#### WOTP Mentoring: Communities of Practice Day 2 – November 15, 2016

## Exit Card Feedback

#### Today, I really enjoyed: (46 responses)

- 1. Hands on
- 2. All of the activities: working together, strategizing, hands-on, etc.
- 3. The hands-on activities were fantastic
- 4. Interactive workshop; bridge activity was great for team-building
- 5. Everything! Super interactive
- 6. The bridge workshop
- 7. Being creative. LOCATION! LOCATION! LOCATION!
- 8. The hands-on workshop
- 9. Collaborating with people I had never met before
- 10. Yes! Excellent!
- 11. The hands-on activities; activity/space changes; interactive; teamwork; project-based
- 12. Working with a team. The workshop very informative also fun
- 13. Both activities
- 14. The hands-on activities
- 15. Hands-on experience; useful tools
- 16. The hands-on projects. I also enjoyed working as a team and learning from one another
- 17. The total hands-on experience
- 18. All the practical and interactive activities
- 19. The creative projects that we did, like the bridge challenge
- 20. Being so engaged: hands-on, forces thinking, forces flexibility, openmindedness and allows "Yes, I did it." Sharing and fun!
- 21. The friendly group of people; easy to get to location; great lunch!
- 22. Working in a team to build our bridge
- 23. The hands-on activities
- 24. Building a homopolar motor and the bridges
- 25. The hands-on quality
- 26. The hands-on aspect: bridge-building, afternoon of different materials, discovering
- 27. The energy, passion; the bridge activity
- 28. Bridge-building
- 29. Learning with others; hands-on/competition re: bridge-building; will definitely use this in my Inventions/Science-Simple Machines Unit
- 30. Everything I love making things and the fact that these have purpose how you showed connections between the activity and the subjects.
- 31. Discussing ideas with people doing the same things as I am; Being handson
- 32. I loved the hands-on and doing.
- 33. The discussions about makerspace
- 34. Teambuilding + hands-on activities
- 35. The hands-on open mind approach . . . the mindset
- 36. The hands-on activities & open-ended "freedom"

- 37. The bridge project struck me for its adaptability to different subject/learning areas; Less powerpoint, more practice
- 38. Hands-on activities!
- 39. The hands-on. We shared a great deal. Putting myself in my students' shoes.
- 40. Hands-on activities. Change "mind set".
- 41. Building a bridge with my team.
- 42. The bridge challenge. Opportunities to share ideas. Experience with hands-on activities.
- 43. Building the bridge as a team.
- 44. Hands-on activities. Downtown location (easy to get to).
- 45. The bridge building exercise was interesting.
- 46. Being hands-on and seeing the projects come to life. Loved the different stations and the challenges.

## Something that could be improved upon: (39 responses)

- 1. Just would have liked even more time to "play". <sup>(2)</sup> Also . . . any good references/links to the critical/background science material.
- 2. Space: with all of the activities we had, there wasn't much space.
- 3. Nothing!
- 4. This was the best WOTP Mentoring day to date! Well done!
- 5. Nothing!
- 6. The location & room space
- 7. Better, easier, more accessible location.
- 8. Great!
- 9. The functionality of the space. Instructional "guide" so I could see what to do, as well as <u>see</u> what it could look like; I needed the theory to the practice.
- 10. No complaints! A small suggestion would be to provide more time to do more activities.
- 11. The room was very small and uncomfortable.
- 12. More space. Only thing I can think of  $\odot$
- 13. In terms of space, it was a little tight, but it was all right. ©
- 14. Less claustrophobic surroundings.
- 15. The space.
- 16. Bigger space!
- 17. Squishy location in the main room.
- 18. A little more information on the entire process. It felt a little disjointed. I walked away not feeling confident to take back info.
- 19. A little bit more time.
- 20. Smaller groups.
- 21. Lack of space.
- 22. Give a cost list of each station's supplies.
- 23. How to make the materials more accessible to schools with low budget.
- 24. Get outside!!! Some handouts for "how-to" in the classroom i.e. supplies.
- 25. I would love to have a 2-day (or more) activity.
- 26. More days like this but for different subjects.
- 27. The organization of the day. Less time on single bridge activity and more on providing time to figure out multiple entry points.
- 28. Less time being spent on one activity. At times purpose was lost.

- 29. A little bit more space, physically speaking.
- 30. More kits to allow people to try out different challenges.
- 31. Our school is divided into 50 min. subjects areas in WOTP, so more subject-specific activities may have been useful.
- 32. Online resources to support the teaching of activities in our own classrooms.
- 33. Building a bridge is excellent. However, it is part of the elementary science and am worried that the activity may become redundant. Also, I ended up working alone in the afternoon, and could see how some students must feel. Also, because I was alone which did not bother me, except another group left me no room for my testing.
- 34. Space small room in A.M.
- 35. Less help when working on projects.
- 36. Flexibility for project creation. At times it felt like there was a "right" way.
- 37. Less time on 1 activity (bridge). More organized times/teams for afternoon activities.
- 38. All good.
- 39. Need for more detailed instructions.

# Something new I learned today: (42 responses)

- 1. How to engage students, let their imagination take its course.
- 2. The different projects that could easily be used in class.
- 3. Controlled chaos is not necessarily bad.
- 4. Turtle Art.
- 5. About bridges.
- 6. Doing different and fun activities can be done at a low price and easily.
- 7. Already knew about MakerSpace (Google conferences) but this was something I'd asked for! Thank-you.
- 8. The importance of head, heart and hands.
- 9. Circuits; batteries; trusses; mixing crafts & science; how to sew (Mom would be proud).
- 10. How to sew a circuit! I can use this project with my students.
- 11. How circuits work.
- 12. Ideas for projects.
- 13. Everything was useful.
- 14. I learned how to make a basic homopolar motor!! ©
- 15. Fun small projects I can actually use in my science class.
- 16. All the different activities that I could actually use in my classroom.
- 17. New engaging activities that are WOTP appropriate.
- 18. Basic robotics & gaming (obstacle course).
- 19. I can use a motor. ©
- 20. I learned that I could be in an uncomfortable situation and do well. As I was already doing STEM challenges in my classroom.
- 21. At times you can improvise to get the same results.
- 22. Building a basic homopolar motor.
- 23. Hydraulics are fun!
- 24. Makey-makey program.
- 25. That something so simple can be engaging.
- 26. Tech stuff.
- 27. Using robotics/circuits

- 28. That I can make some really awesome bridges and robots. That I am more of a control freak than I thought.
- 29. Where to get this material.
- 30. Sewing & circuits. Cross-curricular outside of the box.
- 31. 3D doodlers aren't worth the money.
- 32. Different mindsets have a significant impact.
- 33. How possible circuits are.
- 34. The importance of different entry points.
- 35. Popsicle sticks are fun.
- 36. Technology/robotics is not over my head.
- 37. How much I have forgotten about how some of my students may feel and appreciate hands-on.
- 38. Bridge building techniques.
- 39. That it's okay (good!) to give students time to create and think for themselves.
- 40. Fun hands-on activities.
- 41. Not totally new to me, but the collaboration required for the bridge building was a good experience.
- 42. Applying science concepts in hands on projects. Example: circuits, bridge concepts (trusses)

## Something that I would like to see/learn at a future session: (38 responses)

- 1. Hopefully, links to the "where to buy" and "exactly how to do".
- 2. More subject-specific hands-on activities (e.g. ELA)
- 3. More math activities to engage students
- 4. More time for teachers to dialogue/share strategies
- 5. More hands-on projects
- 6. More creativity
- 7. Continuing to share info. and activities as well as learning how to do fun activities.
- 8. Budgets? Grants" How to fund activities.
- 9. More sessions like this.
- 10. Who won the \$20 million contract on the bridge? Lesson plans. Art education. ELA mixing with art.
- 11. Sessions that are interactive. Learning in a comfortable environment that is non-threatening.
- 12. PJM strategies.
- 13. In the future, more projects for teachers by teachers (those are always fun and exciting!)
- 14. More projects for math-haters!
- 15. More ideas of hands-on activities.
- 16. More challenges boxes! I'll make one at school.
- 17. More creative materials to bring back into my classroom. More on I Pads and using them in my classroom.
- 18. More things that can be used for everyday life. Apps to use in classroom.
- 19. More hands-on activities.
- 20. How to do projects more geared to social sciences: Geo & Hist. specifically.
- 21. The same, but with a bigger focus on artistic activities.

- 22. More non-technology activities, because some classes have very little accessibility to technology.
- 23. Less technology, more cheap supplies/dollar store supply maker spaces.
- 24. Resources, resources... thank-you so much!
- 25. More complex machines.
- 26. Social science ideas. Team building activities.
- 27. Activities that are less reliant on technical objects. Some of it seems more science related.
- 28. More opened up ideas and spaces. This was a very good workshop.
- 29. The connection of program(s) to the makerspaces challenges.
- 30. Even cheaper strategies, reusable ones. Activities with reusable Lego/K'NEX rather than glue guns. Strategies for getting students to try even when they do not want to buy in from the get-go.
- 31. How to write grants/get funding for technology in the classroom.
- 32. More time to share what works in "your classroom".
- 33. Practical or hands-on projects that can be used to explain different competencies students see in the classroom.
- 34. Assessment ideas for math.
- 35. More projects like this with clear links to competencies.
- 36. Ideas with technology. Explain how to relate hands-on activities to curriculum.
- 37. More hands-on exercises.
- 38. Creating games for English, History, and Autonomy etc. as well.