**Session 9: Using Project-Based Learning to Deepen Learning and Engagement**

**Objectives**

Teachers explore using project-based learning as a strategy for deepening engagement and learning.

**Guiding Questions**

* How can we create experiences for students that are relevant, engaging and more like the real world?

**At a Glance**

In this session, participants experience a design challenge (Marshmallow Tower Challenge) to understand what part of that type of learning is engaging to students. Then, participants learn more about Project-Based Learning by watching a video, moving on to discuss their own experiences with and thoughts about this type of teaching. Teachers then explore resources for Project-Based Learning and begin to generate their own ideas and plans for adapting the strategy for their classroom.

**Facilitator Notes**

This session presents a major strategy that many teachers have heard about, perhaps even tried, but many find daunting or difficult. Teachers who have the desire, ability and curricular freedom to pursue exclusive PBL will find this session affirming their thinking of its merits. For others, it is important to emphasize the five keys of PBL – and that it can occur in projects and lessons large and small. Note that parts of this session require A/V equipment and allowing teachers access to internet resources. Encourage teachers to bring laptops, or conduct this session in a computer lab where those resources will be present.

**Usage of materials from PBLWorks (such as the video we used in our pilot test and recommend) requires a free registration. Because of PBLWorks’s Terms of Use, we were not able to include the actual video clip in this PowerPoint, but provide the link to it on** [**www.pblworks.org**](http://www.pblworks.org/) **which will become available to users after they register. It will take a bit of preparation time to set up a presentation to use that 4 minute video.**

**Materials**

Marshmallow Tower Challengekit (bags of 20 pieces of uncooked spaghetti, 1 yard of tape, 1 yard of string)

Handout 9.1 (Marshmallow Tower Challengedirections)

Handout 9.2 (The 5 Keys of Project-Based Learning)

Handout 9.3 (Teacher Reflection & Next Steps)

**Procedure**

**Introduction (5 minutes)**

Facilitator reminds participants of the overall goals of these professional development sessions: to increase student motivation to complete assignments and take ownership of their learning. Explain that this session will explore one strategy – Problem-Based Learning – as a path to student engagement and deeper learning. Then, instruct participants that they will engage in a design challenge project named the Marshmallow Tower Challenge.

**Marshmallow Tower Challenge(20 minutes)**

Divide participants into groups of four. Participants have 10 minutes to construct the tallest free-standing structure they can that can support the entire marshmallow at the top of it. Participants are free to use (or not use) any of the materials provided: 20 pieces of uncooked spaghetti, 1 yard of tape, and 1 yard of string.

After congratulating the winning team, explore how and why participants were excited and engaged in this project. What made it engaging, what made it fun? What did the participants learn from this experience, even though there was no specific, explicit instruction? Explore with participants how activities like this could be used in their own classroom – to build team among students, to explore our assumptions or as a way to introduce design thinking.

**Project Based Learning Video (10 minutes)**

Have participants watch the video on project based learning in this link:
<https://my.pblworks.org/resource/video/it_really_actually_changed_my_life>

After the video, lead a discussion with participants (as a large group or breaking it into smaller groups of 3-5) around the video. Some thought-provoking questions are provided in the PowerPoint but if they fail to prompt discussion, ask participants about the students in the video: What motivated/inspired them? What did they enjoy about project-based learning? What did educators say about how this changed their praxis?

After reflecting, review the 5 keys to PBL. Many of these keys relate to other topics and sessions previously covered by this series of professional development: sessions around assessment, making authentic learning that connects to the real world, cooperative learning and other ways to structure student collaboration, providing autonomy and choice as a way to make learning student-driven.

**Exploration of Resources (15 minutes)**

This segment requires access to computers and internet. Have teachers register (free) and explore the resources at <https://my.pblworks.org/projects>. This includes a project search tool, where teachers can explore a database of various project-based units and lessons already developed, as well as project design rubrics and planners for them to design and craft their own projects.

**Reflection & Next Steps (10 minutes)**

After they have had time to explore the resources, bring participants back together and review the 5 keys of PBL and the various resources provided and available. Then, provide participants with Handout 9.3 (Teacher Reflection & Next Steps) and have participants consider and craft how they can take the knowledge and resources gained and apply it to their own classroom.

***EXTRA SLIDE – If you want teachers to volunteer to share from their practice during the final session, the final slide in the PowerPoint deck can be used/edited.***