



### 3<sup>RD</sup> ANNUAL PROJECT SHOWCASE NIGHT

Thursday, March 16, 2017  
6-8pm

Wheaton High School  
12401 Dalewood Drive  
Silver Spring, MD 20906

Teachers –

Remember to hold on to your best examples of student work so they can be a part of our Showcase Night!

## Collaborative Discussion Techniques

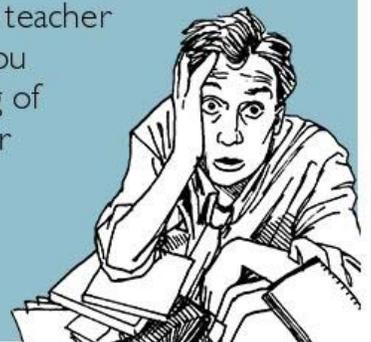
- Think–Pair–Share:** Think-Pair-Share is a great way to get brains thinking about a topic. Knowing that they will be expected to share, students will be encouraged to fully develop their thoughts and opinions. Use this technique to introduce a topic and ask provoking questions that challenge students to connect material back to their own experiences.
- Critical Debate:** The key to a successful debate is choosing a great/interesting topic and providing the students with solid research to support their side. If the students' sides were pre-selected, give the students a chance to share what they really feel at the end of the debate.
- Jigsaw:** To help students clarify what was taught and learned, provide a segmented worksheet for students to take notes on. Having each group prepare a visual helps students organize information and gives visual students a chance to shine.
- Note Taking Pairs:** Pairing students to compare notes increases student's working memory resources, while helping students retain information (Barkley et al., 2005).  
*Tips and Advice:* Use this technique to keep minds engaged and retention levels high when you have less time for larger group activities. This simple, yet effective technique keeps minds sharp and is especially great for helping students work through dense content.
- Save the Last Word:** This discussion technique encourages meaningful classroom conversations by eliciting differing opinions and interpretations of text. Asking students to think about their reading stimulates reflection and helps to develop active and thoughtful readers. Save the Last Word for Me also prompts classroom interaction and cooperative group discussion. <http://www.theteachertoolkit.com/index.php/tool/save-the-last-word-for-me>

<http://www.peertutoringresource.org/2016/03/the-why-and-how-of-collaborative-learning/>



This video is right on point with our beliefs for PBL at Wheaton HS. Check it out at: <https://youtu.be/tE6WHn0-cSQ>

There is no tired like end of the year teacher tired... Unless you count beginning of the year teacher tired.



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## Use These Three Data Points to Ensure Successful PBL

Savvy practitioners know that gathering and interpreting data is vitally important to the success of their students. This is true for a traditional classroom, for sure, but in order for a project based classroom to run smoothly, it is crucial to gather data and use it to inform your approach. Project Based Learning takes some skills that aren't readily apparent, and a report card certainly won't provide the necessary data; however, there are ways to gauge a group's strengths and weaknesses, providing teachers with the information we need to plan the best approach to PBL.

### 1. Collaboration and team work skills

I used to think I was that "cool" teacher who let students sit wherever they wanted--no restrictive assigned seats from this progressive teacher. However, a study by Angela Hammang found, "when carefully crafted seating charts were in effect, teachers were twice as successful reaching students and the attainment of lower ability students was doubled." With this type of data, I changed my thinking, and I now use what I call "strategic groupings." I explain to my students that there will be different seating arrangements, depending on what is needed for the activity. Sometimes I assign them to a table, and other times I assign them to a specific seat, which are all numbered.

### 2. Divergent thinking skills

Another skill that is important in a project based classroom is the ability to problem solve and to approach a "burning question" or problem from a wide variety of perspectives. I first learned about divergent thinking in Dr. Roger Firestein's Creative Problem Solving Class at SUNY Buffalo. We learned that creativity is a skill, and like any other skill, it can be taught, practiced, and improved upon.

The way I gauge my students' divergent thinking skills is to play games like Taboo, where they are given a word or phrase with the goal of getting their partners to guess the word, but without using a list of "taboo" words. This causes them to think about a common word or idea in a divergent way. You can use the actual game, or, sometimes I'll prepare slides (like the one below) with vocabulary words on them or words from our lessons, as well as the "taboo" words, and have one student sit with his/her back to the board and the rest of the class gives clues, causing the students who are providing clues to the student in the "hotseat" to diverge their thinking.

Have fun with your students, but always have your clipboard in hand. Watch and note which students are stuck at the literal level and can't think abstractly, or others, perhaps ESL students, who might not have the language skills. Then, when you are planning for PBL, keep these limitations in mind and provide extra scaffolding in the brainstorming stages.

### 3. Communication and speaking skills

The final data point that I consider crucial at the very beginning of the year is students' speaking skills. Are they crazy nervous, confident, or somewhere in between? In my classroom, the end result of each unit is a presentation with an authentic audience. It is really shortsighted to simply assume that the students will be ready for such a major event. The best way to find out the level of speaking skills your class is starting from is to create fun and low-pressure ways to get in front of their peers. I do "impromptu" speeches during the last few minutes of classes. Keep a list of topics on slips of paper, and the only goal is to talk for 1 minute:

- How would the world be different if you were the size of an ant?
- Create a new holiday.
- Convince us to buy the shoes you are wearing.
- Describe the best possible meal, beginning to end.
- Who, from history, would you like to bring to dinner?

It is great to get to know your students, but also keep the clipboard handy to note any speech issues, debilitating shyness, or tendency to speak inappropriately. This is the time to gather data in order to plan your speaking components of future lessons. As the semester progresses and skills grow, add other criteria; for example, speak on the topic for a minute without using filler words like "so" or "um."

Data is only as good as what you do with it. Your data clipboard should be filled with observations about your students and their abilities from these learning experiences. You are then able to plan mini-lessons, remediation, or extension activities to support the needs of the students in your class, this year, not hunches or ideas about last years' bunch. These might seem like non-traditional measures, but if you are forward thinking enough to use Project Based Learning, you'll find these learning experiences to be awesome opportunities to learn more about the strengths and needs of your students, all while building trust and creating a culture of academic risk-taking.