

**“But the Kids Say My Class
is Too Hard Already”**

**Increasing the Level of Rigor in
the High School Classroom**

LOCAL LOGIC

GAPSS Recommendations

- Increase the Rigor of Classroom Instruction
 - *On the days observed, 26% of classrooms observed were utilizing higher order thinking skills*

• ***Demonstrate more Performance Based Instruction & Assessments***

• ***Employ more formative assessments to monitor for student understanding and achievement, and differentiate instruction accordingly***

• ***Utilize more Differentiation Strategies***

“Real World” LOGIC

Leaders in the public & private sectors see a lack in the following skills in their workforce:

- Problem Solving & Critical Thinking
- Leadership & Collaboration
- Agility & Adaptability
- Initiative & Entrepreneurialism
- Effective Written & Oral Communication
- Accessing & Analyzing Information
- Curiosity & Imagination

The Criticism of Increased Rigor

- An Abandonment of Content for Process

"We Need to Use Academic Content to Teach the 7 Survival Skills Every Day..."

- Student Motivation Lacking

Remember that many students have NEVER been asked to THINK

- Teacher Fear of Risk Taking & Failure

Out of frustration & challenge comes problem solving & better teaching

- Parent Complaints & Misunderstanding

Know why you are doing things a certain way and quote the data

***HOW CAN I MAKE THIS
HAPPEN?***

Costa's 3 Levels of Inquiry

**From AVID:
Tools for Answering and Asking
questions**

Costa's Model of Intellectual Functioning

■ Level one

- questions for gathering and recalling information

■ Level two

- questions for making sense of gathered information

■ Level three

- questions for applying and evaluating information

The Three Story Intellect



Evaluate
Generalize
Imagine
Judge
Predict
Speculate
E/Then
Apply a Principle
Hypothesize
Forecast
Idealize

Compare
Contrast
Classify
Sort
Distinguish
Explain (Why)
Infer
Sequence
Analyze
Synthesize
Make Analogies
Reason

Complete
Count
Define
Describe
Identify
List
Match
Name
Observe
Recite
Select
Scan

CH-ACH
-ACH
-ACH

Level 3

Level 2

Level 1

Level 1 Questions

- The answer can be found in the text
 - Either directly or indirectly
 - Very concrete and pertains only to the text.
 - Facts about what has been heard or read.
 - Information is recalled in the exact manner/from it was heard or read.

Level 1 Signal Words

LEVEL ONE:

- **Define**
- **Describe**
- **Identify**
- **List**
- **Name**
- **Observe**
- **Recite**
- **Scan**

Level 2 Questions

- **The answer can be inferred from the text.**
 - This type of more abstract question deals only with the text.
 - Information can be broken down in parts.
 - Involves examination, analysis, causes of details.

Level 2 Signal Words

Level 2

- **Analyze**
- **Compare**
- **Contrast**
- **Group**
- **Infer**
- **Sequence**
- **Synthesize**

Level 3 Questions

- **Answer goes beyond text and could do the following:**
 - Can be abstract; may not pertain to text.
 - Asks for judgments to be made from information
 - Asks for opinions about issues
 - Judges the validity of the ideas or other products
 - Justifies opinions and ideas

Level 3 Signal Words

LEVEL THREE:

- **Apply**
- **Evaluate**
- **Hypothesize**
- **Imagine**
- **Judge**
- **Predict**
- **Speculate**

With a partner, decide what level each of these questions are...

1. ___ How does the term "manifest destiny" capture the essence of western expansion in the United States?
2. ___ In the *Catcher in the Rye*, how might Phoebe, years later, describe Holden to her children?
3. ___ Which states seceded from the Union to form the confederacy?
4. ___ Which of the characters in *Great Expectations* suffered the most?
5. ___ How can we express the equation $2x(4y-5y)=3y=26$ in three ways?
6. ___ In *Native Son* how does Bigger Thomas' violence against his gang members reveal deeply, rooted insecurity and fear of the people?

The levels for each of these questions are...

1. 2 How does the term “manifest destiny” capture the essence of western expansion in the United States?
2. 3 In the Catcher in the Rye, how might Phoebe, years later, describe Holden to her children?
3. 1 Which states seceded from the Union to form the confederacy?
4. 3 Which of the characters in Great Expectations suffered the most?
5. 1 How can we express the equation $2x(4y-5y)=3y=26$ in three ways?
6. 2 In Native Son how does Bigger Thomas’ violence against his gang members reveal deeply, rooted insecurity and fear of the people?

The Thought Filled Curriculum

Arthur Costa

Educational Leadership, Feb. 2008

Provide Students Guidance and Opportunities to Learn How to Think

Humans are born with the capacity and inclination to think. Nobody has to teach us how to think just as no one teaches us how to move or walk....

[But consider] ...a superb ballerina, tai chi master, or gymnast needs years of practice, concentration, reflection, and guidance to perform intricate maneuvers on command with seemingly effortless agility.

EQ: How do you know that your students need to learn how to think?



Talk with an elbow partner

Costa's 5 Themes to Shape a Thought Filled Curriculum

- Learning to think
- Thinking to learn
- Thinking together
- Thinking about our own thinking
- Thinking big

1. Learning to Think

- Skillful thinking is hard work and must be cultivated
 - Students need to be intrigued by relevant, generative, and conceptual knowledge
 - The deeper knowledge a learner has the more analytical, experimental, and creative are that learner's thought processes

1. Learning to Think

- Make thinking skills explicit by using cognitive terminology in instruction
 - “So how are you **analyzing** the problem?”
 - “How would you **compare and contrast** problem A with problem B?”
 - “Now that you have solved this problem in two ways, can you **create a synthesis** of both to generate a new application for solving more complex problems?”

1. Learning to Think

- Use visual tools and model problem solving, decision making, and investigating
- Generating and testing hypotheses
(see Marzano strategy on SIP Blog)
- Learning to think requires “Habits of the Mind”

The 16 Habits of Mind

by Costa and Kallick

- **Persisting**
- **Thinking and communicating with clarity and precision**
- **Managing impulsivity**
- **Gathering data through all senses**
- **Listening with understanding and empathy**
- **Creating, imagining, innovating**
- **Thinking flexibly**
- **Responding with wonderment and awe**



Tell your elbow partner how your students have used one of these habits in class recently

The 16 Habits of Mind (continued)

by Costa and Kallick

- **Thinking about thinking (meta-cognition)**
- **Taking responsible risks**
- **Striving for accuracy**
- **Finding humor**
- **Questioning and posing problems**
- **Thinking interdependently**
- **Applying past knowledge to new situations**
- **Remaining open to continuous learning**



Tell your partner how your students could use one of these in your class this week.

2. Thinking to Learn

- “Humans don’t get ideas; they make ideas.”
 - Knowledge is a constructive process
 - Students create a model or metaphor derived from personal knowledge
- Pose challenging, content embedded questions and problems that tax the imagination and stimulate inquiry
- Invite students to assess their own and others assumptions
- Value students’ viewpoints by maintaining a safe nonjudgmental classroom atmosphere

3. Thinking Together

- Learning is reciprocal
 - Individuals influence groups and groups influence individuals
- Students need to learn to think collaboratively, not just individually
 - Relax their grip on certainties of their own opinion and opening their minds to new perspectives
 - Transcend their self and become part of the whole

3. Thinking Together

- Teach students to learn to listen with understanding and empathy
 - Focus mental energy on understanding others
 - Summarize and paraphrase others' thoughts
 - Empathize
 - Monitor clarity in communication
 - Set aside judgments, solutions, and autobiographical responses

4. Thinking About Our Own Thinking

- First, recognize how we are thinking
 - Much of our thinking is based on our own embedded thoughts
 - We need to closely examine our assumptions, our limited history, or our mental models

4. Thinking about our own Thinking

Questions to raise when confronted with perplexing, ambiguous situations:

- What do I already know about the problem, and what resources do I have available or need to generate?
- How can I approach this problem flexibly?
- How might I look at the situation from a fresh perspective?
- Am I remaining open to new possibilities?
- How can I make this problem clearer, more precise, and more detailed?

Pick one or two questions that you could use in your class and share with your partner

Questions to raise when confronted with perplexing, ambiguous situations:

- How can I draw on my past successes to solve this new problem?
- Do I need to check out my data sources?
- How might I break this problem down into its component parts and develop a strategy for approaching each step?
- What do I know or not know?
- What might I be missing and what questions do I need to ask?
- What strategies are in my mind now?

Pick one or two questions that you could use in your class and share with your partner

Questions to raise when confronted with perplexing, ambiguous situations:

- What values, beliefs, and intentions are influencing my approach?
- What emotions might be blocking or enhancing my progress?
- How is this problem affecting others?
- How might we solve it together, and what can I learn from others that would help me become a problem solver?

Pick one or two questions that you could use in your class and share with your partner

4. Thinking About Our Own Thinking

- Spur students meta-cognition by
 - Verbalizing their plans and strategies for solving challenging problems
- Urge students to share their thinking as they
 - monitor their progress
 - evaluate their strategies
 - generate alternative strategies

5. Thinking Big

- Create the larger agenda of building a thought-filled world
 - Generate thoughtful, peaceful solutions rather than violence
 - Value diversity of differing views (cultures, races, religions, languages, political and economic views)
 - Develop awareness of Earth's limited resources
 - Engage in clear and respectful dialogue to resolve misunderstandings

5. Thinking Big

- Teachers should ask within lessons:
 - Are these concepts essential ?
 - How do they contribute to building more thoughtful classrooms, schools, communities, and world?

- Ask students to ‘think big’ when involving moral, ethical, or philosophical questions:
 - What makes human beings human?
 - What is beauty?
 - What is justice?
 - How can we learn to unite and not divide?

Costa's Final Thoughts

"If we want a future that is vastly more thoughtful, cooperative, compassionate, and loving, then we have to create it.

The future is in our schools and classrooms today."