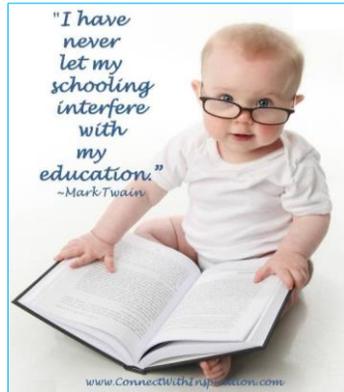


How to Keep Executive Function Functioning When Everything is Whacked!

Engaging Lesson Planning
Before, During, and After Learning
Day 2



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1

1



WELCOME

Today: Think Smart!

- Metacognitive thinking, before during and after
- Lesson Design that Engages the Brain

2

Mindful Breathing



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3

Knowing or Thinking?



Germinate: to become a naturalized German.

Momentum: What you give a person when they are going away.

Syntax is all the money collected at the church from sinners.

Vacuum: A large, empty space where the pope lives.

4

Knowing or Thinking?



- In Olympic games the Greeks ran races, jumped, hurled the biscuits and threw the java.
- A vibration is a movement that can not make up its mind which way it wants to go.
- A census taker is a man who goes from house to house increasing the population.

5

Routines & Procedures



- Mindful Moments/
- Brain Breaks
- Chat
- Reactions
- Journaling

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6

Where in the Great State of New York do you Reside?

7

DAY 2

Keeping Executive Function Functioning!

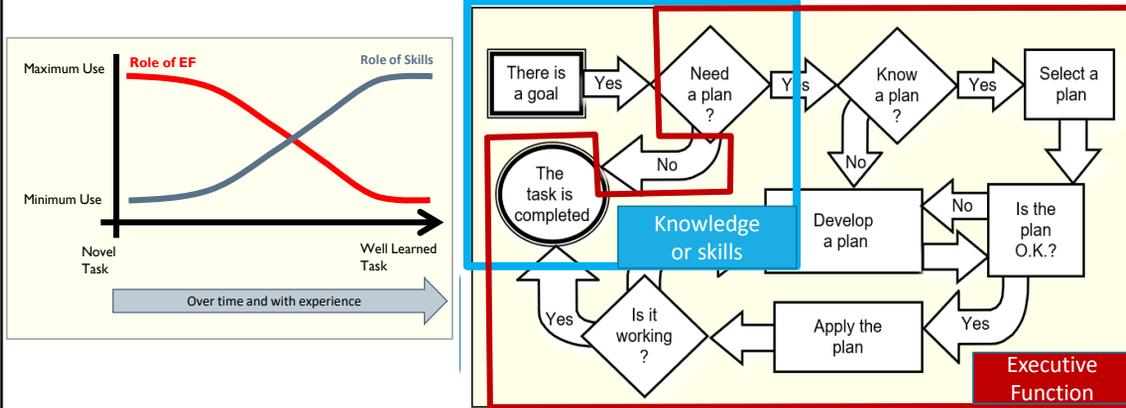


-  How do I get kids to “think positive, act smart?”
-  Designing metacognitive lessons
-  Before Learning: Preparing to Learn
-  During Learning: Monitoring and Adjusting
-  After Learning: Self-assessment and self-reflection
-  Take Away Tips
-  Conclusions

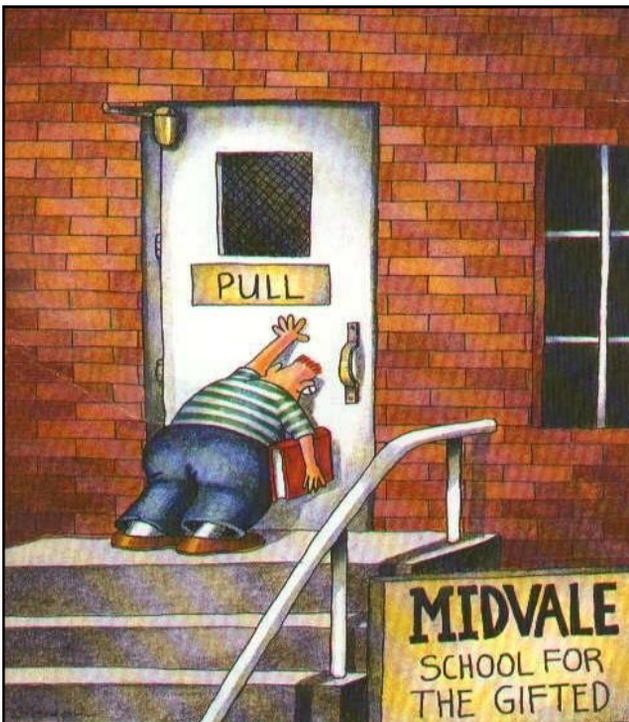
8

A Deeper View of Executive Function

How you do what you decide to do which demands...Especially in NOVEL situations



9



POOR PLANNING?

10

Use EF to overcome challenges

WE DON'T GROW WHEN THINGS ARE EASY, WE GROW WHEN WE FACE CHALLENGES.

PICTUREQUOTES.COM

11

Students need to know themselves:
Be Intentional and Transparent?

Why do I have to learn?
Why can't I stay the way I am? What's the point Of this? Why do things have to be this way? Why Can't things be different?



- The human brain responds to knowing **WHY**.
- Teach **WITH** your students, not **at** them.
- Teaching kids **HOW** to learn is as important as teaching them **what** to learn.

12

Observable Behaviors Associated with Effective EF in Children

- | | |
|--|--|
| <ul style="list-style-type: none"> ➤ Thinks through decisions ➤ Uses good strategies when doing work and plans ahead ➤ Appears motivated ➤ Has good self-control ➤ Manages several tasks at once ➤ Sees failures as opportunities to learn | <ul style="list-style-type: none"> ➤ Listens closely to instructions ➤ Concentrates well ➤ Pays attention to details ➤ Pays attention during a boring task ➤ Organizes tasks well ➤ Works well and is persistent |
|--|--|

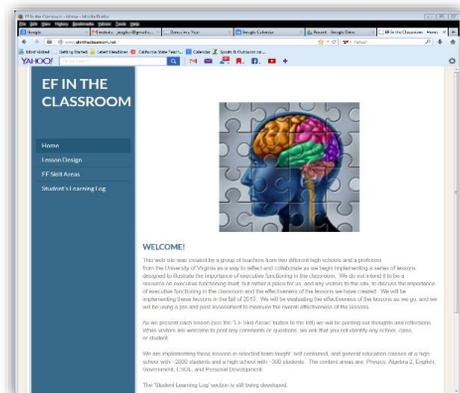
Note: These behaviors are similar to those on the CEFI (Naglieri & Goldstein, 2010).

13

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EF in the Classroom: *Lesson Plans are Free*

- **Lesson Plans for...**
 - Sustained Attention
 - Emotional Control
 - Cognitive Flexibility
 - Response Inhibition
 - Task Initiation
 - Organization
 - Planning
 - Response Inhibition
 - Working Memory
 - Goal Directed Persistence



www.efintheclassroom.net

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Flash Mob: Antwerp train Station (2009)



15

Planning Lesson & Student Responses



Q 1: What would you have to plan?

- They had to learn the dance steps (knowledge)
- Someone had to start dancing (initiation)

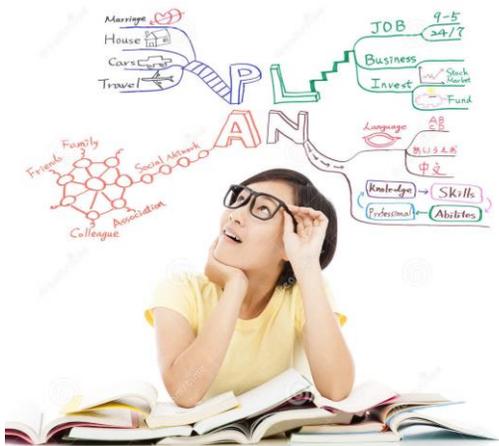
Q2: What are the parts of a good plan?

- Think of possible problems (strategy generation)
- Organize the dance (organization)

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16

Planning Lesson & Student Responses



Q3: How do you know if a plan is any good?

- Put the plan in action and see if it works (self-monitoring)
- Give it a try (perhaps learn by failing)

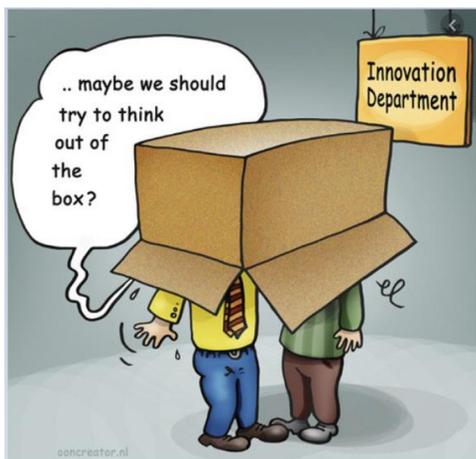
Q4: What should you do if a plan isn't working?

1. Fix it. (self-correction)
2. Go home! (a bad plan)

17

17

Planning Lesson & Student Responses



Q5: How do you use planning in this class?

1. We don't plan in this class
2. Mrs. X does all the planning in this class so you don't have to think about planning

To encourage EF we have to stress thinking about *how to do what you decide to do ...THINK out of the box*

18

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An Introduction to METACOGNITION- Lesson		
Length	30 minutes	
C U KAN	<p>Concept: METACOGNITION</p> <p>Understand: that metacognition is essential in becoming an effective learner</p> <p>Know: Metacognition</p> <p>Able To Do: Define metacognition through a song, rap, poem or chant that will help them to remember to be metacognitive.</p> <p>Now You Get It: Students will reflect on how using metacognition will help them become better learners.</p>	
Evidence	Metacognition journal/chart entries (follow up lessons) & memorization of the song/chant	
Min	materials	Lesson details
2	worksheet	<p>Do Now: Students should silently write down their own descriptions of what's happening in the cartoon. (It's a frog thinking about his own thinking = metacognition)</p>
1		<p>Opening: Choose a student to share her description with the class. Tell the students that this picture will make more sense by the end of the lesson if it hasn't quite clicked for them yet.</p>
3	Worksheet Pencils Timer	<p>Brain warm up/game time: Tell the students that they will have a chance to play Tic Tac Toe with a partner. They can play as many games as possible within the 2-minute time limit. Tell them to <u>pay attention to what's going on in their minds</u> as they make their choices throughout the games.</p>
4		<p>Discussion: Have students raise their hands if they won at least one match. Ask some students to share their secrets. What were they thinking in their minds before they made their moves? Do you have a favorite place to start? Why do you start there?</p> <p>Most likely the students will say they like to start in the corner because they can win that way.</p> <p>Teacher says: "Right! You have a plan, and that helps you win! If your opponent does something you hadn't expected, you're able to think of ways to adjust your plan so that you still win. Now I'm going to teach you a new important word and show you how to create a plan for winning the learning game. I'll help you see how this same type of thinking will translate to better results with your school work."</p>
15	White board & marker or a chart paper Smartboard or projector and computer to show the clip	<p>Lesson: Define metacognition: Thinking about one's thinking. Developing, monitoring and adjusting your plans to help you learn effectively.</p> <p>(Depending on the age group of students with whom you're working, this video could be a good resource to use describe the metacognition to the class - http://www.youtube.com/watch?v=m5E21QNY-I)</p> <p>Have you ever turned to the next page in your book and only to realize that you hadn't really been paying attention to the words you were "reading"?</p> <p>Have you ever spent time "studying" flash cards only to realize that you can't remember any of the words or concepts?</p> <p>Being metacognitive will help you be aware of your own learning and adjust your strategies to make learning easier.</p> <p>TEACHER'S CHOICE: You can now teach the class a rap, chant, or song that you've invented to help them remember the definition for metacognition and when to use it or allow the students to come up with their own song/rap/poem/chant/etc.</p> <p>Here are some examples of songs from other teachers' classrooms: Elementary school: http://www.youtube.com/watch?v=Fry2sQ3uId Middle school: http://www.youtube.com/watch?v=I_NcQ8k_1Bg8</p>

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look for my Newsletter
on Metacognition

<p>Name _____ date _____</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">  <p>In your own words describe what's happening in this cartoon.</p> <hr/><hr/><hr/><hr/><hr/><hr/> </div> <p>Game time:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> </tr> <tr> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> </tr> <tr> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> </tr> <tr> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> <td style="border: 1px solid black; width: 50px; height: 30px;"> </td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 20%; padding: 5px;">Metacognition definition</td> <td style="padding: 5px;"><hr/><hr/><hr/><hr/><hr/><hr/></td> </tr> <tr> <td style="padding: 5px;">How will metacognition help you become a better learner?</td> <td style="padding: 5px;"><hr/><hr/><hr/><hr/><hr/><hr/></td> </tr> </table>									Metacognition definition	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	How will metacognition help you become a better learner?	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<div style="border: 1px solid gray; padding: 20px; margin: 10px auto; width: 80%;"> <h1 style="margin: 0;">METACOGNITION</h1>  <h2 style="margin: 0;">THINKING ABOUT ONE'S THINKING</h2> </div>
Metacognition definition	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>												
How will metacognition help you become a better learner?	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>												

Think **SMART!**

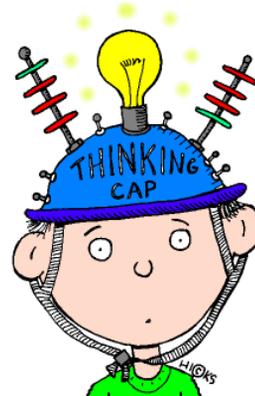
Stop and THINK

Make a PLAN

Take **A**ction!

Review/Reflect/Revise

Ta da! (or) Try Again



Developed by Naglieri and Kryza, 2014

Pg. 21

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Winning Formula for Success!



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Planning Facilitation = Metacognition (Read “How People Learn” for more...)

- **METACOGNITION** consists of three basic elements:
- **BEFORE:**
 - *Developing a plan of action*
- **DURING**
 - *Maintaining / monitoring the plan*
- **AFTER**
 - *Evaluating the plan*

The more students are aware of their thinking processes as they learn, the more they can control such matters as goals, dispositions, and attention.

Self-awareness promotes self-regulation



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Let's Try: Academic Metacognition

- I'll give you some examples and you tell me if this person is THINKING **SMART** or NOT.
- Scott tried once, but couldn't do his math homework, so he watched T.V.
- Was he THINKING **SMART**?
- Let's help Scott THINK **SMART**



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WANT KIDS TO THINK SMART? Ask Questions, Don't Tell

- Kathleen, do this, do that, this way... with the sails, the anchor, the helm, the lines



- Kathleen, what do you think you should do now? What would do differently next time?



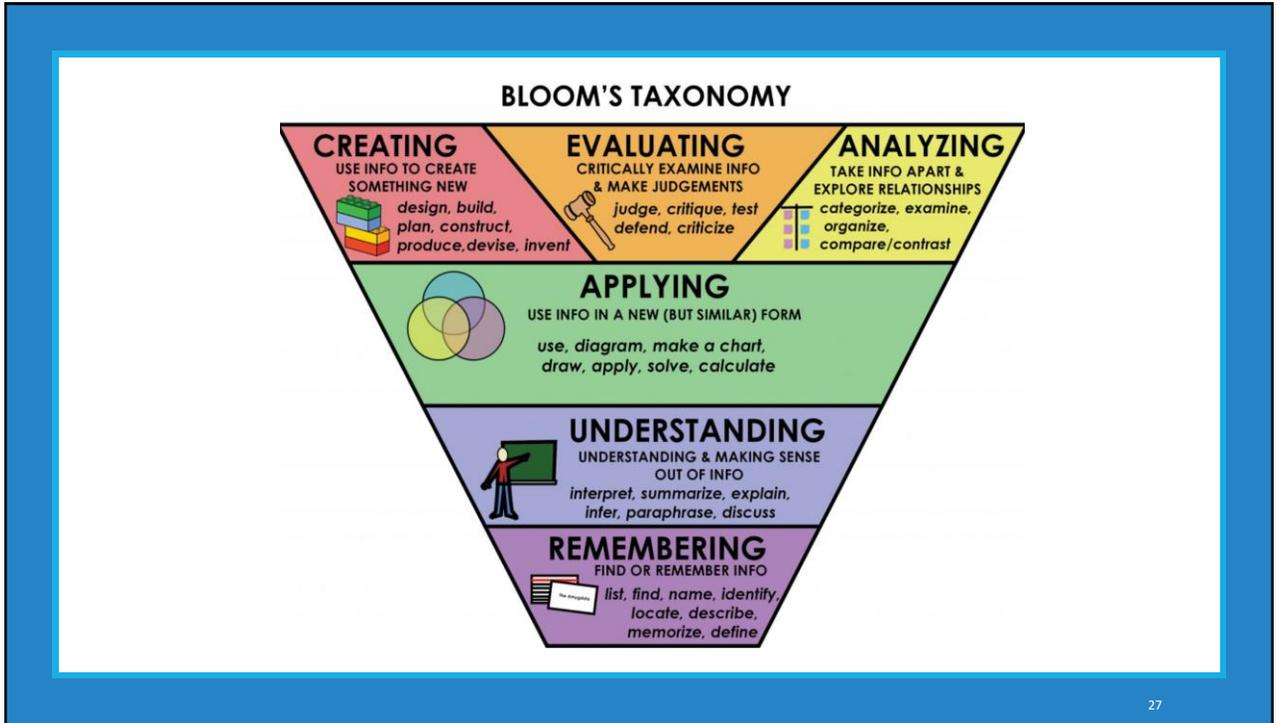
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25

Reframe your Telling to Asking...

- *This is what you need to do...*
 - **How could you do/approach this task?**
- *You're stuck. Let me help you.*
 - **What options do you have for getting unstuck?**
- *Here's your grade for the test.*
 - **Look over your test. What did you do to study that worked? What you would do differently next time?**

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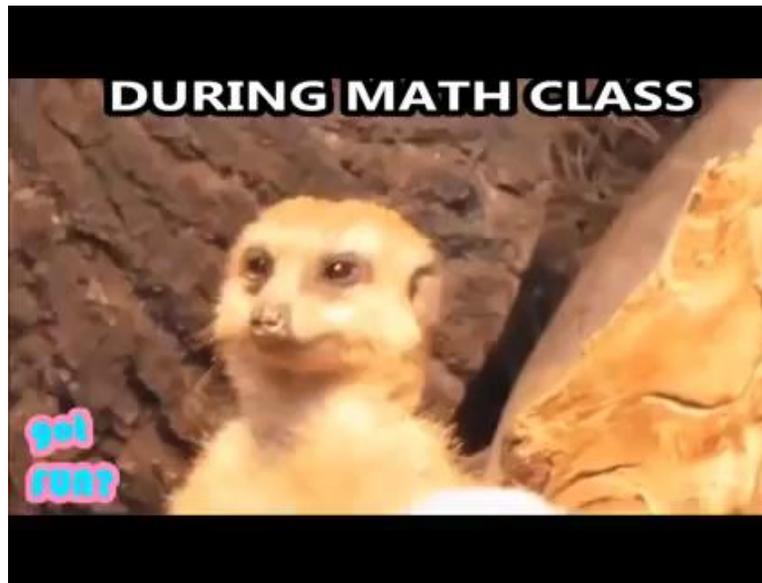
LET'S TAKE A BRAIN BREAK!

The brain needs time **to process!**

- ❖ Stretch
- ❖ **Cross Laterals**
- ❖ Walk and Talk
- ❖ Energizers
- ❖ Relaxers

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BEFORE:

- Realistic routines
 - Kids make their own routines– elementary chart, secondary they create.
- Materials and Location for Learning
 - What and Where and WHY
- Students are part of what happens at the beginning of class.
 - Zoom or Google Hangout:
 - Break out groups, solve warm up problems on the Zoom white board. Journal, funny



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Metacognitive Lesson Planning

- **CHUNK:** Teach 10-15 minutes of new content.
- **CHEW:** Students process the new content
 - Multi-modal
 - High Level Thinking/Planning
- **CHECK:** Show what you know...
 - Formative Assessment – Student/Teacher
 - Summative Assessment – Test or Project



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Chunk, Chew and
Check - that's how the
brain learns best!

*For every 10 minutes you
teach something new, the
brain needs one or two
minutes to chew!
(approximately)*

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Think Series of
Chunks and
Chew Before
Checks
(Formative or
Summative)

Chunk 1 Teacher gives students circle graph cut-outs to explore.

Chew 1 Students discuss what they notice with turn and talk partners: *How would a mathematician use these circles?*

Chunk 2 Teacher explains how the graphs represent fractions.

Chew 2 Students do a problem from the book with table partners.

Formative Check: *Teacher walks around to observe if students are able to do the work.*

Chunk 3 Teacher explains how % is represented as a circle graph.

Chew 3 Students try a problem on their own and check with partners for inconsistencies or errors.

Check Homework from the book.

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CHUNK (Input)

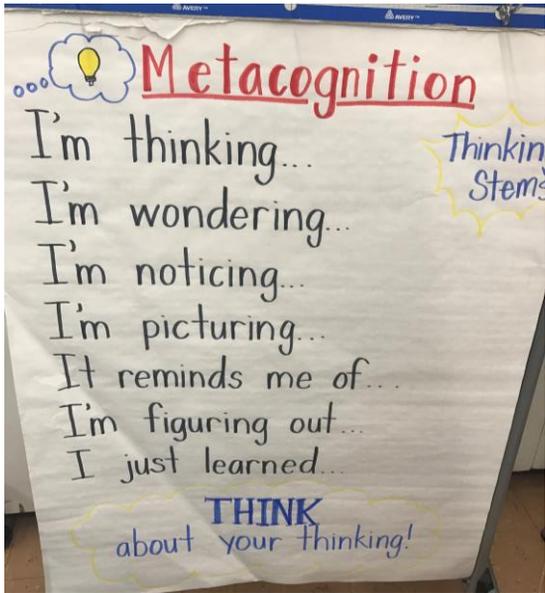
NewsELA: Leveled Readings
Secondary

Epic Books Digital Library for
Elementary

BrainPop Video Library: K-3, 4-8, ELL

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During:
 Making Sense

35

Think
 Alouds

36

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RESIST: Teach About Interacting vs. Distracting Voice

- **Interacting voice:** The voice inside the reader's head that pays attention by making connections, asking questions, identifying confusions, agreeing and disagrees with ideas. This voice deepens the reader's understanding of the text.
- **Distracting voice:** The voice inside the reader's head that pulls him away from the meaning of the text. It begins a conversation with the reading but gets distracted by a connection, a question, or an idea. Soon the reader begins to think about something unrelated to the text.

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RUDY' S: Math Problem
Solving Strategy

Read the question
(Carefully)
Underline Important
Words
Draw the problem
You choose the math
action needed
Solve and check your
answer

Rudy the
Rabbit says,
"You have
to have a
PLAN!"



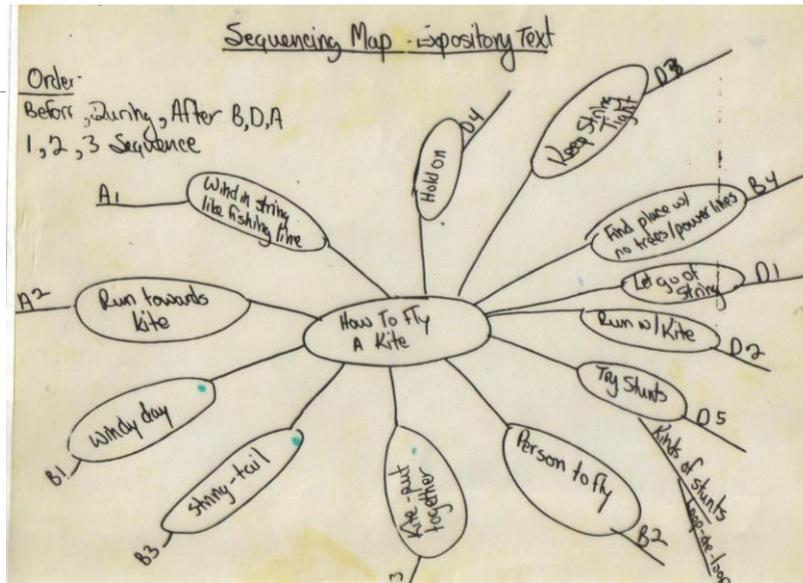
SIGNS: A Strategy for
Solving Word Problems

Survey the question
Identify key words and
labels
Graphically draw the
problem
Note operation(s)
needed
Solve and check
problem

Developed by Watanabe, 1991

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Read this and find out how to do just that. It's easy, fun and you can learn fast.

The first thing you need to do is buy a kite. Make sure it has all the parts, especially string and a roller. Once you get the kite home you need to build it and then tie the string to the bottom of it. Wait for a windy, clear day, then call a friend to come and help. Next you go outside and find a big area with no power lines or trees. Then have your friend hold onto the kite as you hold onto the string. Next you start running until you feel the kite catch the wind. When it catches the wind tell your friend to let go. Finally, you are flying the kite. Now you can do tricks like...

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Example of good writing

How to Make Mashed Potatoes By Chase

Eating mushy mashed Potatoes is my favorite thing to do. The best thing is that they are easy to make.

First you get out the potatoes. Then you peel the skin off the potatoes and put them in a pan with water. After you are done boiling the potatoes, then drain the potatoes and put them back in the pan. Now put butter and milk on them. Then you mash the potatoes. When you are done, you serve the potatoes. Then you eat them.

So go home and make your self some mashed potatoes. Follow the instructions I told you and they'll turn out just fine.



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CHEW (Process)



Zoom: Interactive White Boards, Chat and Breakout Groups for thinking together.



EdPuzzle: Post videos (yours or others), check to see if kids are watching and if they're understanding the content.



StoryBird: Digital student created writing. PreSchool – 12.



Voicethread: student presentations, conversational practice

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42

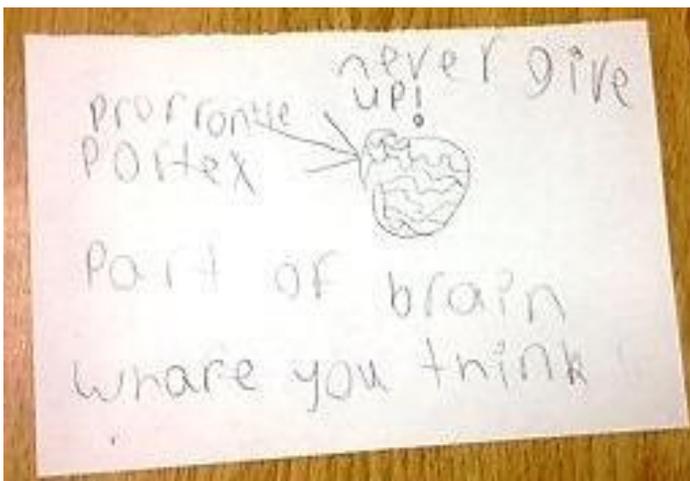


After: Three Finger Self- Assessment

How much do you have students involved in self-assessing in your classroom?

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Self Assessment



Self Assessment



Thumbs Up

I can do it all by myself!



Thumbs Side-ways

I can do it with a little help.



Thumbs Down

I can do it, but I still need a lot of help!

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Student Reflection Exit Cards

- What was your mindset today?
 - *Was it helpful or harmful?*
- What strategies did you use during learning?
 - *Did they work for you?*
 - *What would you need to do differently next time?*

Independence Check In

- Did you know your assignment and all the directions?
 - If not, did you use your group mates for help?
- Did you use your tools and resources if needed?
- Did you transition from “must do” to “can do”?
- Did you NOT interrupt a conference?

45

45

CHECK (Output)

Zoom or Polls Everywhere: Insert assessment polls into your lessons

EdPuzzle: Check to see if students are understanding the content.

Kahoot: Fun quizzing, productive formative assessment and student reflection if implemented effectively.

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Dennis, 16, On Metacognition

What's metacognition?

It's the recognition,

Of how my brain works,

Understanding my learning quirks.

It means I've got to have a plan

And more important, think, "I can!"

Before, during, after, that's the trick

Metacognition means that learning sticks.

When I have a plan, I'm a stronger reader

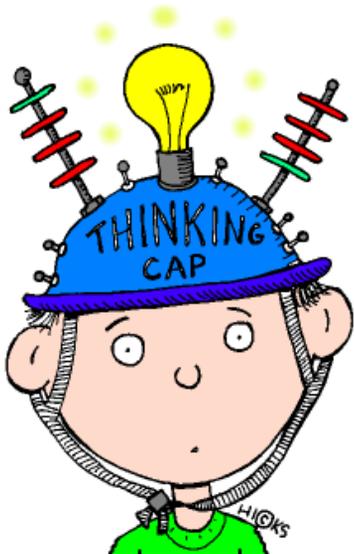
This can help me become a real leader!

So I'll practice my skills each and every day.

Metacognition will take me all the way!

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Using effective EF to overcome a neurocognitive processing disorder
(Think Smart!)

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48

Ben: A Student with Dyslexia

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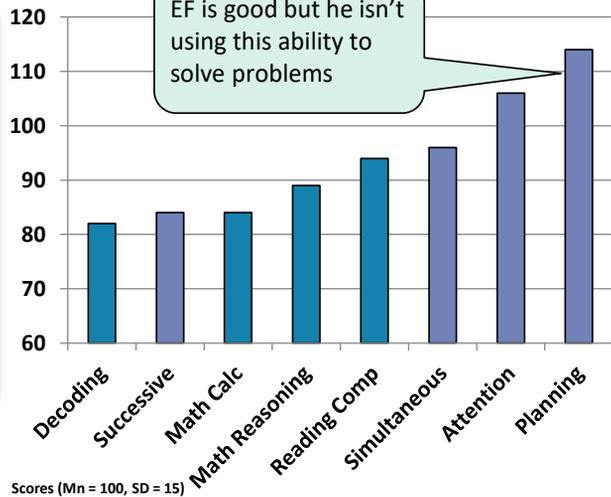
Helping Children Learn

Ben's Problem with Successive Processing



Ben was an energetic but frustrated third-grade student who liked his teachers, was popular with his peers, and fit in well socially at school. However, Ben said he did not like school at all, particularly schoolwork. Ben was good at turning in all of his work on time, and he worked hard, but he earned poor grades. He appeared to be getting more and more frustrated at school.

In general, Ben struggled to perform well because he had a lot of trouble following directions that were not written down, his writing often did not make sense, and he did not appear to comprehend what he read. Ben's teachers noticed that when directions for assignments and projects were given orally in class, he often only finished part of the task. Ben's teacher described an assignment in which students had to collect insects, label them, organize them into a collection, and then give a brief presentation about each insect. Unlike any other student, Ben chose to make the labels for the insects first and then go look for the insects. He found only a few of the insects he had made labels for, and when he put them in the collection, they were not in the order that had been specified. He also had trouble with the spelling of the scientific names of the insects and made many errors in the sequence of letters in the words.



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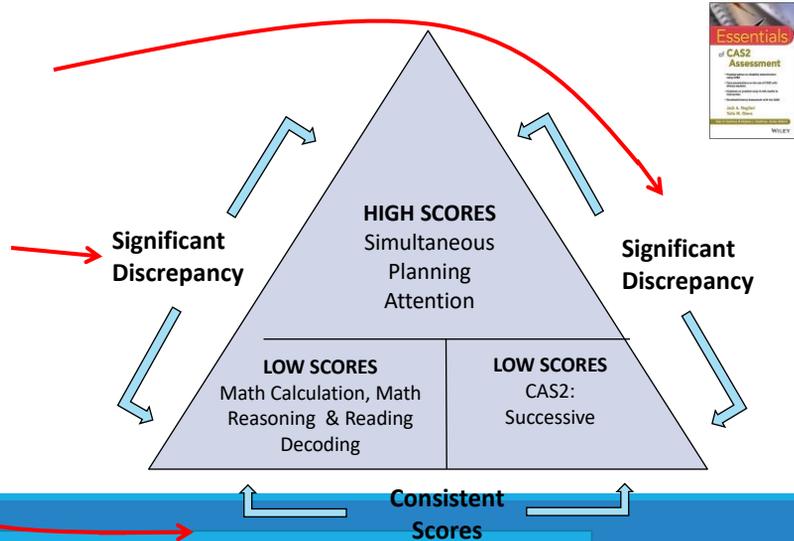
Ben's School Behaviors

- A 3rd grade student who is
 - fits in well socially at school
 - good at turning in his work on time
 - liked by his teachers
 - popular with his peers
 - Worked hard (but got poor grades)
- Ben has trouble
 - following verbal directions
 - expressing his ideas in a logical order
 - remembering the order of events provided in a paragraph
 - with basic math facts
 - remembering phone numbers and the combination for the lock on his bike
 - finding words in a dictionary

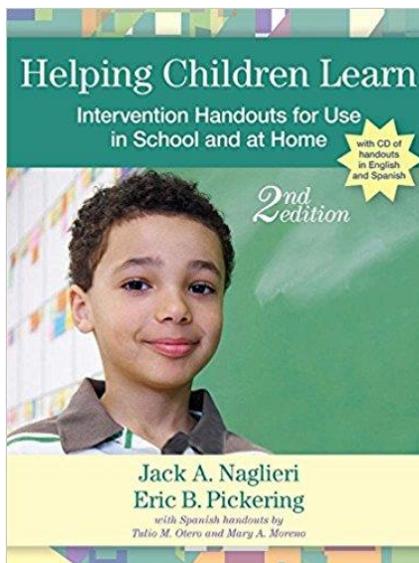
50

Ben's SLD: Discrepancy Consistency Method

- **Discrepancy** between high and low processing scores
- **Discrepancy** between high processing and low achievement
- **Consistency** between low processing and low achievement



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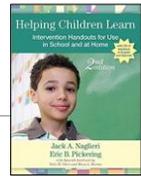
Teach Children about their Abilities

- Helping Children Learn Intervention Handouts for Use in School and at Home, *Second Edition* (Naglieri, & Pickering, 2011)
- Spanish handouts by Tulio Otero & Mary Moreno

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How to Use Ben's EF Strength

Explicitly teach him about his strength in EF (Planning) and why it is so important



How Can You Be Smarter?

You can be smarter if you PLAN before doing things. Sometimes people say, "Look before you leap," "Plan your work and work your plan," or "Stop and think." These sayings are about using the ability to plan. When you stop and think about *how* to study, you are using your ability to plan.

You will be able to do more if you remember to use a plan. An easy way to remember to use a plan is to look at the picture "Think smart and use a plan!" (Figure 1). You should always use a plan for reading, vocabulary, spelling, writing, math problem solving, and science.

Do you have a favorite plan for learning spelling words? Do you use flashcards or go on the Internet to learn? Do you ask the teacher or another student for help? You can learn more by using a plan for studying that works best for you.

Think smart and use a plan!



It is smart to have a plan for doing all schoolwork. When you read, you should have a plan. One plan is to look at the questions you have to answer about the story first. Then read the story to find the answers. Another plan is to make a picture of what you read so that you can see all the parts of the story. When you write you should also have a plan. Students who are good at writing plan and organize their thoughts first. Then they think about what they are doing as they write. Using a plan is a good way to be smarter about your work!

How to Be Smart: Planning

When we say people are smart, we usually mean that they know a lot of information. But being smart also means that someone has a lot of ability to learn new things. Being smart at learning new things includes knowing and using your *thinking abilities*. There are ways you can use your abilities *better* when you are learning.

What Does Being Smart Mean?

One ability that is very important is called *Planning*. The ability to *plan* helps you figure out *how to do things*. When you don't know how to solve a problem, using Planning ability will help you figure out how to do it. This ability also helps you control what you think and do. It helps you to stop before doing something you shouldn't do. Planning ability is what helps you wait until the time is right to act. It also helps you make good decisions about what to say and what to do.

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Use Ben's EF Strength to Overcome Weakness

Teach him to recognize sequences

How to Teach Successive Processing Ability

The first step in teaching children about their own abilities is to explain what Successive processing ability is. In Figure 1 (which is included in the PASS poster on the CD), we provide a fast and

1. Teach children that most information is presented in a specific sequence so that it makes sense.
2. Encourage children by asking, "Can you see the sequence of events here?" or "Did you see how all of this is organized into a sequence that must be followed?"
3. Remind the students to think of how information is sequenced in different content areas, such as reading, spelling, and arithmetic, as well as in sports, playing an instrument, driving a car, and so forth.
4. Teach children that the sequence of information is critical for success.
5. Remind students that seeing the sequence requires careful examination of the serial relationships among the parts.

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Solutions for Ben- Use EF

Teach him to use strategies

Chunking for Reading/Decoding

Reading/decoding requires the student to look at the sequence of the letters in words and understand the organization of specific sounds in order. Some students have difficulty with long sequences of letters and may benefit from instruction that helps them break the word into smaller, more manageable units, called *chunks*. Sometimes the order of the sounds in a word is more easily organized if the entire word is broken into these units. These chunks can be combined into units for accurate decoding. Chunking for reading/decoding is a strategy designed to do that.

How to Teach Chunking for Reading/Decoding

Teachers should first teach the children what it means to chunk or group information so that it can be remembered more easily. Use number sequences and letters for illustration (e.g., how telephone numbers are grouped). Then introduce

Plan	Action
Look at the word.	"I see the word beginning."
Find the chunk.	"I see the chunk given in the middle."
Sound out the chunk.	"I see...uh..."

words to be read and break the words into units, such as re-mem-ber for remember or car-pet for carpet. Try to organize the groups of letters in the word in units that are natural

Segmenting Words for Reading/Decoding and Spelling

Decoding a written word requires the person to make sense out of printed letters and words and to translate letter sequences into sounds. This demands understanding the sounds that letters represent and how letters work together to make sounds. Sometimes words can be segmented into parts for easier and faster reading. The word *into* is a good example because it contains two words that a child may already know: *in* and *to*. Segmenting words can be a helpful strategy for reading as well as spelling.

How to Teach Segmenting Words

Segmenting words is an effective strategy to help students read and spell. By dividing the words into groups, students also learn about how words are constructed and how the parts are related to one another. Students should be taught that words can be broken down into segments or

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Tips and Takeaways



- Teach intentionally and transparently. (kids are more likely to go there with you when they know WHY?)
- Encourage student to ask their own questions BEFORE, DURING, and AFTER learning. Ask questions (don't tell),
- DON'T COMMIT ASSUMICIDE! Think Aloud, Model and Scaffold.
- Design your lessons using Chunk, Chew and Check.
- Use less strategies (and CCC technology) more deeply!
- Self Assessment IS EF/metacognition

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More to Come... April 22th



- Social Emotional
- Mindsets
- Mindfulness
- Sex!

YOUR HOMEWORK: Catch yourself TELLING and practice ASKING

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Please be in touch with us directly for information about additional presentations and consultations

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STUDENT CHOICE VERIFICATION FORM
Non-Completion of Assignment

I, _____, have chosen not to participate in the following classroom **CHEW** activity:

Due Date: _____.

I understand that by making a **fixed mindset** choice, I will not be engaged in the learning process and thereby will not be building neural connections that can improve my learning.
 I understand that by making this choice I may be less prepared to handle the rigors of our competitive society.
 I understand that by choosing not to do this **CHEW** activity I may be less likely to succeed in this course and in life.

In signing this document, I acknowledge that I understand the consequences of choosing not to participate.

Student Signature: _____

Date: _____

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