



Differentiation in High School - Part 1

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Developed with Jessica Hockett, Ph.D.

Today's Approach

- Teachers are more likely to mimic that which has been explicitly modeled.
- Examples and experiences equip teachers to transfer ideas and strategies to their own classrooms.



SO....



...what IS Differentiation, really???

Differentiation IS...

Making sure all students get what they need to succeed and grow... even if that means different students get different work

Tailoring instruction to meet the varying learning needs of a diverse student body.

Making sure each student takes his or her appropriate "next step."

Opening Activity

- You will have three task options to choose from (they will be described on the next slide)
- You will choose and complete **ONE** of these options.
- Regardless of which option you choose, you will need to consult the definitions and pictures provided in Handout #1 to complete your task.



3 Options (Choose and Complete 1)

Choice 1 Choice 2 Analyze these

- definitions and pictures to decide which one best explains what differentiation is.
- Write a defense that explains why you think your choice is the best explanation.
- Use reasons and evidence from your own experience.

- Using these definitions and pictures as inspiration, create a new analogy or metaphor for differentiation.
- You can begin your new comparison with the phrase. "Differentiation is
- This comparison can be written or visual.

like "

- **Choice 3**
- Pick the definition or picture that makes the most sense to you.
- Then, rephrase it as practical advice you would give to a new teacher who has asked differentiate his or her classroom
- You can write in prose or create a bulleted list of instructions.

Share and Compare

Share your response with at least two colleagues at your table.

➤ If you can, try to share with 1 colleague who completed the same task as you did AND 1 colleague who completed a different task that you did.



Differentiation is NOT...

Just different



Differentiation IS...

Different routes, same goals



Common Goal:

Evaluate and represent "Differentiation" **Choice 1 Choice 2 Choice 3** Using these definitions Analyze these definitions and and pictiures as pictures to decide

differentiation is. Write a defense that explains why you think your choice is the best explanation.

which one best

explains what

- Use reasons and evidence from your own experience.
- inspiration, create a new analogy or metaphor for differentiation. You can begin your new comparison with
- "Differentiation is like "
- the phrase,
- This comparison can be written or visual.
- Pick the definition or picture that makes the most sense to you.
- Then, rephrase it as practical advice you would give to a new teacher who has asked you how to differentiate his or her classroom.
- You can write in prose or create a bulleted list of instructions.

Differentiation is NOT...

An all day, every day occurrence



A once in awhile "event"



Differentiation IS...

A response to evidence



Responding to *Evidence* from Assessment

<u>Assessment</u>: Students were given 3 word problems and asked to set up and solve each.

Evidence from Results: Some students "got it" by setting up and solving all 3 correctly. Some students made errors in either set-up or in solving. Some students made many errors in set-up and solving.

Task for Pattern 1

You solved all of these equations correctly.

Now make up 3 equations for others to solve: 1 that is harder than those you just solved, 1 that is at about the same level, and 1 that is easier.

Task for Pattern 2

[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

Task for Pattern 3

The highlighted portions of each equation show where you made errors. Determine what those errors were & fix them.

*Adapted from Wiliam (2011). Embedded Formative Assessment

Differentiation is NOT...

Writing individualized lesson plans for every student



NUMBET & MOCKETT IN 2019

Differentiation IS...

Uncovering & responding to patterns



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Patterns in *Readiness*

<u>Assessment</u>: Students were given 3 word problems and asked to set up and solve each.

Patterns

Pattern 1: "Got it" (set-up and solved all 3 correctly)

Pattern 2: "Made Some Errors" (in either set-up or in solving)

Pattern 3: "Made Many Errors" (in set-up and solving)

Task for Pattern 1

You solved all of these equations correctly.

Now make up 3 equations for others to solve: 1 that is harder than those you just solved, 1 that is at about the same level, and 1 that is easier.

Task for Pattern 2

[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

Task for Pattern 3

The highlighted portions of each equation show where you made errors. Determine what those errors were & fix them.

....

dapted from William (2011). Embedded Formative Assessment

Patterns in *Learning Preference*

Analytical Thinking

- Analyze these definitions and pictures to decide which one best explains what differentiation is.
- Write a defense that explains why you think your choice is the best explanation.
- Use reasons and evidence from your own experience.

Practical Thinking

- Using these definitions and pictures as inspiration, **create** a new analogy or metaphor for differentiation.
- You can begin your new comparison with the phrase,
 "Differentiation is like."
- This comparison can be written or visual.

Creative Thinking

- Pick the definition or picture that makes the most sense to you.
- Then, rephrase it as practical advice you would give to a new teacher who has asked you how to differentiate his or her classroom.
- You can write in prose or create a bulleted list of instructions.

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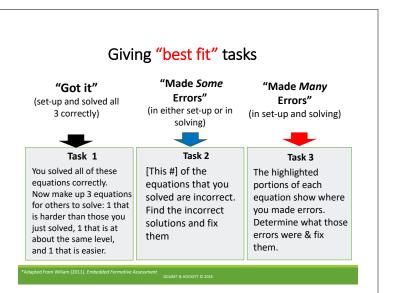
Differentiation is NOT...

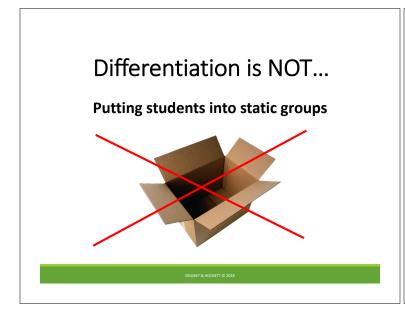
Just giving "less" and just giving "more"



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Differentiation IS... Finding tasks and experiences that are the best "fit"





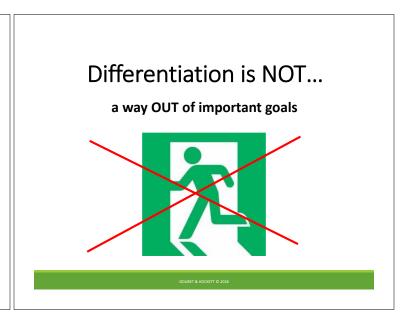




Pictures of students on magnets help this Teacher move students into groups quickly and flexibly.

m a classroom at Hubbard Woods School in Winnetka, IL

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Differentiation IS...

A way UP for all students.

It's making sure each student takes his or her own "next step".



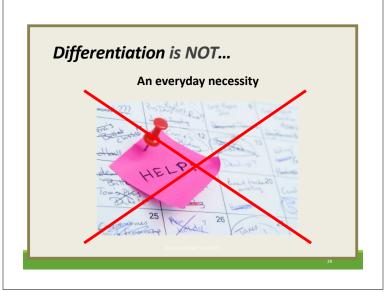
Turn and Talk

- Which of these ideas about differentiation are familiar to you?
- Which of these ideas about differentiation are new to you?



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Good Differentiation is NOT... Appetizing vs. Unappetizing

Learning Objectives

Students will UNDERSTAND THAT...

- Metaphors and similes allow us to <u>communicate</u> meaning in ways that normal language cannot.
- Metaphors and similes <u>communicate</u> ideas by making sensory connections.

Students will KNOW...

 Definitions of metaphor, simile, figurative language, imagery, stanza, couplet, free verse

Students will BE ABLE TO...

- Use metaphors and similes to convey descriptions
- Write in a given stanza format

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Formative Assessment (given previous class)

Name:

Period:_

- 1. What is a "metaphor"?
- Give at least two examples.
- 3. Explain why song-writers and poets use metaphors.

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Warm Up Journal Prompt

All Students write in response to the following prompt:

"Describe yourself in such a way that someone who had never met you would feel as though they knew you really well after they read your description."

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Tiered Tasks (Differentiated by Readiness)

Gave Strong Examples and Explained the importance of Metaphor

- Read your journal entry and circle the descriptions of yourself that you believe are the most important.
- 2. Choose something to compare yourself to that captures all of these aspects of your personality. It can be something abstract, something in nature, a machine of sorts, a song, a force, a color—the only thing it CAN'T be is another person.
- 3. Write a poem comparing yourself to what you chose in step 2 without using "like or ""as". Strive for at least 4 stanzas (line lengths in stanzas can vary). Let us see the real you.

Gave weak examples and explanation of the Importance of metaphor

- Read your journal entry and circle the descriptions of yourself that you believe are the most important.
- 2. Meet with teacher for a "group huddle"
- 3. Now think of things that are like each of those aspects of your personality. These things can be abstract, from nature, electronics, colors, etc. —the only thing they CAN'T be are people.
- 4. Write a poem made up of couplets one couplet comparing yourself to each thing you chose in step 2 – without using "like or ""as". Strive for at least 6 comparisons. Let us see the real you.

I am Love – I am cherished. I am looked for often, But seldom found...

I am Love – sometimes sweet, But always with the potential To bite you in the back...

I am Love -Oh-so-precious, But you'd better believe you can see The ugly side of me...

I am Love – A big heart full of joy, A calm, quiet day with a big storm brewing, A bird soaring higher and higher Into that dangerous sky.

> ~Jasmine~ 7th Grade

I am a powder keg My anger builds until someone makes it explode. I am an eraser -

Eliminating all the bad thoughts from my mind. I am a puppy – Loyal and friendly to those I love

I am an ant –

Everyone looks down on me.

I am nothing –

No one can see me.

But I am something – Brilliant and intelligent. Who am I? Powder keg, eraser, puppy, ant, nothing, and something. I am

> ~April ~ 7th Grade

The Results

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Differentiation is the recognition, articulation, and commitment to plan for student differences.

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Talk with an Elbow Partner

- What was affirmed for you?
- •What surprised you?
- •What challenged you?



Workshop Driving Questions

What is differentiation? What are its foundational principles?

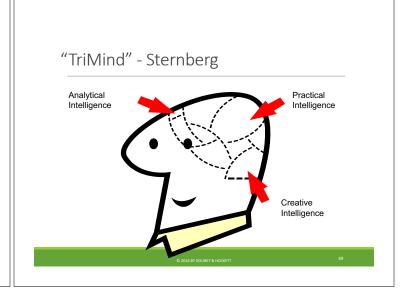
How can we discover student needs – both as a group and as individuals?

How can teachers differentiate for student readiness, interest, and learning profile?

How can teachers manage differentiation and make it "work"?

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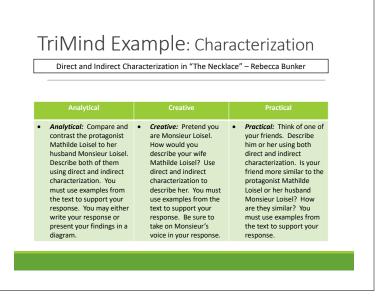
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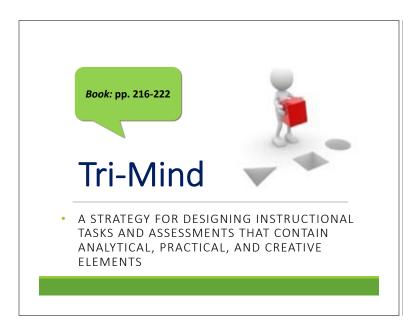


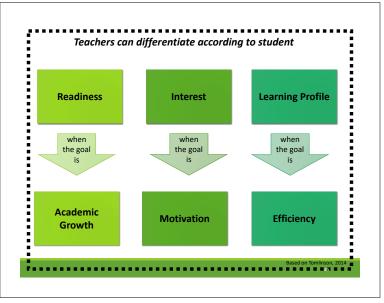
TriMind History Prompts Standard: CCSS ELA-Literacy.RH.9-10.6 Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. Read the two accounts of Read the two accounts of Read the two accounts of Present a point-by-point Recommend to a friend Take on the voice of one analysis of the details and the version of the account that you believe to be of the authors and write a ideas that differ between critique or "rebuttal" of the the two accounts. Then, most accurate. Support other account. Be sure write an analysis that your recommendation with to discuss (1) the points explanations of where your accounts differ, believe two differing (1) the differences between (2) why you believe the accounts exist and (2) how the two accounts and other author got those points wrong, and (3) what the other author credible you believe each (2) the reason behind of authors' perspectives to those differences (e.g., why one perspective is more be and why might study or consider to believable than the other). change his/her perspective.

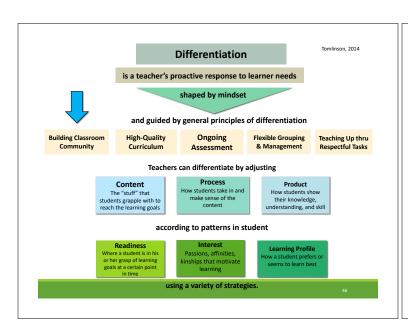
Tri-Mind Example – Geometric Sequences (Heather Waller) ask Options (Choose One) Think of some times you Present a step-by-step approach to identifying Create a new arithmetic and have used arithmetic and geometric sequence that common differences/ratios geometric sequences in extends to at least seven and extending arithmetic/ geometric sequences to your everyday life. Explain how you used these sequences and why it was Come up with a contex at least seven terms for or story about where this your classmates. Include examples with your steps. helpful and important to use sequence comes from or this process Include a defense of your Make sure to define the Design a visual to clarify the approach that argues for is soundness sequence types, identify terms in your sequence the common difference/ ratio for your sequences and Make sure to define the Make sure to define the types of sequences and common difference/ratio. types of sequences and the what these terms mean, and ns common difference extend the sequences to at Identify the common difference/ratio for your sequences.

Tri-Mind: Evaluating a Scientific Argument/Claim Use a chart, diagram, or Imagine you are going to Take on the voice of interview [this table to depict and someone impacted by author/scientist] on your analyze the strengths this [author's/ radio or TV show and weaknesses of [this scientist's] claim and regarding the scientific author's/scientist's] create a response that claims and evidence in the scientific claims. either supports or article you read. Generate evidence, and refutes the claim. In a list of questions that reasoning. Include an either case, be sure to probe his claims, evidence. explanation that reflects and reasoning. Explain why situate the claim in you are asking each vour analysis and reality and probe his question-that is, what in supports the claims, evidence, and or about the argument is conclusions you're reasoning accordingly, prompting you to pose drawing. explaining why you are each question. supporting or challenging them. Dr. Jessica Hockett '13

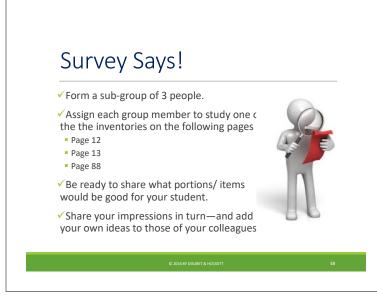






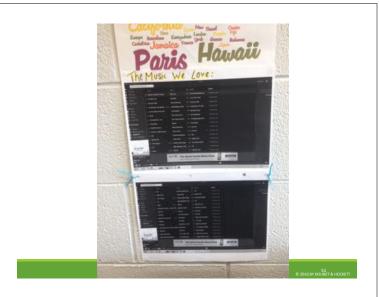


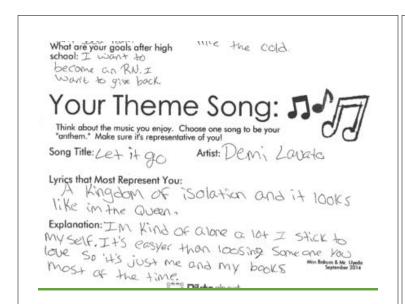


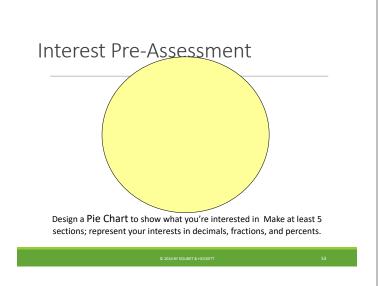




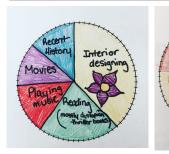














JFHMS – 7th Grade

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Pie Charts using Paper Plates – Also a Pre-Assessment on Percentages





This Assessment is aligned to

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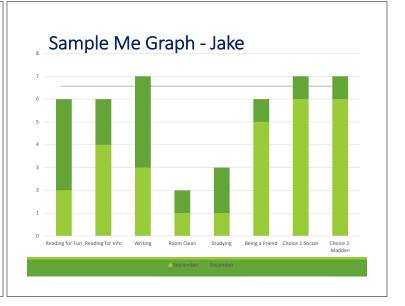
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Me-Graphs

- List items on X-axis
- · Class items (all)
- Low Stress items (all)
- · Personal choice items (individual)
- Y axis represents student's skill/comfort level
- Post Graphs and make comments and generalizations
- Adapt as year progresses

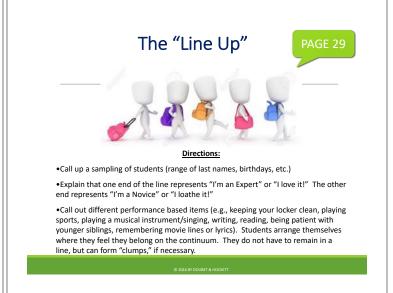
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CAT - LIVA '



Community is not just about Teacher and Student; rather, it's about Students and their Peers

BUILDING COMMUNITY





Shake 'n' Share

A strategy for engaging learners in quick conversation around different aspects of a topic or concept.

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Greeting Question: Cats or Dogs?

Explain why teaching/leading in schools is harder than it looks.

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Greeting Question: Salty or Sweet Snack?

How is teaching like popping popcorn? What else is it like? (Make a metaphor.)

Greeting Question: iPhone or Android

Discuss the advantages of a collaborative classroom from the perspective of a parent or student.

Greeting Question: Rainy Days - Thumbs UP or DOWN?

Why might collaborative classrooms be difficult for some students?

Greeting Question: Disney Land or Disney World? (OR California or Florida)

What's one thing you now know about managing active classrooms that you wish you would've known on your first day?

Shake 'n' Share Prompts: Community-Building

Turn 1: Choose one word to describe your favorite thing for weekend. Explain why you chose this word.

Turn 2: What's your breakfast? What makes it the best thing for breakfast, in your opinion?

Turn 3: How is school like a shopping mall? What else is it like?

Turn 4: "I don't know Turn 5: What three know how to but I think it would be cool to learn to

because...."

things do you wish you had known about to improve the [last year's grade level] that you know

Turn 6: What's one thing you would do physical environment of this classroom?

Shake 'n' Share Prompts: Science Review

Explain

Explain what a cell is and how it works. Use the words balance, system, structure, and function if you can.

Have Perspective On

How and why are plant and animal cells similar and different?

Interpret

How is a **<u>cell</u>** like a car? What else is it like?

Empathize

Put yourself in the shoes of a **cell** membrane. What would you "let in"? Not let in? Why?

Apply

What would happen to other structures in a cell if the nucleus stopped working? Be specific!

Self-Reflect

How could you best show what you understand about cell transport?

Discuss how you might use this in your classroom.
What are the benefits?



Shake 'n' Share

A strategy for engaging learners in quick conversation around different aspects of a topic or concept.

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Fast Facts!

Ali Curwin

(1) Use the index cards to provide the following information about yourself:

4-(i⁴) words to describe you 2+ (2-3)+4 of your favorite activities outside of school

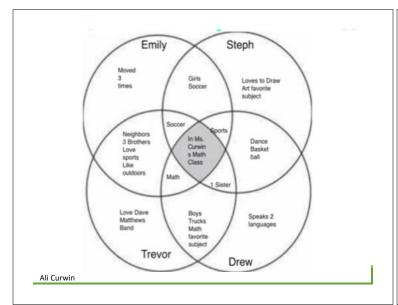
300 x 10⁻² of your favorite books

80+ 1 things you plan to do after high school

- (2) Next, in your quad, compare your answers the number solutions for each prompt. Make any necessary revisions.
- (3) As a group, create a four-way Venn Diagram that depicts the similarities and differences among you. (Remember that your cards are a "hands-on" tool!)

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As soon as the bell rings, Carson begins taking attendance with an "attendance question." The question changes every day. Students respond when she calls their names with their response to the day's question, and perhaps a brief justification for their response. "Okay, people, this is a big one today. Definitive answer. Coke or Pepsi?" On another day, she begins, "Okay folks, you've just been given a sampler box of Russell Stover candy, but the map is missing. You bite into a piece and much to your dismay, find out you've chosen a _____."

Before long, the students bring her slips of paper and whisper, "Here's an attendance question. This is a really good one."

"I love the idea that I start off all my classes with every kid speaking, every kid having a right answer, right away," explains Carson. "And then they also start to make connections around the room."

Tomlinson, C.A. & Doubet, K.J. (2005). You've got to reach them to teach them. Educational Leadership, 62 (7), 8-15.

Graffiti Wall

Teacher writes a phrase, topic, or category on the board.



om the classroom of Julie Mallory, Evanston Township High School

Kelly's Twist



Kelly Freehill – Via Twitter – September 7, 2012

Workshop Driving Questions

What is differentiation? What are its foundational principles?

How can we discover student needs – both as a group and as individuals?

How can teachers differentiate for student readiness, interest, and learning profile?

How can teachers manage differentiation and make it "work"?

--

Interaction = Differentiation's Social Foundation



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Tea Party

- You'll form groups according to the color of your card.
- Meet in the corresponding area of the room.
- Stay standing when you get there!

Front of the room

Blue

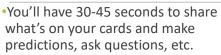
Pink

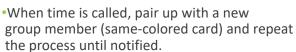
Purple

Orange Green

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Tea Party





- Make sure you reference the previous card(s) you've seen in each new grouping/discussion
- •Return to your table when time is called.

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Tea Party: We Think...

As a small group, write a brief "We think" statement that predicts what the article might be about and why.

"We think this article is about...

because...

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Read the Article

As you read, use these **Logographic Cues**:

• 🗸 = I knew that!

★ = Important information/statistic/quote

•? = Debatable or Questionable idea

! = Interesting... I want to explore this further

After you read:

- Go back and underline the phrases from the colored cards.
- What did you predicted correctly? What surprised you?
- Be ready to discuss with your group.

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Discussion



Connections: What connections do you draw between this study/article and your own life or learning?

 $\rightarrow \leftarrow$

Challenge: What ideas, positions, or assumptions do you want to challenge or argue with in the study/article?

Concepts: What key concepts or ideas do you think are important and worth holding onto from the study/article?

Changes: What changes in attitudes, thinking, or action are suggested or reflected by the

study/article, for middle and high school teachers?

Making Thinking Visible (2011), Ritchhart, Church, and Morrison

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2. Add or supporting evidence for the claim. Read your peer's claim. In this box, add something that would support that claim or make it stronger.

3. Make a counter-claim or provide evidence that claim or provide evidence that challenges the claim. In this box, make a claim or provide evidence that argues against what is written in boxes 1

3. Make a counter-claim or provide evidence that argues against what is written in boxes 1

3. Make a counter-claim or provide evidence that argues against what is written in boxes 1

1. Make a claim and explain your 2. Add or supporting evidence for the rationale. Say what you think, and why. claim. Read your peer's claim. In this box, add something that would support that The most powerful/important claim or make it stronger. portion of this text is You can include your own ideas and/or Because: cite those from the readings. [explain the idea's virtues] 3. Make a counter-claim or provide 4. Add your "two cents." Read what is evidence that challenges the claim. In this written in the three boxes. Add your box, make a claim or provide evidence that opinion and your reasoning in this box. argues against what is written in boxes 1 and 2. You can point out weaknesses in the You can include your own ideas and/or cite portion or suggest strengths of a those from the readings. different portion. Include your own ideas and/or cite those from the readings.

Check the solution. Review the process and solution in Box 1. Give two reasons you think it is correct or incorrect.

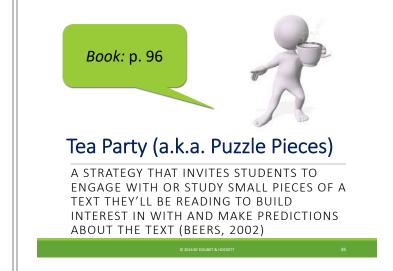
 Provide another way of solving the problem. Solve this problem in a way that's different from the process used in Box 1.

 Detect errors and misconceptions. Note any errors or misconceptions you see in Boxes 1, 2, or 3. If you don't see any, explain why you agree with what is written.

Book: p. 118-119

LOGOGRAPHIC CUES

A STRATEGY DEVELOPED BY KYLENE BEERS (2002) IN WHICH STUDENTS COME UP WITH VISUAL SYMBOLS, OR LOGOGRAPHS, TO SERVE AS SIGNPOSTS IN THEIR READING THAT ALERT THEM TO IMPORTANT ASPECTS OF THE TEXT OR NARRATIVE.



Book: pp. 132-134



Debate Team carousel

ASKS STUDENTS TO ENGAGE IN THE PROCESS OF CLAIM/COUNTER CLAIM WITH EVIDENCE (INCLUDING TEXTUAL SUPPORT); ALL STUDENTS BOTH "TALK" AND "LISTEN"

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A differentiated classroom is first an interactive classroom.