Classroom Set Up in a Thinking Classroom

Roundtable Discussion With Peter from Mathodology

Random Groups:

- Students are more willing to offer an idea.
- Students stop caring who they're with.
- Social barriers come down.
- Mobilized empathy occurs.
- Teachers should not assign roles. Students will use roles as excuses to not think.

Knowledge Mobility:

- Knowledge moves between groups and within groups.
- Boundaries between groups are porous.
- Students think on their own and collectively.
- Never have students present their own work. Students don't listen to students present their own work.

VNPS:

- Does the workspace impede or support thinking?
- Students will risk sooner, risk more, and risk longer on an erasable surface. It's safer.
- Vertical spaces:
 - Everyone in a group looks at the work in the same orientation
 - Knowledge mobility
 - Easier to communicate
 - Sitting students feel anonymous and then disengage
- One marker per group forces more collaboration
- Peter has never found a classroom where he couldn't find ways to get all students at VNPS for less than \$100.00. No excuses.
- With VNPS, you see all the warts. Teachers are more likely to spot the student who is off task. When students were working at their desks, this same student was also off task, but the teacher didn't know it. Sitting and working at desks can mask disengagement and off-task behavior.

Furniture:

- How organized a classroom is can disrupt the effectiveness of the thinking.
- Peter showed students pictures of a variety of classrooms and asked: "What do you think the teacher expects in this classroom?" When students looked at very organized classrooms, they responded, "This teacher expects perfection." Students then don't feel safe to think.
- Set up a classroom for the purpose of learning instead of the purpose of teaching.

Introducing Tasks:

- The best way to give a task is verbally. Students are thinking sooner, thinking deeper, thinking longer.
- Visuals > text.
- More kids struggle to process text than kids who struggle to process verbal instructions. Those kids probably can't process text either. Their group can help support.

- Some teachers want to have a back up and put the text on the board while they present the task verbally. Results are the same. Kids don't listen.
- Get students standing and close. It's best to have students standing, loosely clustered around the teacher when introducing the task. Fewer students have questions.
- Get students thinking within five minutes of starting the math class. More thinking occurs. The longer you wait, the harder it is to get students going. It's hard to transition from being a passive receiving of knowledge to being an active participant and thinker. The longer students are in the passive role, the harder it is to become a participant.
- The teacher doesn't need everyone in the room to understand the task. If half of the students understand, knowledge mobility will take care of the rest. (In fact, if knowledge mobility is strong, six kids will do.)