

## Acquiring Knowledge & Student Engagement Part II

Welcome Back!

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## Marzano/Washington Connection

**Washington Criterion 2: Demonstrating effective teaching practices.**

- 2.1: Interacting with New Knowledge
- 2.2: Organizing Students to Practice and Deepen Knowledge ↵
- 2.3: Organizing Students for Cognitively Complex Tasks ↵
- 2.6: Noticing when Students are Not Engaged ↵

## Acquiring Content Knowledge

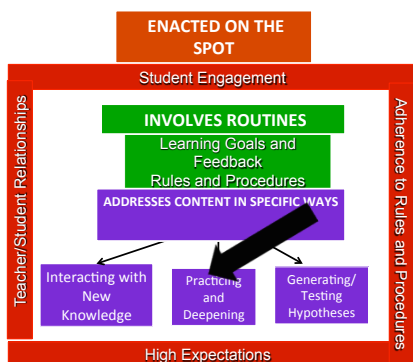
Today:

- Practicing and Deepening (DQ3)
- Generating and Testing Hypotheses/Cognitively Complex Tasks (DQ4)
- Student Engagement (DQ5)
  - *The Highly Engaged Classroom*
    - Is this important?
    - Can I do this?

**Question 3:** What will I do to help students practice and deepen their understanding of new knowledge?

**Wenatchee Criterion #2**

## The Art and Science of Teaching



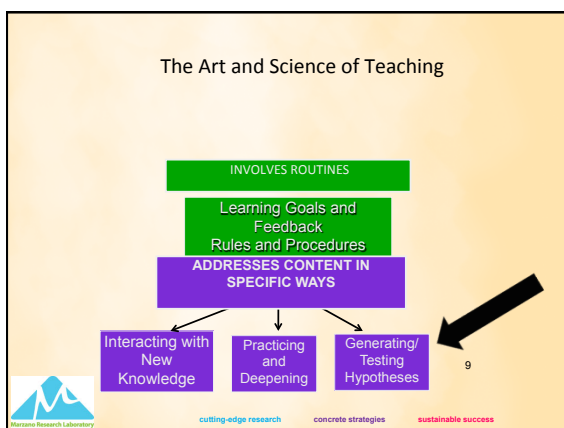
If the segment involves knowledge practice and deepening activities what do you expect to see?

### Practicing and Deepening:

- What do I typically do to review content?
- What do I typically do to organize students to practice and deepen knowledge?
- What do I typically do to use homework?
- What do I typically do to help students examine similarities and differences?
- What do I typically do to help students examine errors in reasoning?
- What do I typically do to help students practice skills, strategies, and processes?
- What do I typically do to help students revise knowledge?

**Question 4:** What will I do to help students generate and test hypotheses about new knowledge?

*Wenatchee Criterion #2*



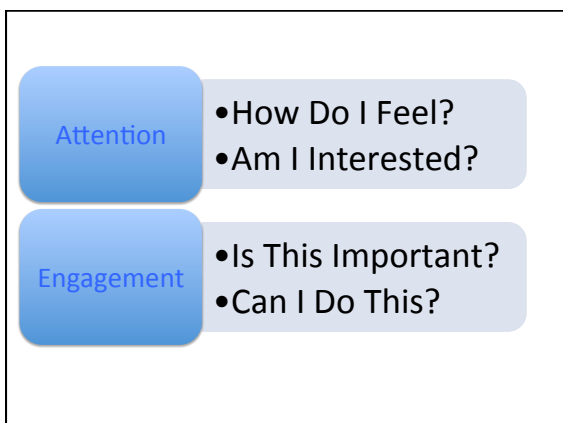
If the segment involves hypothesis generating and testing tasks, what do you expect to see?

### Generating & Testing Hypotheses

- What do I typically do to organize students for cognitively complex tasks?
- What do I typically do to engage students in cognitively complex tasks involving hypothesis generation and testing?
- What do I typically do to provide resources and guidance?

### Dr. Marzano's Four Questions






**Question Three:**

**Is this important?**

If students do not perceive classroom tasks as important, engagement will be muted or nonexistent.

Marzano, 2010, *The Highly Engaged Classroom*



**Is This Important?**

- Connecting to Students' Lives ↵
  - Comparison tasks
  - Analogical reasoning tasks
- Connecting to Students' Life Ambitions
  - Personal projects
- Encouraging Application of Knowledge
  - Design cognitively challenging tasks
  - Provide choice
  - Present real-world applications

**Connecting to Students' Life Ambitions**

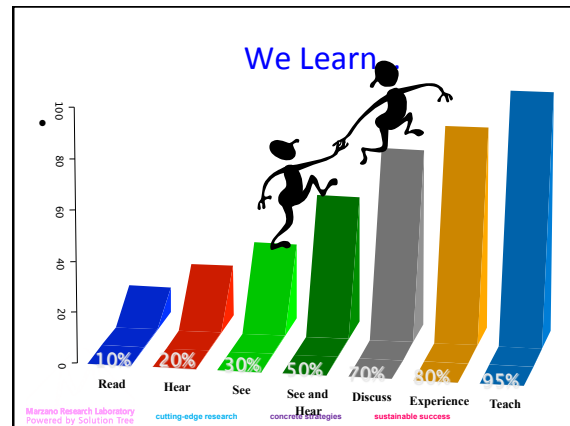
*Students may not automatically connect classroom content and activities to their life ambitions, but teachers can still integrate content and life ambitions through the personal project.*

**Personal Project**

*Students identify a personal goal of their choice and work on it throughout the quarter, the semester, or even the entire year.*

*The teacher facilitates the identification of the goal and the progress toward that goal.*

## Cognitively Challenging Tasks



## Project-Based Learning

*Project-based learning is a dynamic approach to teaching in which students explore real-world problems and challenges. With this type of active and engaged learning, students are inspired to obtain a deeper knowledge of the subjects they're studying.*

## Provide Choice

- Options for reporting:
  - A written report
  - An oral report
  - A dramatic presentation
  - A debate
  - A videotaped report
  - A demonstration or simulation
  - Using a web application

## Question Four:

**Can I do this?**

## “Can I Do This?” ...The Research

- “Self-efficacy has an effect size of .82 relative to students’ academic performance.
- **This translates to an expected 29 percentile point gain.**

Marzano, 2010

### Stated differently...

- I am not who I think I am.
- I am not who you think I am.
- I am, who I think, you think, I am.

### Question Four: "Can I Do This" .... The Research



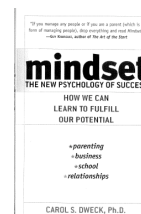
- If the answer is **"NO,"** students might lessen or abort their involvement –**even if they have positive feelings about the task, are interested in the topic, and perceive it as related to their personal goals.**

Marzano, 2010

### Four strategies can enhance students' sense of self-efficacy.

- Using effective praise and verbal **FEEDBACK**
- Tracking and studying **PROGRESS**
- Providing **EXAMPLES** of efficacy
- Teaching about **EFFICACY**

### Dweck, Mindset: The New Psychology of Success, 2007



#### Fixed mindset:

Talents are carved in stone.

#### Growth mindset:

Qualities are things to be cultivated through effort and can change through application and experience.

Dweck, Mindset: The New Psychology of Success, 2007

### Feedback and Mindset

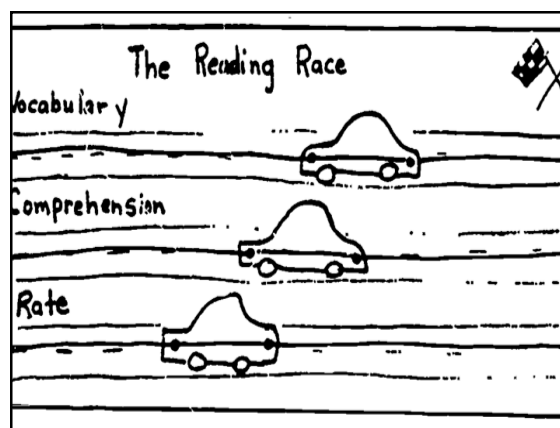
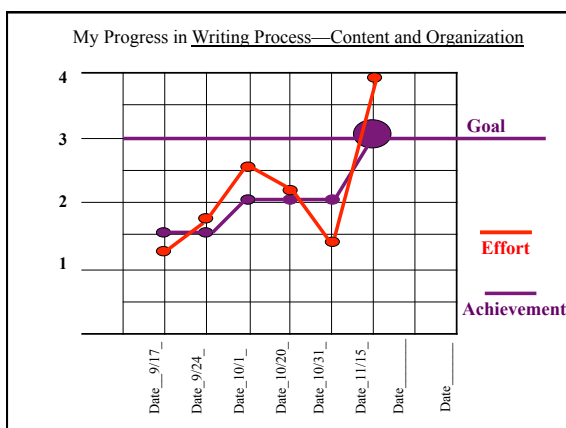
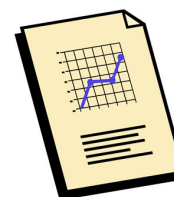
	Successful Student Performance	Unsuccessful Student Performance
Specific Aspects of the Task	Teacher points out aspects of the task that were done well.	Teacher points out aspects of the task that were done well and aspects of the task that were done poorly.
Student Effort and Preparation	Teacher comments on student's obvious effort and preparation.	Teacher comments positively about student's effort and preparation or questions student about his or her lack of effort and preparation.

Four strategies can enhance students' sense of self-efficacy.

- Using effective praise and verbal **FEEDBACK**
- Tracking and studying **PROGRESS**
- Providing **EXAMPLES** of efficacy
- Teaching about **EFFICACY**

### Tracking Student Progress

Students track progress on one learning goal.



*It is significant for students to discuss self-efficacy and study it firsthand through correlating their effort and preparation with achievement; however, everyone needs a reminder of just how powerful a strong sense of self-efficacy can be in terms of shaping one's future...*

### Quotes

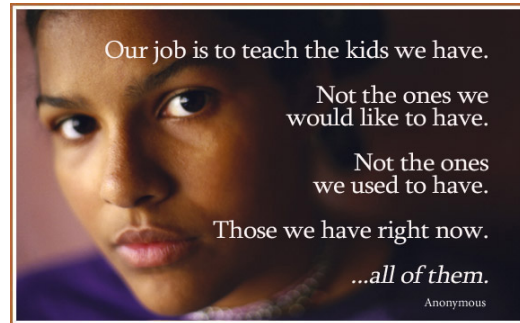
"The man on the top of the mountain did not fall there," —Anonymous

"It's not whether you get knocked down; it's whether you get up," —Vince Lombardi

"Genius is 99% perspiration and 1% inspiration,"  
—Thomas Edison

### More Quotes...

- "If you want to truly understand something, try to change it," –Kurt Lewin
- "If you done it, it ain't bragging," –Walt Whitman
- "If you worried about falling off the bike, you'd never get on," –Lance Armstrong



### Thank You!



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Evaluations

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