

“All learning integrates thinking and doing. All learning is about how we interact in the world and the types of capacities that develop from our interactions.”

Peter Senge et al

Presence: An exploration of profound change in people, organizations, and society

Power Teaching

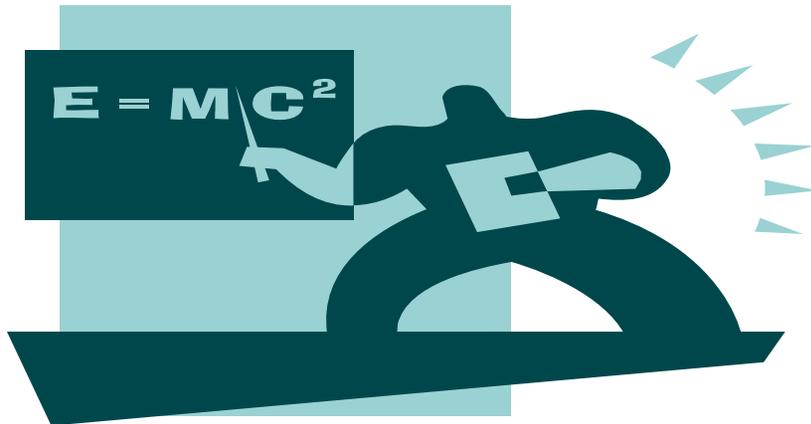
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All the bus kids waited in the cafeteria for rides across town. Among these magnet school for the arts kids was Alice. A fifth grader whose height and weight more resembled a second grader, Alice's condition affected her speech as well as her ability to write or draw.

But the Assistant principal smiled her into a response. Without further prompting, Alice sat up in her wheel chair and said “the free bird leaps on the back of the wind and floats downstream til the current ends. And dips his wings in the orange sun rays and dares to claim the sky.’ ”

Alice participates in a fifth grade, inclusion class of mixed ability children--8 out of ten children in the class are classified as special needs or low achievers.

In her school, greater than 90% of the children receive free lunch. Many come from homes where single parents earn less than \$10,000 per year.

Yet, Alice and her classmates are co-creating the next phase of the power teaching model.

One year earlier in our nation's capital, 135 tenth graders in a technology high school participated in the prototype. They engaged Harvard University's culture of thinking framework in seven 90 minute workshops. So they learned the language of thinking—words such as evaluate and metareflection, words that not only tell what kind of thinking is required but suggest a standard for doing that thinking well.

They learned that thinking dispositions could help them form habits of mind that support thinking, learning, and writing in the 21st century.

- 1. good thinking takes time**
- 2. organize your thinking**
- 3. reason carefully and clearly**
- 4. think broadly and adventurously**
- 5. be curious and questioning**

These high school sophomores came in contact with mental management (metacognitive strategies for thinking and writing), strategic spirit, higher order knowledge, and transfer for thinking.

To experience transfer of the six dimensions in the framework, the students participated in the “Martian Village 2030 interdisciplinary research project. They took on an additional seven 90 minute workshops to learn the big ideas of research and wrote research papers.

Finally, 115 of the initial students in the six classes delivered power point slide shows in the Martian Village 2030 mini conference, May 2005. A mixed ability group ranging from gifted to special needs, they gave video taped talks based on their research papers.

The Washington prototype set up two versions for exploration in Savannah. One is going on at a high school near Savannah State University. The other unfolds in an elementary school for performing and fine arts.

The Washington prototype for creating a standards driven thinking classroom has become the power teaching model.

Power Teaching

Power Teaching seamlessly weaves standards, a specific framework for teaching thinking, specific research based strategies for improving student achievement, and critical inquiry for teacher reflection.

For example, the prototype fifth grade class combines district *standards* and the National Board for Professional Teaching Standards in a comprehensive view of what students should know and what teachers should know and be able to do.

Students engage the Tishman, Perkins, & Jay framework for *teaching thinking* as well as thinking routines and works that make their *thinking visible*.

Regularly, they use a set of Marzano's *research based strategies* for improving student thinking.

For example, in a final assessment of "Mae Jemison: Space Scientist"—Houghton Mifflin's theme 2 in its fifth grade anthology--they

designed TV storyboards, text and pictures, to capture the main idea and key details of her biography. Then, they worked in pairs to act out their storyboards for an audience of peers.

In brief, they used Marzano's summary strategy in combination with nonlinguistic representations and feedback with a rubric for product and process.

The fourth factor in the power teaching model serves as a means of reflection for the teacher and coheres with the National Board for Professional Teaching Standards belief that "Accomplished Teachers" be reflective practitioners.

In the D.C. prototype, the critical inquiry had been "How do students think to learn?" That led to the possibility of ways to make thinking visible. (See Fluellen: "Think to Learn" ERIC data base, 2006.)

So in Savannah, the critical inquiry has become "How do learners make thinking visible?"

The four, interactive factors of the power teaching model provide a comprehensive approach for all members of the learning community. It is a model for learning more not a prescription for teaching.

True to the African proverb "one who learns, teaches," learners (teacher and students) learn by thinking and doing.

But heart matters keep the model alive.

Heart Matters

Marzano's research based strategy for recognition of student effort as a tool for improving student achievement serves as software to his hardware strategies such as summarizing.

Since the recognition program began in October 2006, one special needs student has made the top ten six weeks running.

Mention on the scholars list only comes when a student demonstrates proficient critical or creative thinking in mathematics, reading, science, or ELA/Social studies. So it is hard to get a star on the chart paper publishing the names of class scholars.

Another student well known for outrageous behavior in earlier grades has been among the top three scholars weekly.

Systematic recognition of standards based or personal best achievement and consistent adherence to school rules provide the context needed to support ways students can make their thinking visible and co-create the power teaching model.

But when it comes to heart matters, a deeper framework is needed.

Students in this class often curse each other, play the dozens, instigate fights, and express what Black psychologists such as Cobbs and Grier, Francis Cress Welsing, Na'im Akbar, and Alvin Poussaint have long identified as self hatred.

Such students laugh in the face of a school code of conduct that tells them more about what they can't do and less about what they can do.

They bring to mind Aesop's fable.

The sun and wind argued one day. Each thought the other was more persuasive.

The wind said, see the man down there on that Chicago street. I can make him take his coat off."

So the wind blew and blew, but the man fastened his coat tighter.

The sun came out shining brighter and brighter. Soon the man took off his coat.

Persuasion beats force.

Based on the ancient Toltec wisdom tradition brought to light by spiritual master Miguel Ruiz, four agreements can guide the learning community toward evolving, 21st century human beings living in an era of Friedman's planet flat.

Don Miguel Ruiz's agreements are these:

- 1. Be impeccable with your word.*
- 2. Don't take anything personally.*
- 3. Don't make assumptions.*
- 4. Always do your best.*

Students and the teacher strive to live by these agreements.

It is not unusual for a child to say "Mr. F, you are not being "impeccable with your word."

Each one is encouraged to speak positive words about others. And during the instructional program, they often examine the lives of people who look like them—people who have overcome harsh lives to stand among the world class achievers.

They see people such as Maya Angelou and Cornell West who overcame harsh beginnings and words that cut.

They relate to the child in Gwen Brooks' words of power in her poem "The life of Lincoln West."

All his life, seven year old Lincoln West had been called "black, ugly, and odd." His parents, friends, kindergarten teacher all thought him to be the "sure fiber" and rejected him.

The poem peaks when two men in a movie theater exclaim "there, that is exactly what I mean...not like those diluted Negroes you see so much of these days...the real thing."

Lincoln turns the name meant to hurt on its head. He says proudly, "after all, I am the "real thing."

When called names or when something hurtful emits from a mouth, Ruiz reminds us that the target person does not need to take the words personally. Such words often say more about the speaker than the spoken to.

While ten year old students might not yet have the power to reframe as Lincoln West did, they can learn to not take personally the words of others.

In addition, teachers and students alike often make assumptions instead of checking out the facts. So everyday, the class replaces assumptions (and robust misconceptions) with direct observations and experiences. They learn to seek truth, beauty, and goodness.

And "always do your best," like the other agreements, extends the mind and heart.

Daily, members of the learning community hear "Always do your best to make your thinking visible." Always do your best to follow class rules." Think to learn as way of always doing your best. Always do your best to walk along the breezeway in an orderly manner. Always do your best to be impeccable with your words, not take

words from others personally, and seek the truth.

By giving a lot of "teachable moments," the four agreements form the *heart intelligence* of power teaching.

Making Thinking Visible

On the other hand, an ancient Chinese proverb says: "It is not our feet that move us along. It is our minds."

How do learners make thinking visible? That critical inquiry moves the class as they engage the power teaching model.

Harvard Project Zero researchers Shari Tishman and Patricia Palmer say "What exactly is visible thinking?"

Then, in their article, "Visible Thinking," they offer this definition: "Visible thinking refers to any kind of observable representations that document and support the development of an individual's or group's ongoing thoughts, questions, reasons, and reflections. Mind maps, charts, and lists, diagrams, worksheets all count as visible thinking if—and this is an important if—they reveal learners' unfolding ideas as they think through an issue, problem, or topic." (See Harvard University Project Zero Research Center www.pz.harvard.edu)

When children make their thinking visible, teachers are better able to help them think more clearly, and the children can discover better ways of thinking as well.

Three tools for making thinking visible are as follows:

- 1. thinking routines (micro)**
- 2. thinking routines (macro)**
- 3. creating works (oeuvres)**

Micro thinking routines are questions that frame a type of thinking. They can be introduced without a lot of directions. For examples, consider how the following might be inserted into a classroom discussion of any core subject or the arts:

- ❖ What's going on here?
- ❖ What makes you say so?
- ❖ What's another angle?
- ❖ What do you think will happen?
- ❖ What's at the core of this?
- ❖ How does this fit?
- ❖ Why does this fit?

For example, the teacher challenged students examining Jacob Lawrence's "Builder" with "What is going on here?" and "What makes you say so?"

Then, once students had made several observations of the painting and backed up the observations with reasons, they took on "What is another angle? That meant not only seeing the painting from different angles of the viewer but from any one of the subjects in the painting: the women sewing in the top right corner, the huge worker in the middle, his hammer. (How did the painting look from the perspective of an inanimate object?)

Taken a few at a time, a teacher can introduce the micro thinking routines instantly in mathematics as well as music. Such routines can be used frequently the rest of the year.

Even underachieving students can learn to practice the higher order thinking built into the fistful of micro thinking routines.

Macro thinking routines such as Marzano's "similarities and differences" or the Tishman, Perkins, & Jay framework for creating a culture

of thinking, in contrast, take time to introduce and sustain.

They can include games for creative thinking such as Harvard's MUSE games for art and critical squares games for critical thinking.

Unlike the micro routines, macro thinking routines require directions and significant class time. But they provide regular, performance assessments over time. Finally, like the micro thinking routines, they can be used all year long.

A primary macro routine in the 5th grade class organized with power teaching is David Perkins' knowledge as design.

His is a specific method for critical thinking that claims any human made object or idea is a "structure adapted to a purpose." Therefore, the idea object will have a purpose, structure, model case, and argument.

These translate into simple questions a PreK kid might engage.

Take an ordinary object such as a pencil.

1. What is it for?
2. What is it made of?
3. What is it like?
4. What makes it work or does it work well?

Take a research based power point slide show project like the ones students are doing with their Jacob Lawrence research project and the simple questions become the following:

Why did Jacob Lawrence tell stories with his paintings?
What characterized his method of painting?
How are his paintings like the poems of Maya Angelou? How are they different?
Will people in 2061 still think Jacob Lawrence is a great American painter?

These are the questions students took on as an outcome of their examination of primary and secondary materials in researching the life and works of Jacob Lawrence as the second of four research projects in the “Four Faces of Freedom” Bernstein unit for English Language Arts/Social Studies.

More importantly one telling point Marzano et al make in their book on research based strategies is the claim that when students practice a strategy at least 24 times, they gain an 80% comprehension of that strategy.

In the case of a macro thinking routine such as David Perkins’ knowledge as design method of critical thinking or Robert Marzano’s “summarizing” as a research based strategy for improving student achievement, students in the power teaching 5th grade class will practice more than 24 times by the end of the school year.

And then eminent thinker Jerome Bruner offers another take beyond thinking routines.

A French cultural psychologist, Ignace Meyerson first enunciated an idea that today, a quarter century after his death, now seems both obvious and brimming with educational implications. Briefly, his view was that the main functioning of all collective cultural activity is to produce ‘works’—oeuvres, as he called them, works that, as it were, achieve an existence of their own.

When students create works (essays about qualities of characters and real people in a Houghton Mifflin theme, base ten models, science fair projects, power point slide shows, KWL logs, T-charts, Artful learning responses to masterwork poets (e.g. Maya Angelou’s “When Great Trees Fall”), comparing algebra properties of addition with properties of multiplication, dramatic performances, performances of Tai Chi, summaries of nonfiction works, examinations of paintings with thinking routines, drawings of masterwork paintings like Jacob Lawrence’s “Builder,” cause and effect chain pictures about the revolutionary war, Venn diagrams about vascular and nonvascular plants or a comparison between Niki Giovanni’s “Knoxville Tennessee” and Langston Hughes’ “Dream Variation,” solving a problem about exponential growth as illustrated by Australian rabbits in 1859, using the Big6 model for research, and creating television story boards to enact the life of Mae Jemison, creating a book of poetry, they are making their thinking visible.

Oeuvres show what students know. Oeuvres build new understandings deeply and systematically. Oeuvres allow for exploration of student understanding with Piaget’s reflecting abstraction model.

In summary, power teaching in Thomas Friedman’s flat world connects standards, thinking, strategies, and inquiry. Seldom have these factors been explicitly combined into a whole instructional program.

So the emergent question is this: *By 2054, how might the average class in Savannah Chatham County Public Schools exemplify power teaching?*

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