Creating cultures of thinking

The 8 Forces We Must Master to Truly Transform Our Schools

RON RITCHHART
Author of Making Thinking Visible and Intellectual Character

- Expectations
- Language
- Modeling
- Time
- Opportunities
- Routines
- Interactions
- Environment
Teachers...

- Write lesson plans
- Design activities
- Put together units
- Plan assignments

What does a powerful learning opportunity look and feel like?

What specific qualities make a learning opportunity powerful with regard to students' learning?

What design principles can help us to create opportunities that contain these qualities?
Reflecting on your teaching, identify a particularly powerful learning opportunity you have created and/or helped realize for your students.

What made this experience different from other kinds of learning episodes you have led?
**Novel Application:** Applying, organizing, interpreting, evaluating, or synthesizing prior knowledge to solve novel problems or form new judgments.

**Meaningful Inquiry:** Creating new understandings and insights that go beyond the obvious and extend one's current understanding.

**Effective Communication:** Expressing, representing, justifying, supporting, and communicating one's ideas, understandings, methods, and processes effectively using disciplinary tools, symbols & language.

**Perceived Worth:** Having value and purpose beyond merely doing work for the teacher. At the high end, these efforts may have utilitarian, aesthetic, or personal value & connect learning to the larger world.
**Novel Application**: Applying, organizing, interpreting, evaluating, or synthesizing prior knowledge to solve novel problems or form new judgments.
Meaningful Inquiry: Creating new understandings and insights that go beyond the obvious and extend one’s current understanding.

Reproductive vs. Original

Taming the Wild vs. Wilding the Tame

Perplexity

Challenge + Support

Low Threshold, High Ceiling, Wide Walls

Require Thinking
Dealing with Horses

A man buys a horse for $50. He sells that horse for $60. He buys that horse back for $70. He sells that horse for $80.

What’s the financial outcome of all these transactions?

He loses $20!
He earns $20!
He earns $30!
He loses $10!
He breaks even!
He earns $10!

How are you making sense of this problem? What do you think the result is...and what makes you say that? Use picture words, diagrams to convince your neighbors.
What makes you say that? Show in words, symbols, or pictures how you made sense of this situation.
I just plused and minwed each thing to get my answer for example

\[
\begin{align*}
-50 & \quad \quad 600 \\
60 & \quad -70 \\
\hline
10 & \quad -10
\end{align*}
\]

If you add these ups that equels 0 then you add a +10 this makes it equal a positive $10$
A. He earns $30.
B. He earns $20.
C. He earns $10.
D. He breaks even.
E. He loses $10.
F. He loses $20.
G. Other (you don't know where he started w/ money so you can't say if he has gained or lost in transactions. What makes you say that? Show in words, symbols, or pictures how you made sense of this situation.)
pictures how you made sense of this situation.
What here is convincing & what is unconvincing?
So where’s the learning?

Considering multiple perspectives
Finding Differences
Asking myself “What if...?”
Positive & Negative Numbers
Deciding if your answer makes sense
Deciding what to do with the given information
Making sense of the situation
Checking on the reasonableness of my problem solving
Verifying & comparing strategies
Examining and evaluating claims, finding support or disputes
Connecting your sense making to others

Whole Numbers
Sums
Decomposition
Base 10
Computation
Effective Communication: Expressing, representing, justifying, supporting, and communicating ones ideas, understandings, methods, and processes effectively using disciplinary tools, symbols & language.

How did the focus on communication enhance the students’ learning?

What difference did having an audience for that communication make?
How did the focus on communication enhance the students’ learning?

What difference did having an audience for that communication make?
**Perceived Worth**: Having value and purpose beyond merely doing work for the teacher. At the high end, these efforts may have utilitarian, aesthetic, or personal value & connect learning to the larger world.

**What gives a task...**

- VALUE?
- MEANING?
- PURPOSE?

...to students?
"Everybody Has a Story" Documentary Assignment
Lobsterman by Toby Choyt
Connect past & present
Challenge misconceptions
Focus on process
Choice
Differentiated
Situated in the Community
Social Commentary
They are an “Event”
Audience
Making a Contribution
Ownership
Problem Solving
Reflecting on Experience
Relevant
Teacher Passion
Connect Teachers with Students
Focus on Success
Incremental Improvement
Feedback-Coaching
Comfort and Safety
Support Risk Taking
I B L E W I T!
I tried something new and innovative and it didn’t work as well as I wanted.

THIS COUPON ENTITLES ME TO BE FREE FROM CRITICISM.

I’ll continue to pursue ways to help my students be successful.