Beyond the Podium

May 20, 2016

Divergent Thinking

Discussion Leader: Elif Ackali

Students Teaching Students (Learning Assistants – LAs)

Creative Campus grant

- Creative Scholar in Residence
- Visited the School of Theatre and Dance—specializing in Dance
  - Dance research is fundamentally different than the way research is done in Engineering
  - Advances in Engineering could have an impact in the Arts and vice versa
- Weekly 3 hour meetings at the college level
  - Play and explore
  - There is no “one correct” answer
- She is taking dance classes, art classes, cartooning
  - Elif’s struggles in those classes help her to see how students might struggle

Sketch activity

- Fast Drawing
  - Unusual images
- What is happening?
  - Need to choose an element to capture
- Identify a pattern to look at and not get distracted
  - Pick one thing that you can play with
- What are you doing?
- How do you feel?
  - Engineering students get competitive and their
  - Students think it is fun at the end
  - Sometimes students ask why they do this
    - If they do not ask, Elif doesn’t necessarily tell them
  - Helps them to step outside of their normal way of thinking

Divergent Thinking Class

Class meets once a week for 3 hours

- Invite and encourage them to do an activity that they have never done before
  - Contributing to “social capital”
  - Can help to find meaning
- Do you see how this plays out as Engineering students go through their program?
  - She is seeing this during the semester—students can identify more uses for objects
  - Students document the different ways they are thinking about problems
  - Teaching as part of Innovation Institute
- People who succeed in academia are not necessarily those who are open to different experiences
- How do you critique work?
  - Grading is a challenge
  - What is important is full student participation in the work
  - How committed are they?
For every activity the same four questions that encourage reflection

- Course is more like a studio class
- Consider separating “assessment” from “grading”
  - Students help to define the project criteria
  - Challenges with students thinking that the default grade is an “A” and that they “lose” points
  - Students have a hard time differentiating between “effort” and “results”
- You don’t have to be an excellent sketcher to sketch something
- Today’s students tend not to use their sense of touch
  - The pen/paper experience can be freeing for students
  - Elif dedicates two weeks to “sensing”
- Most Engineering students are strong mathematically
  - We may ignore other ways of viewing the world
  - Giving students physical objects to support an activity where they list different ways to use the object tends to result in more uses
- In medical science, stepping back and looking for the patterns within the big picture can be helpful
- Elif now has 32 students in the course—with dance in the course, it can’t go above 40 students
  - Looking for ways to scale up
- Elif has a repository of exercises that folks can use in their courses to encourage outside-of-the-box thinking
- Engineers need more empathy skills
  - She’ll have students tape their hands to emulate arthritis

Other Activities

- 100 questions:
  - give them a word and ask them to respond
  - Pick the 10 of the most important ones
  - Is it an open question or closed question?
- Colored hats:
  - Black hat is emotion/cautionary
  - Blue is process oriented
  - White is data
  - The way I form a question invites different types of ideas
- Divide Class into four sections
  - Observing:
    - Watch people in a coffee shop
    - Use all senses
  - Learning:
    - Learn from yourself
    - 100 questions → learn from others
  - Questioning:
    - Ourselves
    - Other people
  - Experimenting
    - Dance exercises
    - Drawing exercising
    - End of course: use animal systems to design
- There can be Engineering solutions to social issues
• Within levels of bureaucracy it can be challenging to get people to understand things beyond the routine tasks