

Acquiring Knowledge & Student Engagement

Welcome!

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Marzano/Wenatchee Connection

Wenatchee 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 

Marzano's Design Questions 2, 3, 4, 5:

DQ2: What will I do to help students effectively interact with new knowledge? 

DQ3: What will I do to help students practice and deepen their understanding of new knowledge?

DQ4: What will I do to help students generate and test hypotheses about new knowledge?

DQ5: What will I do to engage students? 

Let's Review...

- It is reasonable to expect all teachers to increase their expertise from year to year.
- If a teacher at the 50th percentile (pedagogical skills) raised his/her competence by two percentile points each year, the average achievement of his/her students would be expected to increase by eight percentile points over a 10-year period.

The Art and Science of Teaching

1. Learning goals and feedback
2. Interacting with new knowledge
3. Practicing and deepening
4. Generating and testing hypotheses
5. Engaging students
6. Establishing rules and procedures
7. Adhering to rules and procedures
8. Developing teacher-student relationships
9. Maintaining high expectations

Fundamental Segments of a Classroom Instruction

- Segments that are **routine** components of every lesson
- **Content-specific** lesson segments
- Segments that must be **enacted on the spot**

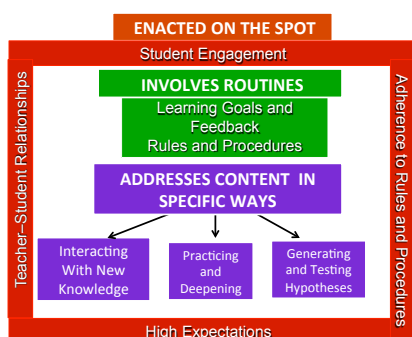
The Art and Science of Teaching

SEGMENTS ENACTED ON THE SPOT

ROUTINE SEGMENTS

CONTENT-SPECIFIC SEGMENTS

The Art and Science of Teaching



Acquiring Content Knowledge

Today:

- Interacting with **New Knowledge** (DQ2)
- **Student Engagement** (DQ5)
 - *The Highly Engaged Classroom*
 - How Do I Feel?
 - Am I Interested?

If the segment involves new knowledge what do you expect to see?

- Identifying critical information
- Organizing students to interact with new information
- Previewing new content
- Chunking content into 'digestible bites'
- Group processing of new information
- Elaborating on new information
- Recording and representing knowledge
- Reflecting on learning

Self-Audit

Lesson Segments Addressing Content					
Design Question: What will I do to help students effectively interact with new knowledge?					
Element	4 Innovating	3 Applying	2 Developing	1 Beginning	0 Not Using
6. What do I typically do to identify critical information?					
7. What do I typically do to organize students to interact with new knowledge?					
8. What do I typically do to preview new content?					

Element	4 Innovating	3 Applying	2 Developing	1 Beginning	0 Not Using
9. What do I typically do to chunk content into digestible bites?					
10. What do I typically do to help students process new information?					
11. What do I typically do to help students elaborate on new information?					
12. What do I typically do to help students record and represent knowledge?					
13. What do I typically do to help students reflect on their learning?					

Student Surveys

New Information

6. My teacher tells me when I need to listen carefully because she's saying important things.
I disagree I agree I strongly agree
7. Sometimes we work in groups in my class.
I disagree I agree I strongly agree
8. My teacher helps me remember things I already know.
I disagree I agree I strongly agree
9. My teacher teaches me new things a little bit at a time.
I disagree I agree I strongly agree
10. My teacher helps me think about what I learn.
I disagree I agree I strongly agree
11. My teacher lets me draw about what I learn.
I disagree I agree I strongly agree
12. My teacher asks me to think about what was going on inside my head while I was learning.
I disagree I agree I strongly agree

Set a Goal...

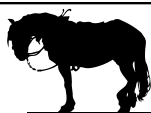
- By the end of the year, I will raise my score on _____ from ____ to ____ by _____.
- Share with your cross-town buddy/hold one another accountable.

Let's Get Started!

Student Engagement

Part I

An Old Proverb



You can lead a horse to water,
but you can't make him drink.

We learned that maybe with **reward** and **punishment** the horse will do whatever we ask.

However, consider a different goal:

"How can I make the horse thirsty?"

Engagement

From

Why aren't students more engaged?

To

How can we make our classrooms more engaging?

**“Common sense is not always
common practice.”**

—Stephen Covey

Dr. Marzano's Four Questions

- How do I feel?
- Am I interested?
- Is this important?
- Can I do this?

Attention
(Part I)

- How do I feel?
- Am I interested?

Engagement
(Part II)

- Is this important?
- Can I do this?

Question 1:

How do I feel?

HEC Book: pp. 21-56

Question One: “How Do I Feel?” The Research



“If students sense that they are not welcome, accepted, and supported in the classroom, the probability is low that they will engage in the activities in the classroom.”

Question 1 Strategies

- Effective **pacing**
- Physical **movement**
- Demonstrating **intensity** and **enthusiasm**
- Using **humor**
- Building **positive relationships**

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Pacing

- Not too slow, but not too fast
- Four areas of focus when planning pacing (Book, pages 21-24)
 - Administrative tasks
 - Transitions
 - Seatwork
 - Presentation of new content

Whip Around

What are some effective transitions, administrative tasks, and/or seatwork ideas you or your teachers use?

Begin with the person who has the most pockets.

Administrative Tasks to Lessen Stress...

- ▶ Students have specific daily tasks
- ▶ Procedures are in place and posted
- ▶ Lesson previews are posted in the same spot daily

...continued

- ▶ Rules and consequences are consistent
- ▶ Clear targets are posted and discussed
- ▶ Music is part of the classroom environment

--Marilee Sprenger, *Brain-Based Teaching in the Digital Age*

Question-1 Strategies

- Effective **pacing**
- Physical **movement** ↩
- Demonstrating **intensity** and **enthusiasm**
- Using **humor**
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“Amazingly, the part of the brain that processes movement is the same part of the brain that processes learning.”

—Jensen, *Teaching With the Brain in Mind* (2005)



“The real reason we feel so good when we get our blood pumping is that it makes the brain function at its best.... This benefit of physical activity is far more important than what it does for the body.”

—Ratey, *Spark* (2008)

Question 1 Strategies

- Effective **pacing**
- Physical **movement**
- Demonstrating **intensity** and **enthusiasm** ↩
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Positive Teacher Demeanor

- Demonstrating enthusiasm (all the time)
- Demonstrating intensity (some of the time)



Book, page 30

“Modeling may not only be the best way to teach; it may be the only way to teach.”

--Albert Schweitzer

Question 1 Strategies

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- Using **humor** ↩
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Humor (Book, pages 32-35)

- More oxygen
- Endorphin surge
- Positive climate
- Gets attention
- Increased retention
- Associated with a 40 percentile point gain in instructional effectiveness

Some Examples

Find and share funny headlines.

Question 1 Strategies

- Effective **pacing**
- Physical **movement**
- Demonstrating **intensity** and **enthusiasm**
- Using **humor**
- Building **positive relationships** ↩

Relationships (Book, pages 36-44)

Three behaviors that forge positive relationships with students:

1. Identifying and using positive information about students
2. Showing interest in and positive attention for students
3. Ensuring fair and equitable treatment of all students

Identifying and Using Positive Information About Students

Five ways to acquire and use information:

1. Class inventory
2. Class discussions
3. Parents and guardians
4. Fellow teachers
5. Extinguishing negative conversations about students

Showing Interest In and Affection for Students

Seven strategies

1. Show simple courtesies.
2. Use appropriate physical contact.
3. Listen to students.
4. Attend to special needs.
5. Make eye contact.
6. Use physical gestures.
7. Use physical proximity.

Some Ideas to Try...

- 2 x 10 (two minutes for ten days)
- 2 minute intervention

Not in My School.....

Bullying takes many forms.. Each day an estimated 160,000 children refuse to go to school because they're afraid of the physical and verbal aggression of their peers.

Define: Bullying

What is bullying?

What is bullying?

- Bullying is aggressive behavior that is intentional and that involves an imbalance of power or strength.
- Typically, it is repeated over time.
- A child who is being bullied has a hard time defending himself or herself.

U.S. Dept. of Health & Human Services, Stop Bullying Now

"How Do I Feel".... The Research

- Peer Relationships are equally as important as teacher/student relationships.
- The longer that students were rejected by their peers the less likely they were to participate in classroom activities.

Ladd, Herald-Brown, Kichel, 2009

Interventions:

Support targets
Intervene with bullies
Teach bystanders





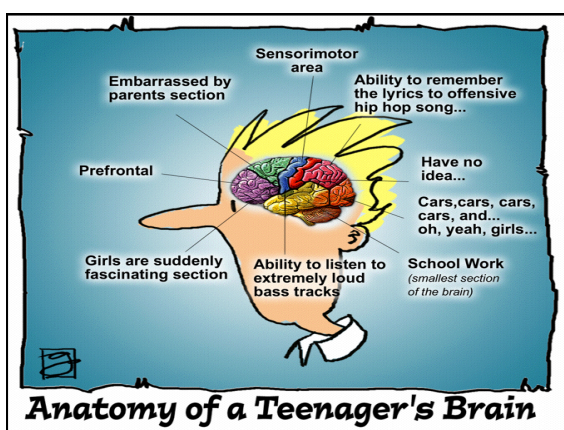
Without significant relationships, there is no significant learning.

K Ewing, Principal

Question Two...“Am I Interested?”

There is more to teaching than talking at kids.

Students have to be mentally involved for learning to occur.



Question Two: Am I interested?

1. Using **GAMES** and inconsequential competition ↩
2. Initiating friendly **CONTROVERSY**
3. Introducing **UNUSUAL INFORMATION**
4. **QUESTIONING** to increase response rates

Research on The Use of Games to Improve Student Learning

Marzano Research Lab reports the results of three meta-analyses.

Student growth in classrooms that used games ranged from a 13 percentile gain to an 18 percentile gain.

This is significant.



Games and Inconsequential (Just for Fun) Competition (57-59)

- Games should always have an academic focus.
- Regroup students so that all students experience winning and losing.
- Points are tallied but not used to increase or decrease scores or grades.

Question Two: Am I interested?

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Friendly Controversy

- When people express opposing views, their interest is not fleeting.
- Set ground rules up front.
 - Listen.
 - Don't interrupt.
 - Provide evidence for your opinion.

Friendly Controversy (pgs. 59-65)

Five examples:

- The Class Vote
- The Debate Model
- The Town Hall Meeting
- Legal Model
- Perspective Analysis

Question Two: Am I interested?

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Unusual Information (pgs. 65-70)

People are naturally curious, so atypical information within a content area can pique students' attention.

Check out:

- * The New York Times (www.nytimes.com)
- * Edutopia (www.edutopia.org)
- * PBS (www.pbs.org)
- * Trivia-Library (www.trivia-library.com)
- * Coolmath (<http://coolmath4kids.com>)

MANY RESOURCES LISTED IN THE BOOK/ON THE WEB!

Did you know?

- Take your height and divide by eight. This is how tall your head is.
- No piece of paper can be folded in half more than seven times.
- According to research, LA highways are so congested that the average commuter sits in traffic for 82 hours a year.

More...

- Falling is the most common nightmare.
- People typically spend a year of their lives looking for things they have lost.
- Most men part their hair to the left for no apparent reason.
- Americans consume five tons of aspirin a day.

Question Two: Am I interested?

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80% of what occurs in a classroom:

Cueing

Questioning

Book, pages 70-78

Research finding #1

Teachers ask many questions

Teachers asked an average of 50.6 questions;
students posed only 1.8 questions in a 30 minute period.

Encouraging teachers to encourage children's curiosity: A pivotal competence.
Journal of Clinical Child Psychology, 8, 101-106.

Research Finding #2:

Most teacher questions are at the lowest cognitive level—known as fact, recall, or knowledge.

Sattes,B. & Walsh, J., (2005). Quality questioning research-based practice to engage every learner.

Research finding #3:

- Not all students are accountable to respond to all questions.
- Teachers frequently call on volunteers, and these volunteers constitute a select group of students

Sattes,B. & Walsh, J., (2005). Quality questioning research-based practice to engage every learner.

Research finding #4:

- Teachers typically wait less than 1 second after asking a question before calling on a student to answer.
- They wait even less time before speaking after the student has answered

Sattes,B. & Walsh, J., (2005). Quality questioning research-based practice to engage every learner.

Research finding #5:

Teachers often accept incorrect answers without probing; **they frequently answer their own questions.**

Sattes,B. & Walsh, J., (2005). Quality questioning research-based practice to engage every learner.

Research finding #6:

Students ask very few content-related questions.

Sattes,B. & Walsh, J., (2005). Quality questioning research-based practice to engage every learner.

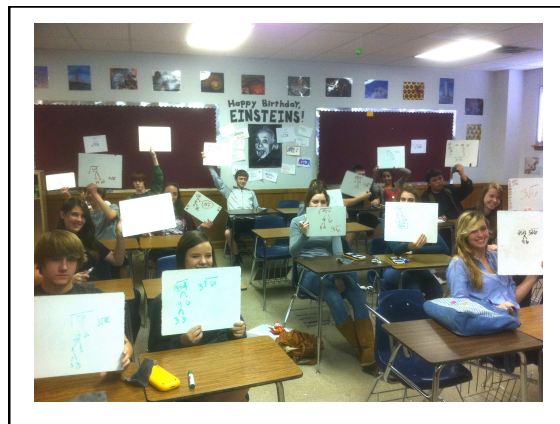
Discuss...

What do YOU do that disproves this research?

- Try some procedures that get every child involved:
 - Use Paired Responses (A/B partner response)
 - Call on students randomly – popsicle sticks with names on them
 - Using response chaining
 - Using choral responses
 - Using Quick Draws
 - Using hand signals (thumbs up/down)
 - Using response cards
 - Using response technologies

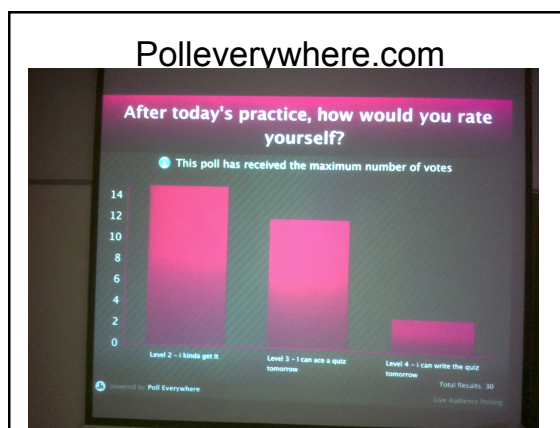
What to say instead of "I Don't Know"

- May I please have some more information?
- May I have some more time to think?
- Would you please repeat the question?
- Where could I find information about that?
- May I consult an expert? *(use the text/notes or ask additional questions)*
- May I ask a friend for help?
- May I poll the class?
- May I have a clue or fifty-fifty?



How Poll Everywhere Works

- 1 You ask a question
- 2 Audience answers using mobile phones, twitter, or web browser
- 3 Responses are displayed live in Keynote, PowerPoint, or the web



TICKET OUT THE DOOR

One thing I understand really well after today is:

I still have questions/want more information about...

I am really excited about...

How can teachers assess his/her questioning style?

- Record a complete day of teaching
 - Review in privacy
 - View MULTIPLE times

Questioning Makes the Difference, Johnson, 1990

Bottom Line:

*Teacher questioning behaviors
affect which students learn how
much.*

Sattes,B. & Walsh, J., (2005). *Quality questioning research-based practice to engage every learner.*



"I am fairly certain
that given a cape
and a nice tiara, I
could save the
world."

--Leigh Standley



cutting-edge research

concrete strategies

sustainable success

Thank You!



Evaluations

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