What should we keep our eyes on – thoughts, insights, comments, observations?

Context – for thinking about the students: a meeting, context, and fit together (where do I fit)

Why important: for making a connection with the student

A personal, human experience

What the children explain is inference of understanding of experience

Make sure you define the road = context (so you know what to heed)

Gender differences for defining the road

Teaming for understanding

Constructivism vs. Instructionalism – I think we should also have to impart knowledge too

Constructivist activity with an instructional approach

When is it right to instruct and when is it the right thing to apply another method – finding the right place and being honest

Appreciation of students of approaching topic of climate change without political context and impact of students via footprint

Is presenting facts facilitating or instructing?

Activity/exploration before concepts/explaining – observing the students during the activity to know what is needed

Is that the method everyone is using?

Mostly, I think of myself as a facilitator. They are doing the work. Then, a tipping point when they ask the question. Then a place for instruction. Underlying principle: kids are responsible for doing the work. Their choice, their responsibility.

Is the discussion of a tipping point a theoretical conversation? Therefore, regardless of the tipping point there has to be a baseline?

So a tipping point is more a journey. It's something that can't be engineered as one teacher in a classroom.

Predominant mode of question/answer period is an individual student responding to a teacher or vice versa. So the concept of the tipping point gets at the quality of that interaction. So how is the teacher responding to that student? How do they respond when a student is correct/incorrect? When do you provide or pull out more information? How do you know what the kid knows?

What's the most difficult part of facilitating?

For teachers, it's not talking too much. Then it changes into instructional instead of facilitating.

When they have to talk – help them find the answer without giving them the answer.

If you are facilitating students toward a goal, you have to really understand where they are.

In terms of complexity, domain and content knowledge is high. Then how do I teach the knowledge. Then at tipping points, you've got 25 individual minds.

So part of facilitating a tipping point is multifaceted.

What is the best question?

When trying to teach engineering, they expect to get it right the first time. Engineering is a process. So for facilitating an engineering education is teaching the fun of figuring it out.

Development lab feedback on toolsets:

1. Did find some ways to use WEDO with Energy kits without computer, but better if more ways with computer; Extension of USB for WEDO kit
- 2 & 3. Some question of how the box works (more tech details). How does it work for collection? What instructions are going to be included (especially pertaining to battery). Did find joule meter only works on 1, would have been good at .1 partway through a short experiment. When wanted to use the data logging with high technic and rcx sensor blocks it didn't work.
4. SAM was great, very user friendly. Great for the shy child. Helps the student become more confident when expressing themselves differently and increases learning.
5. No Comments