

## TKB Before “Class” Starts...

- Make sure Chris gets your email address in his file
- Any cool ideas you want add to the Cool Stuff list
  - Kim – The Answer is “C”
- Make sure your foldables are filled in Day 1 and Day 2. Review with your Core Group or Chat Chum.
- GIVE OUT SKO LOGINS

LEARNING & *the* BRAIN®

conclusions

1

## Think Smart : Using Mindsets and Metacognition for Student Success – DAY 3: Mindsets + Skillsets = Results

**Jack A. Naglieri, Ph.D.**  
Research Professor, University of Virginia & Devereux Center for Resilient Children

**Kathleen M. Kryza, MA**  
International Educational Consultant,  
Infinite Horizons

**Think smart and  
look at the details!**



LEARNING & *the* BRAIN®

conclusions

2

**Your poll will show here**

**1**

Install the app from  
[pollev.com/app](http://pollev.com/app)

**2**

Make sure you are in  
Slide Show mode

Still not working? Get help at [pollev.com/app/help](http://pollev.com/app/help)  
or  
[Open poll in your web browser](#)

3

## www.jacknaglieri.com

- ▶ General information
- ▶ Copies of presentations, research and book chapters
- ▶ To ask a question

**JACKNAGLIERI.COM**

HOME ABOUT PUBLICATIONS TESTS HANDOUTS & RESEARCH BY TEST TESTIMONIALS CONTACT

**ABOUT**

Jack A. Naglieri, Ph.D., is Research Professor at the Curry School of Education at the University of Virginia, Senior Research Scientist at the Devereux Center for Resilient Children and Emeritus Professor of Psychology at George Mason University.

[Read More](#)

**PUBLICATIONS**

The author of more than 300 publications, his recent efforts include cognitive assessment, cognitive intervention, SLD determination and measurement of psychopathology and resilience.

[Read More](#)

**TESTS**

A comprehensive list of Jack A. Naglieri's tests such as the Naglieri Nonverbal (NNA) and the Comprehensive Executive Function Inventory (CEFI).

[Read More](#)

**RESOURCES**

Download a PDF of handouts of past presentations on various topics and research by Jack A. Naglieri.

[Read More](#)

4

# kathleenkryza.com

- ▶ Newsletter
- ▶ Free Resources
- ▶ Books
- ▶ Contact me or book me for your school
- ▶ Don't forget to like me on Facebook or Follow me on Twitter!

LEARNING & the

kathleenkryza.com

See Kathleen present her new workshop, "Think Smart" July 11-15, 2016. [Details here.](#)



**Kathleen Kryza's**  
**Infinite Horizons**  
www.kathleenkryza.com

**Passionately Committed to Transforming Classrooms Culturally, Emotionally and Academically**

**"Mindsets + Skillsets = Results"**

HOME SERVICES CONTACT BOOKS FREE RESOURCES NEWSLETTERS ABOUT BELIZE EDVENTURE



**Transformative Teaching**  
Kathleen Kryza, Birmingham, Duncan

**Books**  
Be sure to check out Kathleen's newest book, *Transformative Teaching: Changing Classrooms Culturally, Academically and Emotionally*. Kryza, Birmingham, Duncan, Skidmore Tree Press, 2015.

**To order any of Kathleen's inspiring books for educators, CLICK HERE.**



**Workshops/Coaching**  
Top reasons to bring Kathleen to your school, district or conference:

- Participate in high quality, dynamic workshops that blend current, brain-based research with practical and usable strategies.
- Experience engaging and inspirational professional development.
- Leave inspired with tools you can implement immediately in your school or classroom.
- Transform your schools and classrooms as you honor all learners culturally, academically and emotionally.

**To see a list of Kathleen's workshops and seminars, CLICK HERE.**

**To learn about Kathleen's coaching/consultation services, CLICK HERE.**



**About Kathleen**  
For over 30 years, Kathleen Kryza has inspired thousands of children and educators around the globe through her dynamic presentations and writing. Kathleen is passionately dedicated to helping classrooms, schools, and the world, be a better place for children.

**To learn more about Kathleen, CLICK HERE.**

5

# Edu-Venture

# In Belize

differentiation, experience it to embrace it!



06/15/2016



www.kathleenkryza.com

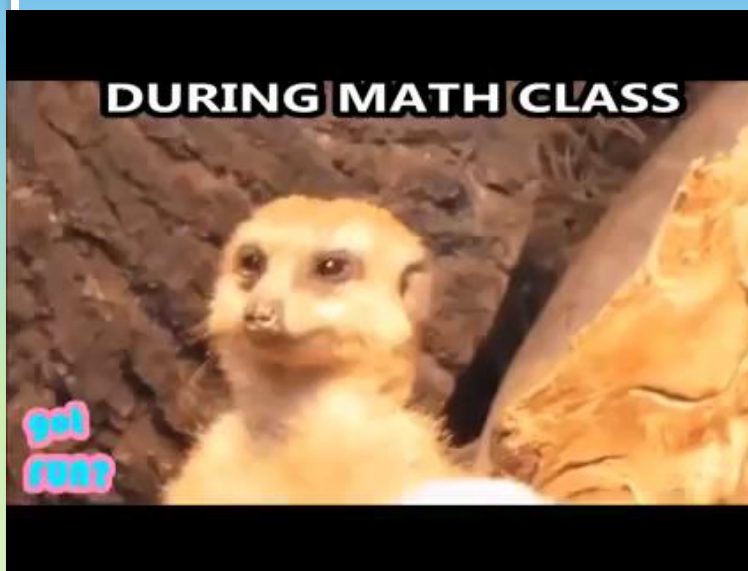
## Here's Where We're Going...


- Introduction/Routines and Procedures
- Planning
- Mindsets Plus Skill Sets Equals Results
  - Metacognition Wrap Up
  - Mindsets
- Attention & Instruction
- Today's Conclusions

LEARNING & *the* BRAIN®



## Paying Attention is Sometimes Impossible





## Core Groups

What job would you like to do today?


- Coach
- Organizer/Time Keeper
- Recorder
- Energizer

Pg. 3

LEARNING & *the* BRAIN®

conclusions

## Norms: Are you in for Today



LEARNING & *the* BRAIN®

www.kathleenkryza.com

conclusions

## Mindset Check in...

- How are you feeling today?
  - I am feeling...
- What “weight” are you carrying with you today that you need to let go of so you can stay present.
  - For today, I am letting go of...
- What word or phrase summarizes your intention for today?
  - Say your word. (Ex: Open Mind, Deep Thinker)

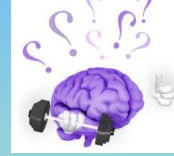
## PASS Review – Parts of the Brain and the Movements

- **P**lanning = THINKING ABOUT HOW YOU DO WHAT YOU DECIDE TO DO
- **A**ttention = BEING ALERT AND RESISTING DISTRACTIONS
- **S**imultaneous = GETTING THE BIG PICTURE
- **S**uccessive = FOLLOWING A SEQUENCE
- **PASS theory** is a way to measure neuro-cognitive abilities related to brain function



## Winning Formula to Think Smart!

$$\begin{array}{c}
 \text{Mindsets} \\
 + \\
 \text{Skill Sets} \\
 \hline
 = \text{RESULTS!}
 \end{array}$$



LEARNING & the BRAIN®

copyright 2012



## Wabi Sabi

**"When the Japanese mend broken objects, they aggrandize the damage by filling the cracks with gold. They believe that when something's suffered damage and has a history it becomes more beautiful."**

Billie Mobayed

LEARNING & the BRAIN®

conclusions

14

## Creating a Metacognitive Classroom

- Intentionally and Transparently teach students about metacognition
  - Kathleen's lesson, EF in the Classroom, the Cheesey EdPuzzle video your own dazzling plan
- Teach them to "Think Smart"
  - Practice frequently socially-emotionally and academically
- Build in questioning and metacognitive protocols in content instruction
  - Intentional and Transparent
  - Model and Scaffold, Practice, Practice, Practice

LEARNING & the BRAIN®

conclusions

15

## 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!

LEARNING & the BRAIN®

conclusions

16



## Reflect and Share Metacognitive Questions

- In your core group, share the Before, During and After Questions you created.
  - Share and choose three of your best questions
  - Share with whole group.
- Develop and use generic questions (see handbook)

LEARNING & *the* BRAIN®

conclusions

17

❖ Think Alouds

❖ Anchors Charts

❖ Self Assessment

LEARNING & *the* BRAIN®

www.kathleenkryza.com  
conclusions

## Think Aloud and Model Metacognition

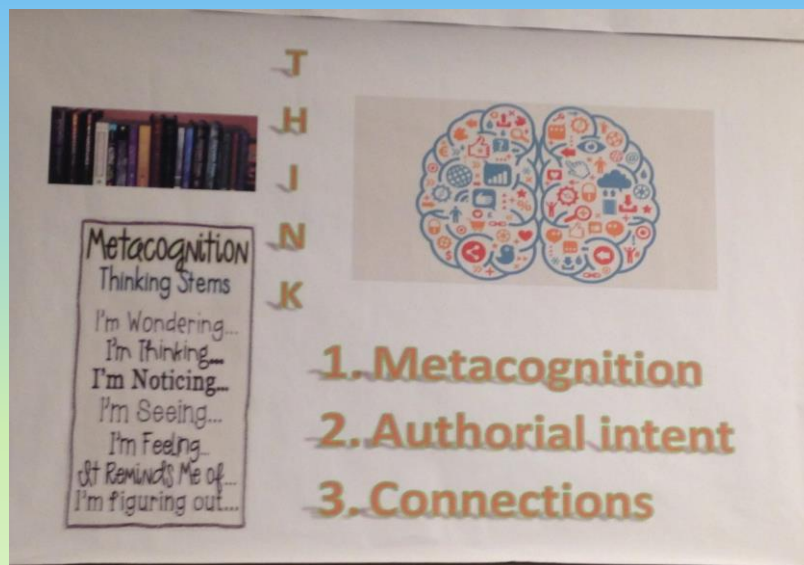


LEARNING & *the* BRAIN®

conclusions

19

## Anchor Charts Make Metacognition Visible

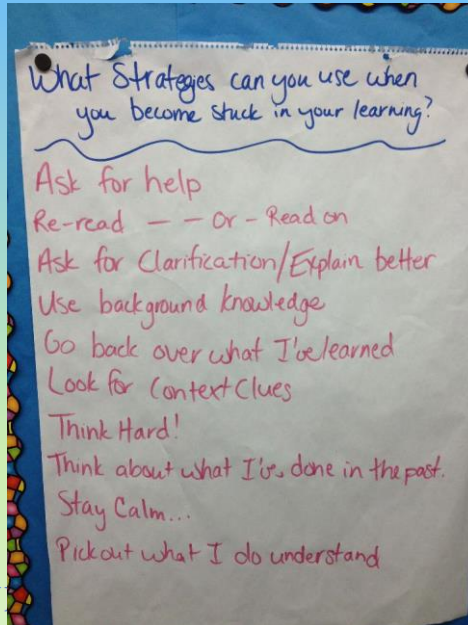


LEARNING & *the* BRAIN®

conclusions

20

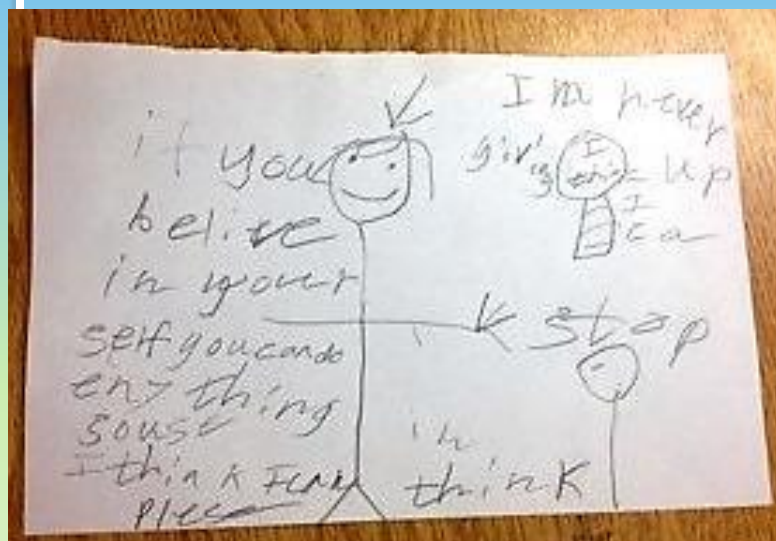
## Anchor Chart: Making Thinking Visible



LEARN

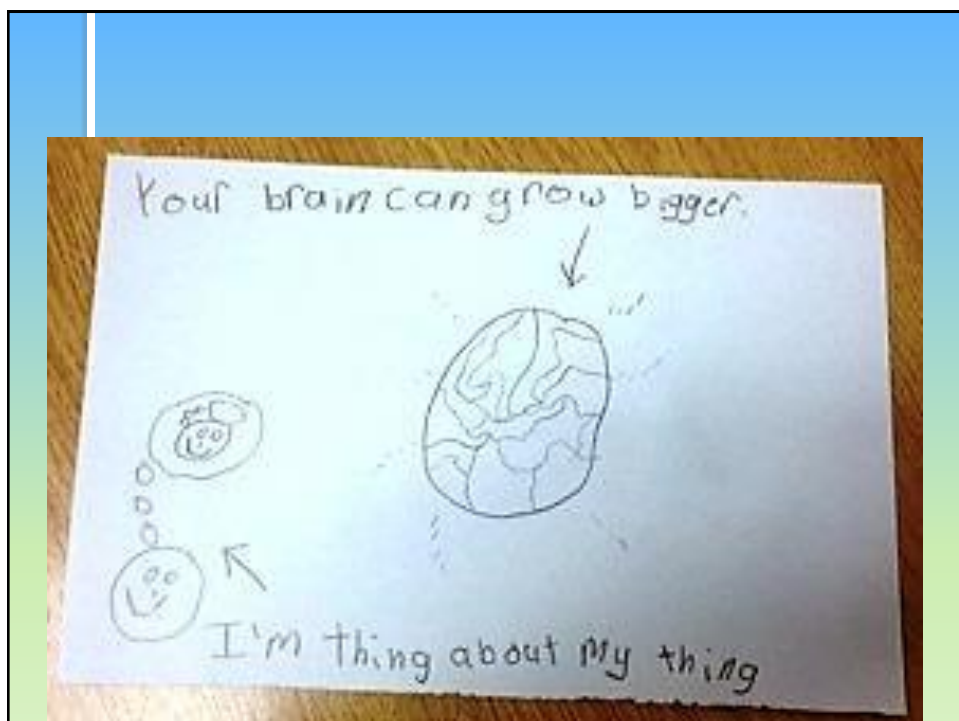
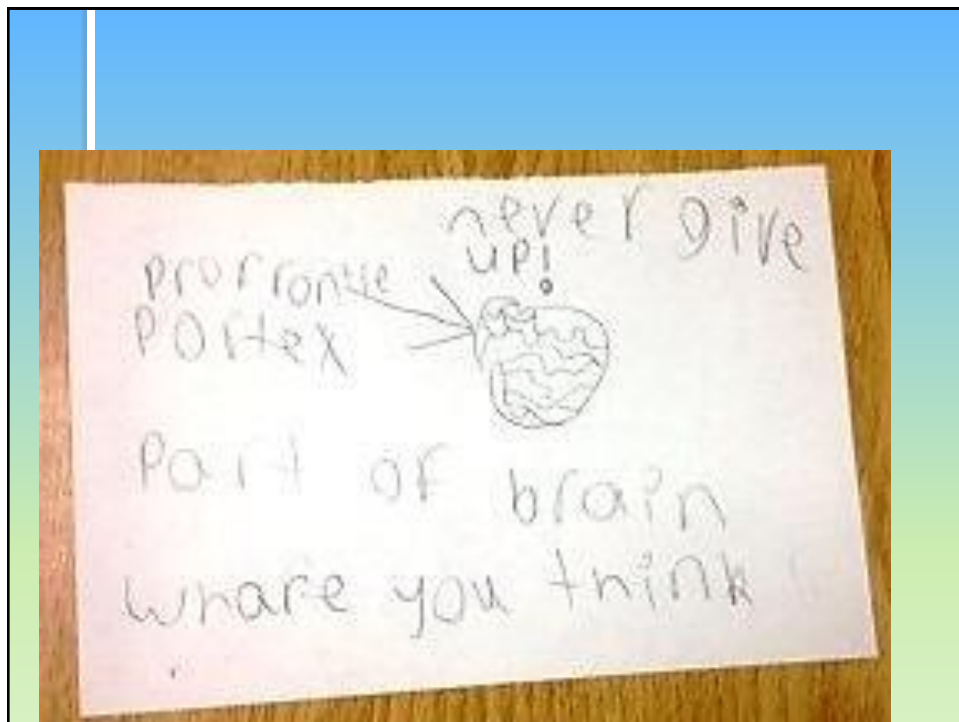
conclusions

## Metacognition = Self-Assessment...



LEARNING &amp; TEACHING

conclusions



## Think and Talk



&



How will you deepen what you do to transparently support students in developing their meta-strategic skill sets?

NOTE: STOP AND TALK is important because the brain retains 50% through talk.

LEARNING & *the* BRAIN®

www.kathleenkryza.com  
conclusions

## Building the Big Picture

Big Idea :PASS

Subheadings:

Planning

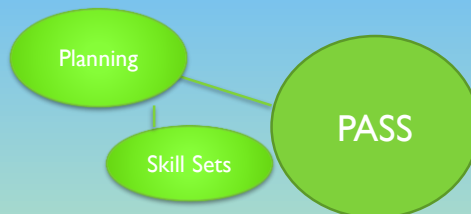
Mindsets

Skill Sets

Attention

Successive

Simultaneous



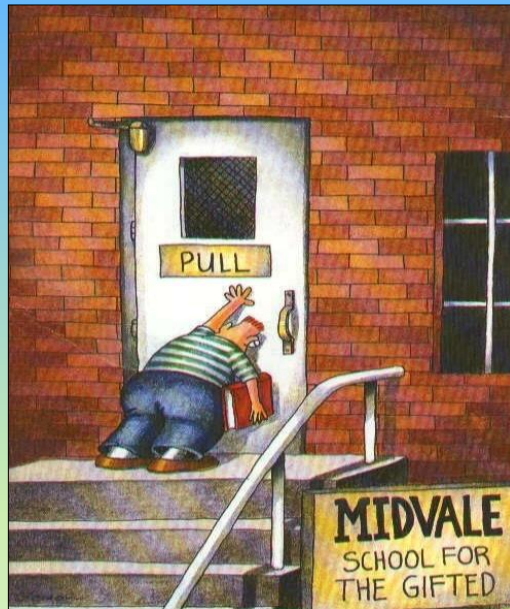
You will be capturing the “Big Idea” of each key part of PASS on your organizer after we teach each section.

LEARNING & *the* BRAIN®

conclusions

26

## POOR PLANNING



LEARNING & *the* BRAIN®

conclusions

27

## PASS Theory: Planning Challenges

Examples of classroom problems related to Planning

- Using the same strategy even if it is not effective
- Struggling with how to complete tasks
- Not monitoring progress during a task
- Misinterpretation of what is read



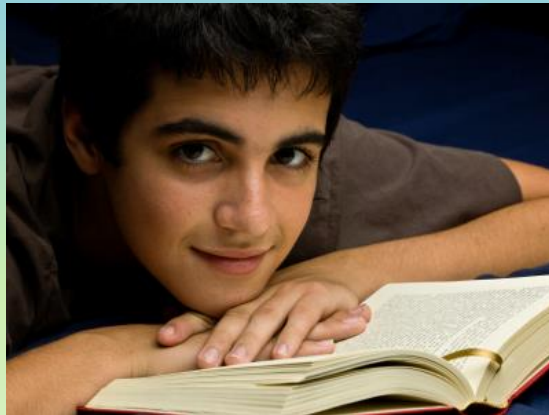
LEARNING & *the* BRAIN®

conclusions

28

## The Case of Rocky

Specific  
Learning  
Disability  
and  
ADHD



LEARNING & the BRAIN®

conclusions

29

## The case of Rocky

- ▶ Rocky<sup>1</sup> is a real child with a real problem
- ▶ He lives in a large middle class school district
  - a wide variety of services are available
- ▶ In first grade Rocky was performing significantly below grade benchmarks in reading, math, and writing.
  - He received group reading instruction weekly and six months of individual reading instruction from a reading specialist
  - He made little progress and was retained

Note: This child's name and other potentially revealing data have been changed to protect his identity.

LEARNING & the BRAIN®

conclusions

30



## The case of Rocky

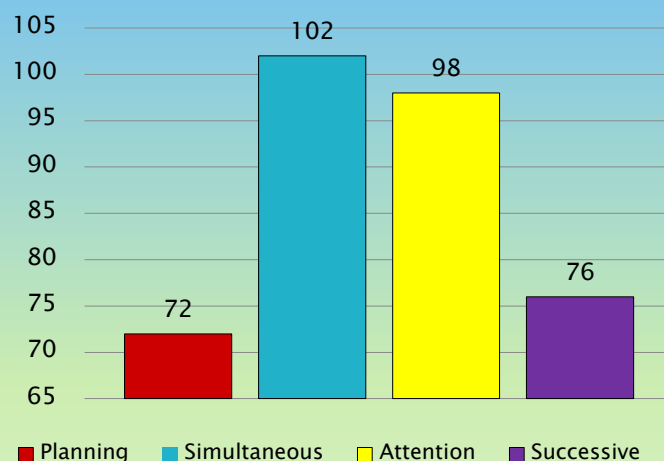
- ▶ By the middle of his second year in first grade Rocky was having difficulty with
  - decoding, phonics, and sight word vocabulary;
  - math problems, addition, fact families, and problem solving activities;
  - and focusing and paying attention.”
- After two years of special team meetings and special reading instruction he is now working two grade levels below his peers and is having difficulty in reading, writing, and math
- A comprehensive evaluation was conducted

LEARNING & *the* BRAIN®

conclusions

31

## Basic Psychological Processing Scores



LEARNING & *the* BRAIN®

conclusions

32

## The case of Rocky

- ▶ He has Planning and Successive weaknesses
- ▶ Met DSM for ADHD
- ▶ Met SLD definition a “disorder in one or more of the basic psychological processes”

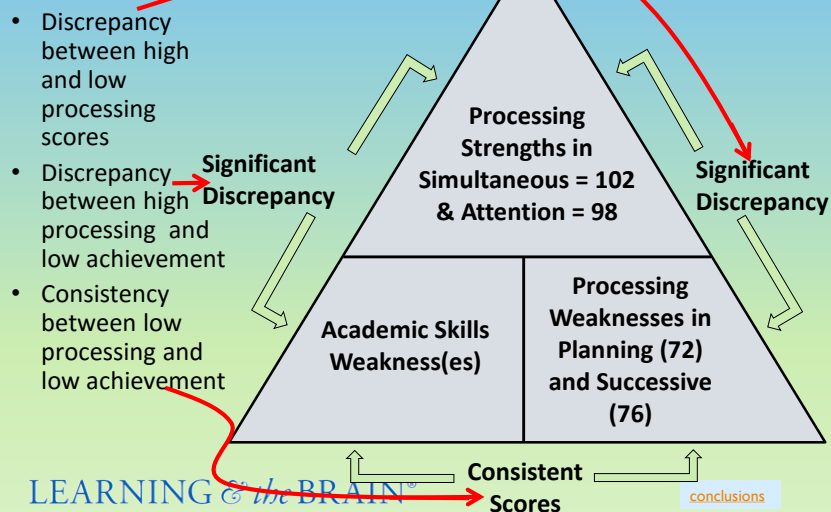
	Score	Diff	Significant	S/W
Planning	72	-15.0	yes	Weakness
Simultaneous	102	15.0	yes	
Attention	98	11.0	yes	
Successive	76	-11.0	yes	Weakness
PASS mean	87.0			

LEARNING & the BRAIN®

conclusions

33

## Discrepancy Consistency Model for SLD

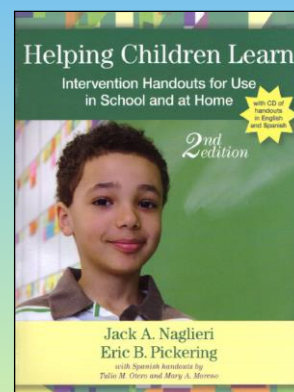


## Talk and Plan

- In your group, determine what strategies interventions you would use to support Rocky in the classroom setting?
- Use your resources...
  - What ARE the resources you have available?

## Interventions

- Helping Children Learn Intervention Handouts for Use in School and at Home, *Second Edition*  
By Jack A. Naglieri, Ph.D., & Eric B. Pickering, Ph.D.,
- Spanish handouts by Tulio Otero, Ph.D., & Mary Moreno, Ph.D.



## Interventions for Rocky

### Using Plans to Overcome Anxiety

### Graphic Organizers for Connecting and Remembering Information

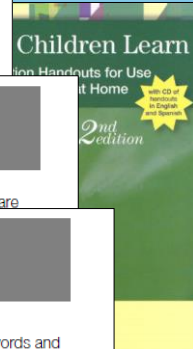
Remembering and relating information is a common part of learning and daily life. Students are

### Segmenting Words for Reading/Decoding and Spelling

Decoding a written word requires the person to make sense out of printed letters and words and

### 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



## Brain Break

- Sarina does an energizing brain break

## Machete Wisdom in Belize

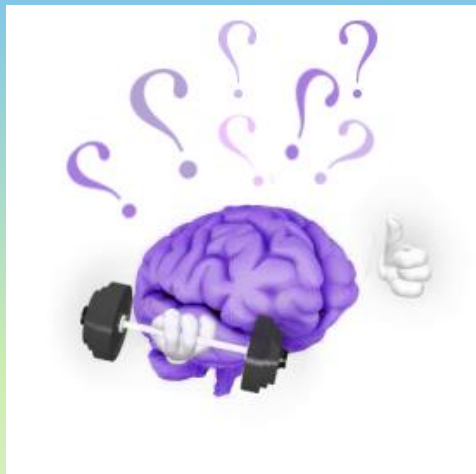


- Growth Mindset Lesson from a Wise Father in the Jungles of Belize
- New Bike
- New Machete
- You'll never regret it and one day, you'll get it.

LEARNING & *the* BRAIN®

www.kathleenkryza.com  
conclusions

## Mindsets



LEARNING & *the* BRAIN®

conclusions Pg. 12-18

## Try These Riddles

- It walks on four legs in the morning, two legs at noon and three legs in the evening. What is it?
- I am the beginning of the end, and the end of time and space. I am essential to creation, and I surround every place. What am I?
- What always runs but never walks, often murmurs, never talks, has a bed but never sleeps, has a mouth but never eats?

LEARNING & *the* BRAIN®

conclusions

## Group Discussion:

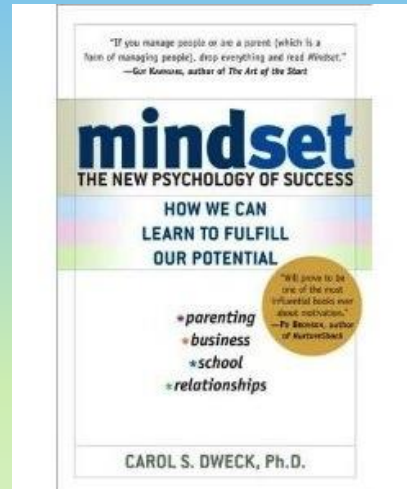


- How did you ***feel*** when you were trying to solve the puzzles/riddles?
- What types of messages were going on in your head before, during and after?

LEARNING & *the* BRAIN®

conclusions

## Carol Dweck, Stanford University



LEARNING & *the* BRAIN®

conclusions

## Dweck's findings: Two Mindsets



Fixed mindset:

- ❖ **Intelligence and talent - fixed**
- ❖ Innate talent creates success
- ❖ Effort will not make a difference
- ❖ You either get it or you don't
- ❖ **LOOK GOOD AT ALL COSTS**



Growth mindset:

- ❖ Thinking Skills can be developed
- ❖ Brains and talent are just the starting point
- ❖ Enjoy effort and process of learning
- ❖ You can always grow and learn
- ❖ **LEARN AT ALL COSTS**

LEARNING & *the* BRAIN®

conclusions





&



What behaviors would you see exhibited in the classroom

Look Good at All Costs

Vs.

Learn at All Cost

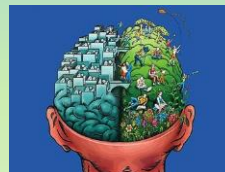
LEARNING & the BRAIN®

conclusions

## Dweck's Research Shows...

- 7<sup>th</sup> Graders Struggling
- Group One  
Intervention: Study Skills Training
- No statistically significant change
- Group Two  
Intervention: Mindset Discussion and, then, Study Skills
- Group Two Grew!

➤ If we want to grow their *skill set*, we must also shape their *mindset!*

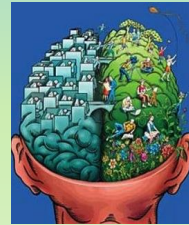


LEARNING & the BRAIN®

conclusions

## Updates from Dweck

- Not the new self esteem movement
- Quality of effort. (meta-strategic effort)
  - Mindsets Plus Skills Sets Equals Results
- We have both fixed and growth mindset.
- Know what triggers ***your*** fixed mindset and how to pull yourself back
- Live Mindsets all the time!



LEARNING & *the* BRAIN®

conclusions

47

## If you are going to develop growth mindset learners...

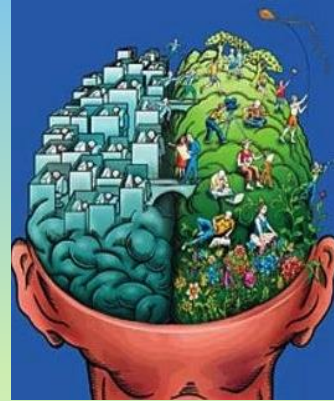
- Gets students to “Feel” what their mindsets are when learning gets challenging.

LEARNING & *the* BRAIN®

conclusions

## Do a “Feel It” Activity

- Choose a task that is going to be challenging for your students.
  - Math Puzzles
  - Riddles
  - Pop Quiz
  - Origami
- Ask students how they felt and what they said to themselves when the task became hard.



LEARNING & *the* BRAIN®

conclusions

## If you are going to develop growth mindset learners...

- Gets students to “Feel” what their mindsets are when learning get’s challenging
- Intentionally and transparently teach students about growth mindsets and how the brain works.

LEARNING & *the* BRAIN®

conclusions

## Teach Kids About Their Amazing Brains!



LEARNING & *the* BRAIN®

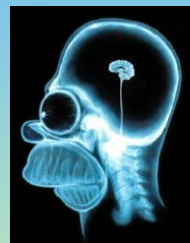
conclusions





## Mindset Review

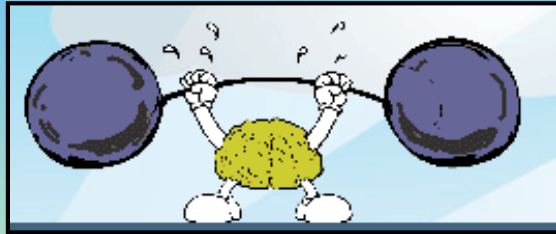
- **Fixed** mindset – ability cannot change
- **Growth** mindset – ability can change (grow) with effort



LEARNING & the BRAIN®

conclusions

Carol S. Dweck, Stanford University  
[www.brainology.us](http://www.brainology.us)



**“The growth mindset confirms the new research which reveals *that thinking skills can be developed*, and expertise can be built by means of deliberate practice.”**

LEARNING & *the* BRAIN®

conclusions



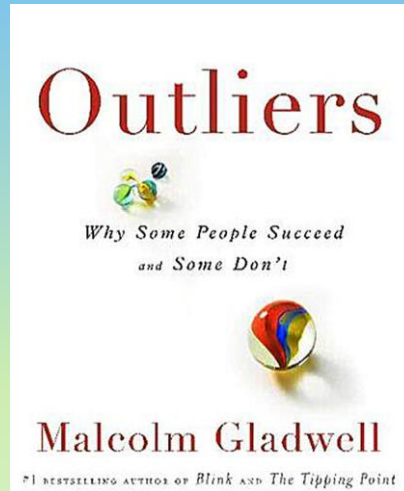
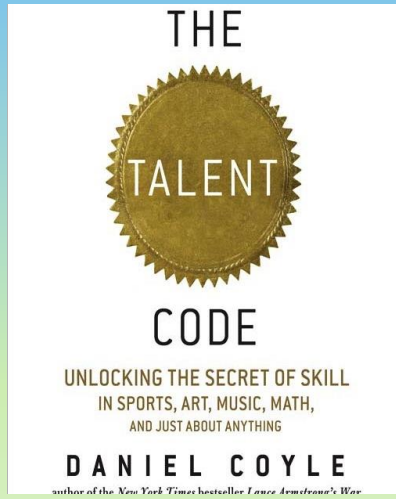
LEARNING & *the* BRAIN®

conclusions

56



## Practice, Practice, Practice!

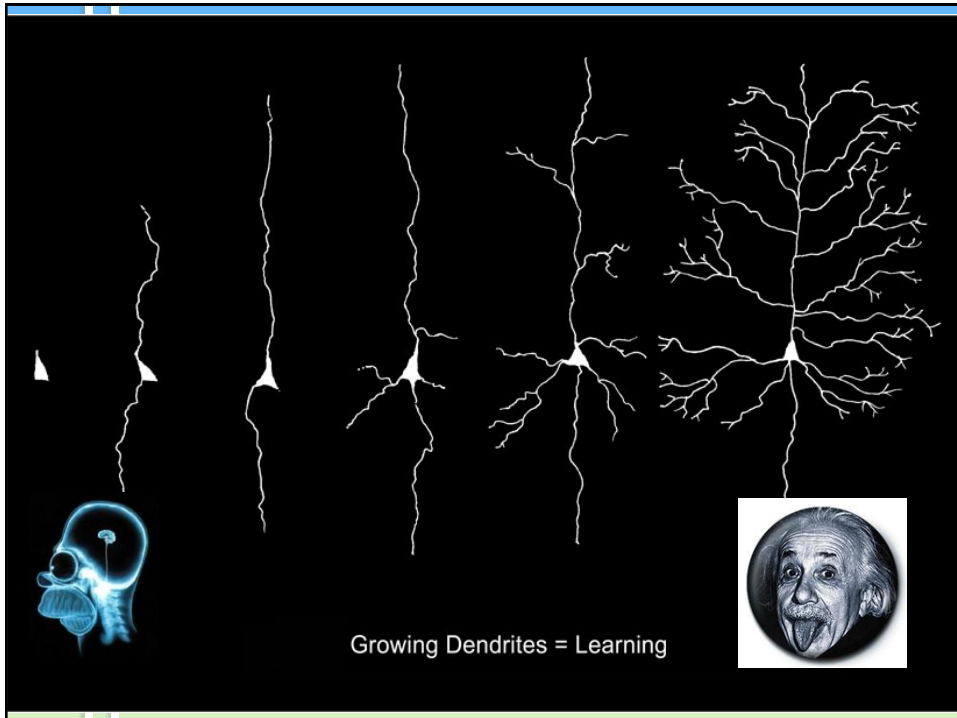


LEARNING & *the* BRAIN®

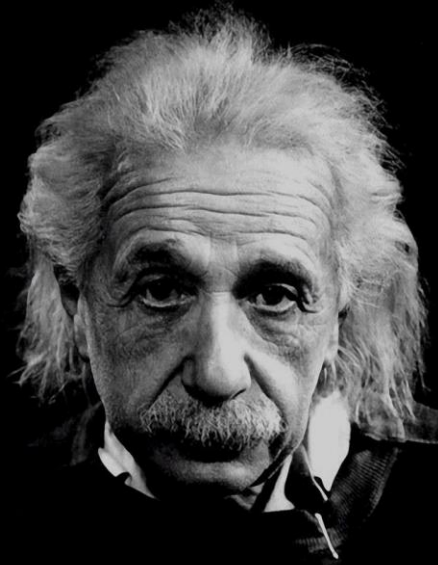
conclusions





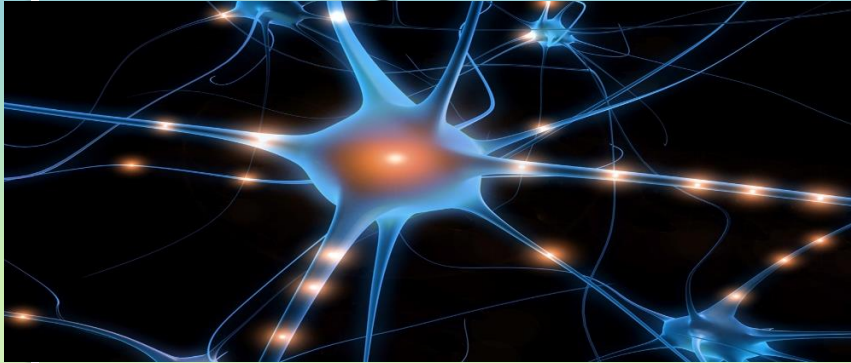


"I am neither clever nor  
especially gifted. I am only  
very, very curious."  
-Albert Einstein



From neuroscience we know that...

## Neurons that fire together Wire together!



LEARNING & *the* BRAIN®

conclusions

## Measure of Mindset – Child Adolescent (Naglieri & Kryza, © 2015)

### Measure of Mindset (MOM-CA)

Jack A. Naglieri & Kathleen M. Kryza - Copyright © 2015

Name \_\_\_\_\_  
Date \_\_\_\_\_

Instructions: These 10 questions ask about how you think and feel. The answers you give can help us know your thoughts about how you learn. Please read every question carefully and circle the number under the word that tells what you do.

	Never	Sometimes	Most times	Always
1 I don't give up easily.	0	1	2	3
2 When things get hard I say "I can do it!"	0	1	2	3
3 When I fail I try harder until I get it done.	0	1	2	3
4 I believe that I can learn from my mistakes.	0	1	2	3
5 I think I can do almost anything if I try hard enough.	0	1	2	3
6 When I don't understand something I give up.	0	1	2	3
7 I do not like to be challenged.	0	1	2	3
8 When work is hard I think, "I can't do it".	0	1	2	3
9 When things get hard I do something else.	0	1	2	3
10 When I fail I do something else that is more fun.	0	1	2	3

Note: Copyright © 2016 Naglieri & Kryza. This may be duplicated for educational use only.

LEARNING & *the* BRAIN®

conclusions

62

## Measure of Mindset: Teacher Parent

(Naglieri & Kryza, 2015)

Measure of Mindset (MOM-TP)					
Jack A. Naglieri & Kathleen M. Kryza - Copyright © 2015					
Name _____					
Date _____					
	Never	Sometimes	Most times	Always	
1	He/she doesn't give up easily.	0	1	2	3
2	When things get hard he/she says "I can do it!".	0	1	2	3
3	Failure leads him/her to try harder until the task is finished.	0	1	2	3
4	He/she views failure as an important part of learning.	0	1	2	3
5	He/she believes that you can do anything if you try hard enough.	0	1	2	3
6	He/she is afraid of failure.	0	1	2	3
7	When things get hard he/she avoids the work.	0	1	2	3
8	He/she believes that hard work usually does not pay off.	0	1	2	3
9	He/she is fast to give up on a task.	0	1	2	3
10	He/she views failure as an important part of learning.	0	1	2	3

Note: Copyright © 2016 Naglieri & Kryza. This may be duplicated for educational use only.

LEARNING & *the* BRAIN®

conclusions

63

## If you are going to develop growth mindset learners...

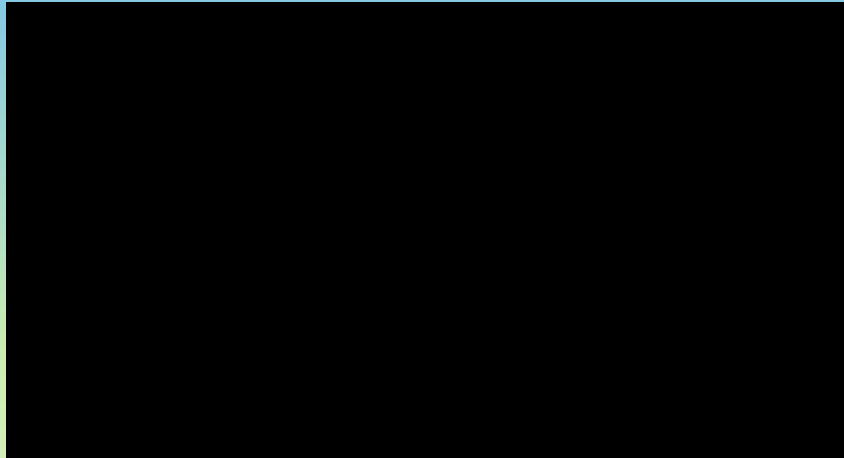
- Gets students to "Feel" what their mindsets are when learning gets challenging.
- Intentionally and transparently teach students about growth mindsets and how the brain
- Share lots of examples of Growth Mindsets in Action. (See Kathleen Kryza's Infinite Horizons You Tube Channel)

LEARNING & *the* BRAIN®

conclusions

## Examples of Growth Mindsets

(See Kathleen Kryza's Infinite Horizons You Tube Channel for more...)



LEARNING & the BRAIN®

www.kathleenkryza.com  
conclusions

## Growth Mindset: Nobel Peace Prize – 17 years old

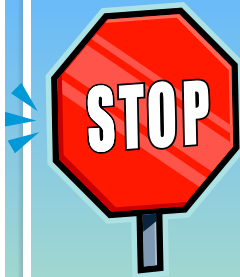
*"I think of it often and imagine the scene clearly.  
Even if they come to kill me, I will tell them what  
they are trying to do is wrong,  
that education is our basic right."*

~Malālah Yūsafzay



LEARNING & the BRAIN®

conclusions



&amp;



**Who is someone you know who demonstrates a growth mindset. Could be famous or close to home. Real or fictional. Share with your Core Group.**

ILS: STOP AND TALK: The brain retains 50% through talk

LEARNING & *the* BRAIN®

conclusions

## **If you are going to develop growth mindset learners...**

- **Gets students to “Feel” what their mindsets are when learning get’s challenging.**
- **Intentionally and transparently teach students about growth mindsets and how the brain**
- **Share lots of examples of Growth Mindsets in Action. (See Kathleen’s You Tube Channel)**
- **Make growth mindset talk visible with Anchor Charts**

LEARNING & *the* BRAIN®

conclusions

# Mindset Monday

## Keep Mindsets Alive



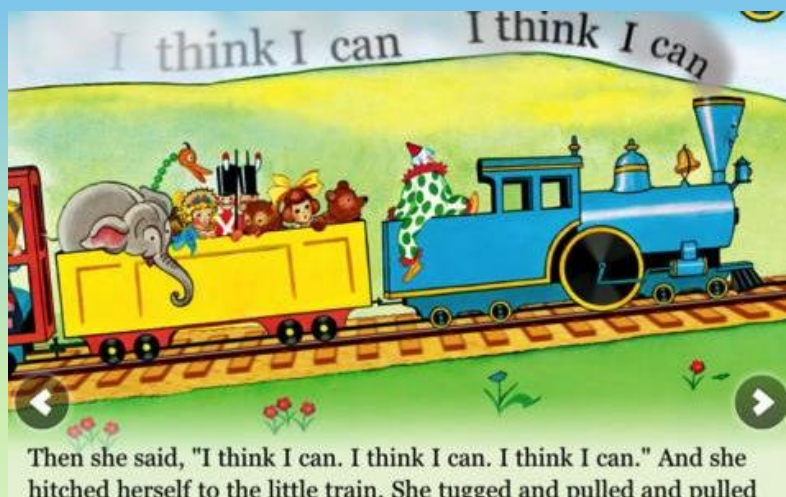
Start Monday with a growth mindset message...

- Video
- Quote
- Story
- News
- Song
- Local, National, World Hero

LEARNING & *the* BRAIN®

www.kathleenkryza.com  
2014 conclusions

## What's the message...

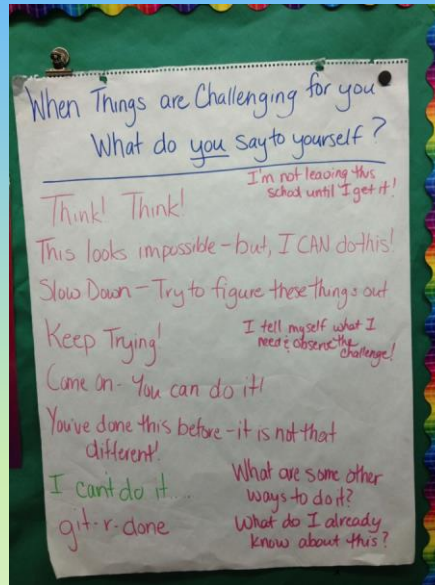


LEARNING & *the* BRAIN®

conclusions



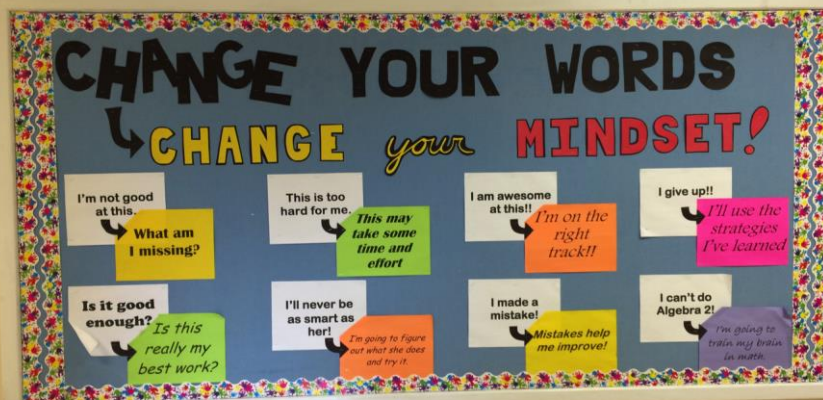
## Mindset Anchor Chart: Making Thinking Visible



LEARNING & the BRAIN®

conclusions

## Mountain View Alternative HS



LEARNING & the BRAIN®

conclusions



## My Brain Grows!

When I work hard my  
brain grows,  
All my effort really shows,  
I love learning, I love  
school,  
When I use my mighty  
tool,  
When I work hard my  
brain grows,  
All my effort really shows!



LEARNING & *the* BRAIN®

conclusions

I can't...

# YET!



LEARNING & *the* BRAIN®

conclusions

## If you are going to develop growth mindset learners...

- Gets students to “Feel” what their mindsets are when learning gets challenging.
- Intentionally and transparently teach students about growth mindsets and how the brain
- Share lots of examples of Growth Mindsets in Action. (See Kathleen’s You Tube Channel)
- Make growth mindset talk visible with Anchor Charts
- Talk Growth Mindset talk ALL the time, EVERYONE!

LEARNING & the BRAIN®

conclusions

## Dweck’s six studies of children

	Praised for <b>effort</b>	Praised for <b>ability</b>
goals	90% of the group created learning goals	66% of the group created performance goals
enjoyment	continued	decreased
persistence	continued	decreased
performance	improved	declined
lied about scores	one individual	40%

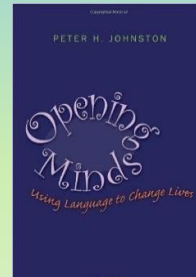
LEARNING & the BRAIN®

conclusions

## Choice Words Create Internal Locus of Control

➤ *"I bet you're proud of yourself!"*

Invites a child [teacher] to attend to internal feelings of pride, building upon the sense of agency, and at the same time attaches an internal motivation to the activity



LEARNING & the BRAIN®

conclusions

**OWN IT!**  
**Empowerment**





## Three Finger Self-Assessment

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

LEARNING & *the* BRAIN®

conclusions



We must constantly remind ourselves that the ultimate purpose of evaluation is to have students become self evaluating. If students graduate from our schools still dependent upon others to tell them when they are adequate, then we've missed the whole point of what education is about.

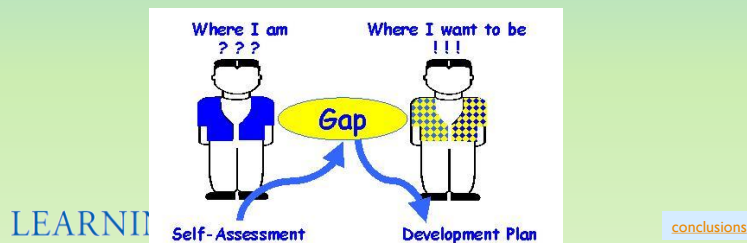
-- Costa and Kallick, 1992

LEARNING & *the* BRAIN®

conclusions





## Self-assessment is **KEY** to becoming metacognitive and self-regulating

- Starting with clear learning targets, students can self assess...
  - **Their mindsets**
  - **Their behaviors**



## Self-Assess on Mindsets:

*Kids need to internalize that Mindsets Plus Skill Sets Equal Results*

A - EFFORT RUBRIC		
4 (Growth Mindset)		I worked on the task until they are finished. I saw difficulties as opportunities to strengthen my understanding.
3 (Fairly Growth)		I worked on the tasks until they are finished. I tried even when it was difficult.
2 (Somewhat Fixed)		I put some effort into tasks, but I stopped working when it became difficult.
1 (Fixed Mindset)		I did not try.

LEARNING & the BRAIN®

conclusions

## Behavior Self-Assessment



I worked hard and did my very best at my job today.



I did okay at doing my job today.



I did not do my job today because...  
(explain your choices today)

LEARNING & *the* BRAIN®

conclusions



## Building the Big Picture

Big Idea :PASS

Subheadings:

Planning

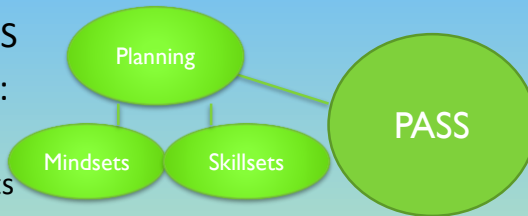
Mindsets

Skill Sets

Attention

Successive

Simultaneous



You will be capturing the big idea of each key part of PASS on your organizer after we teach each section.

LEARNING & the BRAIN®

conclusions

85

## More Mindset Strategies [www.kathleenkryza.com](http://www.kathleenkryza.com)



*Developing Growth Mindsets  
In the Inspiring Classroom*

*Give it a Go Guide*

inspiring  
Learners

Kathleen Kryza, Alicia Duncan, Joy Stephens

[www.inspiringlearners.com](http://www.inspiringlearners.com)

See the last page of  
your handbook to sign  
up for our newsletter

LEARNING & the BRAIN®

conclusions



## Mindful Moment and Self Regulation

### How's Your Engine Revving?

- Too High? Too Low?  
Just Right?
- Do you need to energize yourself or calm yourself?
  - Energize: Do an energizing movement or activity
  - Calm: Deep breathing and deep muscle stretches

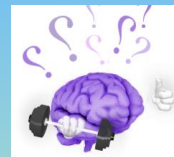


LEARNING & the BRAIN®

conclusions

## Winning Formula to Think Smart!

$$\begin{array}{c}
 \text{Mindsets} \\
 + \\
 \text{Skill Sets} \\
 \hline
 = \text{RESULTS!}
 \end{array}$$



LEARNING & the BRAIN®

colPG1012



LEARNING & *the* BRAIN®

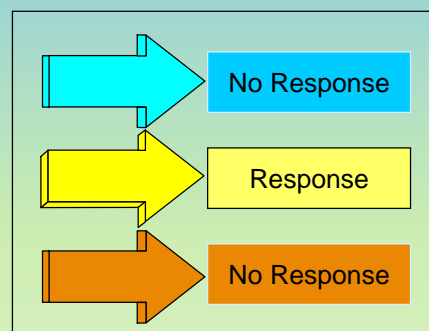
conclusions 89

## PASS Theory

► **Attention** is a basic psychological process we use to selectively attend to some stimuli and ignores others

- focused cognitive activity
- selective attention
- resistance to distraction

**RED**  
**BLUE**



LEARNING & *the* BRAIN®

conclusions

90

## CAS2: Rating Scale Attention

Directions for Items 21–30. These questions ask how well the child or adolescent pays attention and resists distractions. The questions also ask about how well someone attends to one thing at a time. Please rate how well the child or adolescent pays attention.

During the past month, how often did the child or adolescent . . .

	Never	Rarely	Sometimes	Frequently	Always
21. work well in a noisy area?	0	1	2	3	4
22. stay with one task long enough to complete it?	0	1	2	3	4
23. not allow the actions or conversations of others to interrupt his or her work?	0	1	2	3	4
24. stay on task easily?	0	1	2	3	4
25. concentrate on a task until it was done?	0	1	2	3	4
26. listen carefully?	0	1	2	3	4
27. work without getting distracted?	0	1	2	3	4
28. have a good attention span?	0	1	2	3	4
29. listen to instructions or directions without getting off task?	0	1	2	3	4
30. pay attention in class?	0	1	2	3	4

— + — + — + — + — =   
Attention Raw Score

LEARNING & the BRAIN®

conclusions

91

## CAS2 Expressive Attention

- n The child says the color not the word
- n Score is time and number correct

RED	BLUE	GREEN	YELLOW
YELLOW	GREEN	RED	BLUE
RED	YELLOW	YELLOW	GREEN
BLUE	GREEN	RED	BLUE
GREEN	YELLOW	RED	YELLOW

LEARNING & the BRAIN®

conclusions

92

# READY ?

LEARNING & *the* BRAIN®

conclusions

93

# BLUE!

## Expressive Attention - Italiano

ROSSO	BLU	VERDE	GIALLO
GIALLO	VERDE	ROSSO	BLU
ROSSO	GIALLO	GIALLO	VERDE
BLU	VERDE	ROSSO	ROSSO
VERDE	GIALLO	BLU	GIALLO

LEARNING & the BRAIN®

conclusions

95

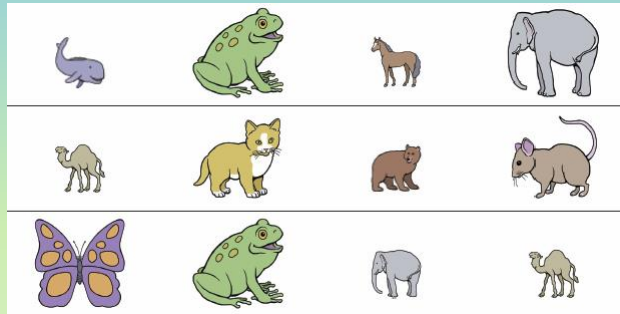
## Expressive Attention – Korean CAS

- The child says the color not the word

빨강	파랑	초록	노랑
노랑	초록	빨강	파랑
빨강	노랑	노랑	초록
초록	파랑	초록	빨강
초록	노랑	빨강	노랑

## Expressive Attention: 5-7 years

The child tells if the animal is large or small, regardless of the relative size on the page.



LEARNING & *the* BRAIN®

conclusions

97

## Number Detection

- Items 1 - 4 have 180 numbers on each page
- Each child is given two pages
- Targets appear at the top of the page
- Score for targets found and

false detections

Find the numbers that look like this: 1 2 3

5	2	1	2	3	6	4	3	6	3	3	4
5	2	3	1	6	4	1	4	4	6	1	5
4	5	2	2	3	4	1	2	8	3	2	3
6	5	2	3	6	3	1	4	1	5	1	1

that look like this:

1	4	2	6	4
3	3	1	2	6
1	5	6	2	3

4 6 1 6 4 3 2 4 2 5 3 6

LEARNING & *the* BRAIN®

conclusions

98

## Attention

11. A 3:15 A.M.  
B 3:30 P.M.  
C 3:15 P.M.  
D 3:15 A.M.



leave school

12. Trent began studying at 5:00 P.M. and finished 1 hour and 22 minutes later. What time did he finish?

A 6:22 A.M. B 5:22 P.M. C 6:10 P.M. D 6:22 P.M.

13. Maura began basketball practice at 3:00 P.M. and finished 50 minutes later. What time did she finish?

A 3:50 P.M. B 3:05 A.M. C 4:05 P.M. D 4:50 A.M.

11. 3:15 P.M.

12. 6:22 P.M.

13. 3:50 P.M.

Reading comprehension is difficult because of the similarity of the options

LEARNING & the BRAIN

conclusions

99

## Building the Big Picture

Big Idea :PASS

Subheadings:

Planning

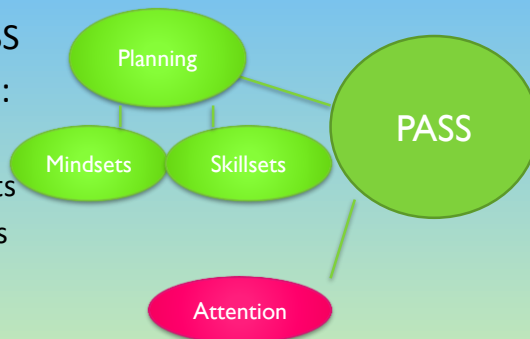
Mindsets

Skill Sets

Attention

Successive

Simultaneous



You will be capturing the big idea of each key part of PASS on your organizer after we teach each section.

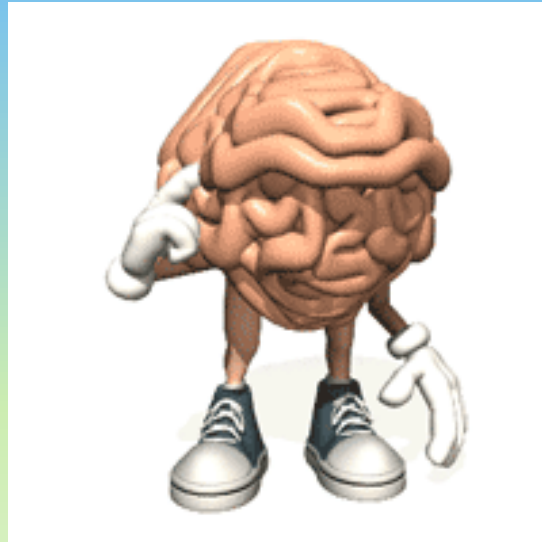
LEARNING & the BRAIN®

conclusions

100



## Am I paying attention?



LEARNING & the BRAIN®

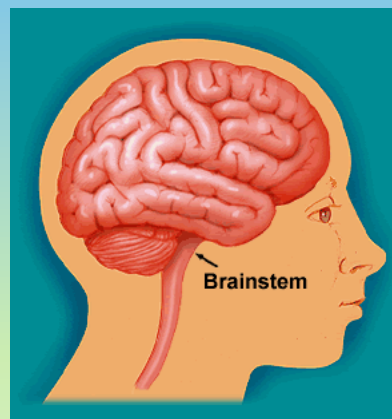
conclusions

101

## Pay Attention

Intentionally and Transparently Teach Students...

- **Focus** and know what to focus on
- Learn to **Resist** distractions
- **Sustain** attention over time



LEARNING & the BRAIN®

conclusions

102

# PRACTICE

**SIT**

**FOCUS ON YOUR BREATH**



## Put Your Phone's Down!

- "People can't multitask very well, and when people say they can, they're deluding themselves," said neuroscientist Earl Miller.
- "The brain is very good at deluding itself."



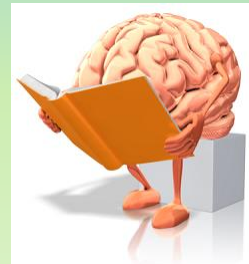
LEARNING & *the* BRAIN®

conclusions

104

## Focus: Attention on the Text

- Notice and Name (call attention to...)
  - Text Features
  - Text Structures
- Read in **Chunks**/Stop and **Chew**
  - Annotate – Text in report covers
  - Sticky notes
  - Reading logs
  - Double Entry Journals



LEARNING & the BRAIN®

## SUSTAIN: 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.

LEARNING & the BRAIN®

conclusions

# PASS Theory: Attention

Examples of classroom problems related to Attention

- Trouble focusing on what is important
- Difficulty resisting distractions
- Difficulty working on the same task for very long
- Unable to see all the details
- Providing incomplete or partially wrong answers

Naglieri, J. and Pickering, E., *Helping Children Learn*, 2003

10

LEARNING & the BRAIN®

conclusions

## ATTENTION CASE STUDY: FRANKIE



LEARNING & the BRAIN®

ns

108

## Frankie – Attention CW

- Referred by parents (at age 11) after a history of reading difficulties and self esteem problems
- Cognitive Assessment System
- WJ-R, WRAT-3, PPVT-III
- Behavioral/Emotional
  - Devereux Scales of Mental Disorders
- Self Concept
  - Bracken Multidimensional Self Concept Scale



LEARNING & *the* BRAIN®

conclusions

109

## Frankie

- High level of anxiety
  - he was too anxious to look closely at the words, and he would rather get the task completed and move on.
  - Frankie could not attend to the details of the sequence of letters for correct spelling, and the order of sound–symbol associations



Figure 3.4. Frankie's self-portrait.

LEARNING & *the* BRAIN®

conclusions

110

## Frankie

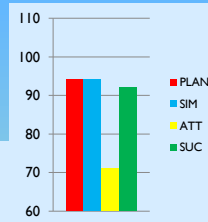
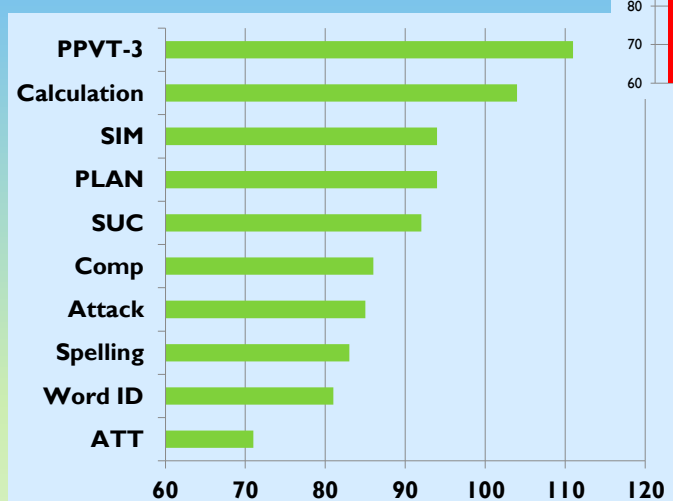
Tests	Score	%tile
Letter-Word Id	81	10
Passage Comp	86	17
Word Attack	85	16
Spelling	83	13
Calculation	104	60
PPVT-III	111	82

LEARNING & the BRAIN®

conclusions

111

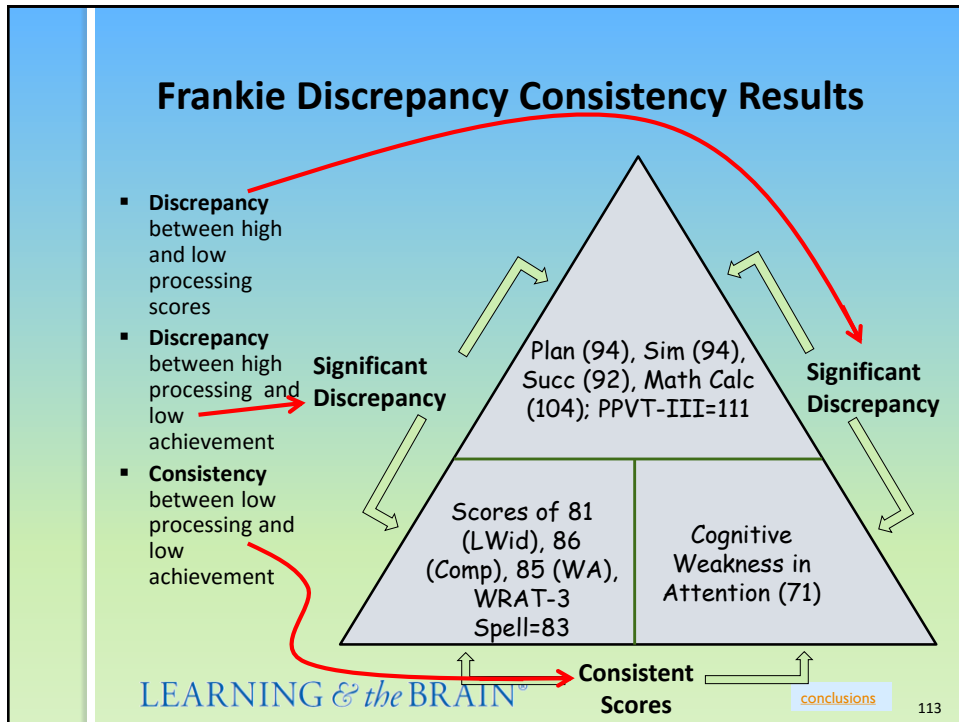
## Frankie



LEARNING & the BRAIN®

conclusions

112



## Frankie

➤ Frankie has weaknesses in Attention & achievement which are consistent with Inattentive Type of ADHD and:

Category	Score
PLAN	95
SIM	95
ATT	70
SUC	92

**ED.gov** U. S. Department of Education  
Promoting educational excellence for all Americans

Regulations: Part [300](#) / [A](#) / [300.8](#) / [c](#) / [9](#)

**Browse Major Topics**

- Alignment with the No Child Left Behind Act
- Discipline
- Disproportionality
- Early Intervening Services (EIS)
- Evaluation and Reevaluation
- Funding
- Highly Qualified

**(9) Other health impairment means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that--**

**(i) Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and**

**(ii) Adversely affects a child's educational performance.**

114



## Think and Talk



&



What would you recommend as possible interventions for Frankie's attention challenges?

NOTE: STOP AND TALK is important because the brain retains 50% through talk.

LEARNING & the BRAIN®

www.kathleenkryza.com  
conclusions

## Intervention Protocol

- Help child understand their PASS strengths and areas of challenges ( **Intentional & Transparent**)
- Encourage Motivation & Persistence (**Mindsets**)
- Teach/Stress strategies for approaching tasks (**Skill Sets**)
  - Student generated
  - Model and Scaffold as needed
- Encourage independence and self efficacy (**Metacognition/Self Assessment**)

LEARNING & the BRAIN®

conclusions

116

## What Should Teachers & Parents do?

### How to Teach Students to Attend

Think smart and  
look at the details!

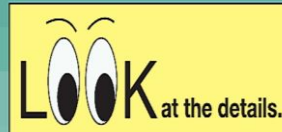


Figure 1. A graphic that reminds students to focus on information being discussed.

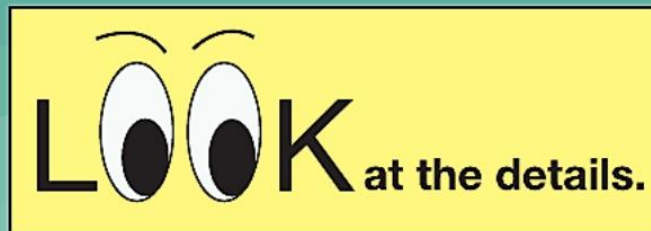
The first step in teaching children about their own abilities is to explain that they have many different types of abilities and that Attention is one of them. They also need to be aware of when their attention is focused and they are resisting distractions, as well as when it is divided among too many things, which leaves them unfocused and overloaded. In Figure 1 (which also appears in the PASS poster on the CD), we provide a fast and simple message: "Think smart and look at the details!" During appropriate times during the day, remind students to closely attend to information being discussed. We need to teach children to approach *all* their work with an understanding of how well they are focused on the details and resisting distractions in their environment. Throughout the day, the teacher should

1. Teach children to be aware of their level of attention and resistance to distraction.
2. Encourage children by asking: "Are you able to focus?" or "Are you getting distracted?"
3. Remind the students that Attention is necessary for reading, writing, and arithmetic, as well as in sports, playing a musical instrument, driving a car, and so forth.
4. Teach children that they may have to modify their environment so that they can attend better.
5. Remind students that learning requires attention to detail and resisting distractions.

LEAR

## Focus: Am I paying attention?

Think smart and  
look at the details!



LEARNING & the BRAIN®

conclusions

118

# Frankie

Help  
Frankie  
better  
manage his  
attention  
problem

LEARNING & the B

## Overcoming Problems with Inattention

Attention is the process a person uses to focus thinking on a particular stimulus while ignoring others. Throughout a school day, a student must pay attention to the teacher, the instructions being given, what must be done, and what specific materials are needed, while ignoring other students talking, students playing outside the window, and a cart rolling by in the hall. Attention processes allow a child to selectively focus on things heard or seen and resist being distracted by irrelevant sights and sounds. Focused attention is direct concentration on something, such as a specific math problem. Selective attention involves the resistance to distraction, such as listening to the teacher and not the cart in the hall. Sustained attention is continued focus over time.

Some children have difficulty with focused thinking and resisting distractions. These children fit the description of attention-deficit/hyperactivity disorder (ADHD), predominantly inattentive type (American Psychiatric Association, 2000). Children with the inattentive type of ADHD are different from those with the predominantly hyperactive-impulsive type of ADHD, which is described by Barkley and Murphy (1998) as a delay in the development of inhibition, disturbed self-regulation, and poor organization over time. Children with ADHD, hyperactive-impulsive type cannot control their behavior and have inattention problems that are related to a failure in the process of planning on the Cognitive Assessment System (CAS; Naglieri, 1999).

### How to Help a Child Overcome Problems with Inattention

The first step is to help the child understand the nature of his or her Attention problems, including

1. Concepts such as Attention, resistance to distraction, and control of Attention
2. Recognition of how Attention affects daily functioning
3. Recognition that the deficit can be overcome
4. Basic elements of the control program

Second, teachers and parents can help the child improve his or her motivation and persistence:

1. Promote success via small steps.
2. Ensure success at school and at home.
  - Allow for oral responses to tests.
  - Circumvent reading whenever possible.
3. Teach rules for approaching tasks.
  - Help the child to define tasks accurately.
  - Assess the child's knowledge of problems.
  - Encourage the child to consider all possible solutions.
  - Teach the child to use a correct test strategy (Pressley & Woloshyn, 1995).

19

## Frankie - Intervention

- Level I: Help child understand the deficit
  - Attention, resistance to distraction,
  - Recognition of how the deficit affects daily functioning
- Level II: Improve Motivation & Persistence
  - Promote success via small steps
  - Ensure success at school and at home
  - Allow for oral responses to tests to circumvent reading when possible

LEARNING & the BRAIN®

conclusions

120

## Frankie - Intervention

- Teach rules for approaching tasks
  - Define tasks accurately
  - Assess child's knowledge of the problem
  - Consider ALL possible solutions
  - Evaluate value of all possible solutions
  - Checking work carefully is required
  - Correct your own test strategy (see Pressley & Woloshyn, 1995, p. 140).

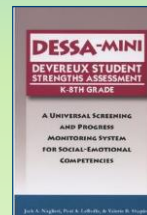
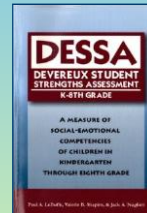
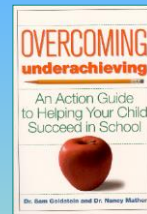
## Frankie - Intervention

- Discourage passivity / encourage independence
  - Teacher should only provide as much assistance as is needed
  - Discourage exclusive use of teacher's solutions
  - Child needs to correct own work
  - Child needs to learn to be self-reliant (Scheid, 1993).

## Frankie – Intervention Social-Emotional

- Improve resilience and self-esteem – see Goldstein & Mather's book for suggestions
- Measure social-emotional competence in all students especially those who are experiencing learning problems
  - 72-item *DESSA* to find specific areas of need
  - Universal screening with 8-item *DESSA-mini*

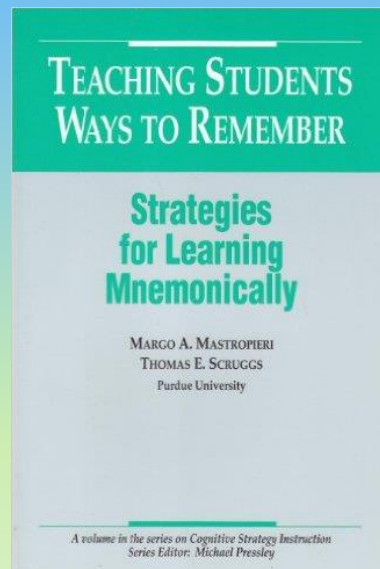
LEARNING & the BRAIN®



123

## Mastropieri & Scruggs (1991)

- Mnemonics are strategies:
  - for learning
  - for improving memory
- Topics include:
  - vocabulary, science, reading, spelling, math



LEARNING & the BRAIN

conclusions

124

# Frankie

## ➤ Spelling

- Strategies for Spelling (pp.102–103)
- Segmenting Words for Reading/Decoding and Spelling (p. 89)
- These are designed to help him perform better when tasks require a lot of Successive processing.

LEARNING & the BRAIN®

conclusions

125

# Frankie - Use Planning Strength

102

## Strategies for Spelling

Spelling is an activity that requires the recall of specific letters in order and combining sounds with letter groups so that words can be recognized. Good spellers are skilled at memorizing how to correctly spell words even when the words are difficult or unpredictable. Often, spelling lists are given and students write the words over and over or rewrite them alphabetically. In order to make spelling easier for these students, give them a plan or strategy that includes various rules for spelling. A child who knows or has access to various spelling rules is likely to be able to spell many words correctly, rather than just the few that have been memorized. This intervention is intended to help students use certain rules or plans to spell words, particularly ones that are commonly misspelled or are spelled in a way other than how they sound.

When a child uses a rule or plan to spell, the answer is obtained by thinking (using the plan or rule), rather than just relying on remembering the string of letters. For example, a student may want to spell *science* but may not be sure of the order of the letters. If the child is taught the rule "i before e except after c," then he or she is more likely to spell the word correctly. This strategy changes the task from one that demands Successive processing to one that involves Planning.

### How to Teach Strategies for Spelling

Following are a number of rules and strategies for spelling words. This list is not intended to be exhaustive, but it includes many of the major rules used for spelling. These rules may be varied, and the more memorable they are for the student, the more likely they are to be used (see the Mnemonics for Spelling handout [p. 101] for additional interventions). Students also need to understand that these are rules of thumb, and in some cases the rules do not work for every word.

- Write *i* before *e* except after *c* (e.g., *receive*, *perceive*, *field*, *believe*, *niece*, *siege*).
- The letter *q* is always written with *u* and sounds like "kw."
- The vowel *y*, not *i*, is used at the end of English words (e.g., *my*).
- The majority of nouns in English form their plural by simply adding a final *-s*.
- Nouns that end with *-s*, *-z*, *-x*, *-sh*, *-ch*, and *-o* form their plural by adding *-es* (e.g., *glasses*, *buzzes*, *boxes*, *bushes*, *switches*, *potatoes*, *heroes*). Some exceptions include *studios*, *pianos*, *kangaroos*, and *zoos*.
- To form plurals for nouns that end in a consonant and *-y*, change *-y* to *-i* and add *-es* (e.g., *babies*, *spies*, *puppies*).
- To form plurals for nouns that end in *-f* or *-fe*, change the *-f* to *-v* and add *-es* (e.g., *lives*, *wives*, *wives*, *wives*).

### Strategies for Spelling (continued)

- When a two-syllable word ends with a vowel final syllable, double the final consonant (e.g., *admitting*).
- Words with a silent final *e* are written with a vowel (e.g., *having*, *writing*, *biking*).
- After a single vowel at the end of a one-syllable word, double the final consonant (e.g., *full*, *puff*, *pass*).
- The letter *s* never follows the letter *x* (e.g., *axis*).
- *Al* is written with one *l* when added to another syllable (e.g., *ill* and *fill*).
- The letter *z*, never *s*, is used for the "z" sound (e.g., *zipper*).
- Words beginning with a vowel and ending with a vowel are written with a *y* (e.g., *desire*, *desire*). There are some exceptions to this general rule (e.g., *series*).
- Only one word ends in *-sede*: *supersede*. *Proceed*, *succeed*. All other words ending in *-cede*, *precede*, *recede*.

### Some Other Strategies

- Take the word apart. Break down words at the word competition. Why is it spelled that way? A petition is a petition of two or more people to a government. You get the correct spelling by dividing the word into two parts: *peti* and *tion*.
- Identify prefixes. A prefix is a letter or group of letters that is added to the beginning of a word. If a word has a prefix, imagine that there is a root word. You can generally see the correct spelling of the root word by looking at the prefix. A word that is combined with the same sound (e.g., *actual-ly*, *soul-ly*) are different (e.g., *sincere-ly*, *clever-ness*).

### Who Should Learn Strategies for Spelling

## Frankie - Use Planning Strength

- This strategy helps him organize the sequence of sounds and letters thereby focus is achieved

LEARNING &

### 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 chunks. The teacher should present the following methods in a direct and explicit manner:

- Take the word apart. Break down the word into its component parts or syllables. For example, look at the word *reshaped*. It includes the main word *shape* with the prefix *re-* and the ending *-d*. Knowing that the main word *shape* has *re* and *d* added makes it easier to recognize than to try and sound out *r-e-s-h-a-p-e-d*.
- Identify prefixes. A prefix is a letter or group of letters at the beginning of a word. When a word has a prefix, imagine that there is a hyphen between the word and the prefix, and you can usually see the main word. For example, *misstep* includes the prefix *mis-* and the word *step* that are simply put together.
- Identify suffixes. Similarly, when a word has a suffix (i.e., a letter or group of letters at the end), you can often use a strategy similar to the prefix strategy. Just imagine a hyphen between the word and the suffix (e.g., *heart-less*).

#### Who Should Learn This Technique?

## Is Frankie a Typical ADHD Child?

LEARNING & the BRAIN®

conclusions

128



129

# ADHD

Hyperactive-Impulsive Type

LEARNING & *the* BRAIN®

conclusions

## Case of Christopher - Is He ADHD?

### ➤ Problems

- behavior problems
- impulsive & disorganized
- forgets assignments
- can't stay on task
- poor grades

### ➤ Clinical Observations

- anxious about testing
- used simple strategies
- did sloppy work

- control problems (threw pencil when frustrated)
- impulsive choices made

### ➤ RESULTS

#### ➤ CBCL Externalizing = 68

- failure in control, impulsivity problems, arguing, attention-getting behaviors.

LEARNING & *the* BRAIN®

130

conclusions

## Case of Christopher (continued)

### ➤ WISC-III (FS = 106)

VC = 114 PO = 102

FD = 96 PS = 94

### ➤ WJ-Achievement

#### ■ Broad Reading = 106

• Comprehension = 117

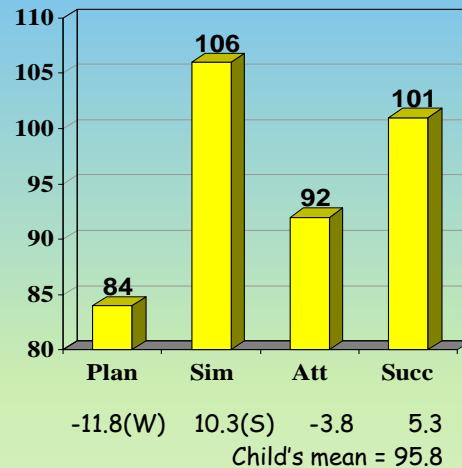
• Word Attack = 108

• Dictation = 82

#### ■ Broad Math = 100

• Applied Problems = 93

• Calculation = 86



LEARNING & the BRAIN®

conclusions <sup>131</sup>

## Intervention Protocol

- Help child understand their PASS strengths and areas of challenges ( **Intentional & Transparent** )
- Encourage Motivation & Persistence ( **Mindsets** )
- Teach/Stress strategies for approaching tasks ( **Skill Sets** )
  - Student generated
  - Model and Scaffold as needed
- Encourage independence and self efficacy ( **Metacognition/Self Assessment** )

LEARNING & the BRAIN®

conclusions

132

## Think and Talk



&



What would you recommend as possible interventions for Christopher's planning AND attention challenges?

NOTE: STOP AND TALK is important because the brain retains 50% through talk.

LEARNING & the BRAIN®

www.kathleenkryza.com  
conclusions

## Helping Children Learn

- Planning Facilitation
- Plans for Basic Math Facts
- Touch Math for Calculation
- Seven Step Strategy for Math Word Problems
- Chunking Strategy for Multiplication
- Other ideas?

LEARNING & the BRAIN®

134

conclusions

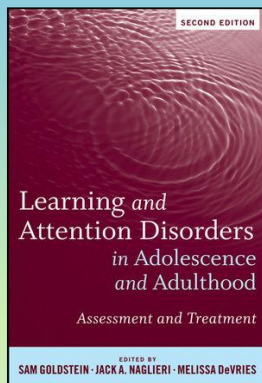
# IQ vs PASS

LEARNING & *the* BRAIN®

conclusions

135

## ADHD Profiles by Ability Test



LEARNING & *the* BRAIN

CHAPTER

6

## Assessment of Cognitive and Neuropsychological Processes

JACK A. NAGLIERI  
SAM GOLDSTEIN

### INTRODUCTION

Assessment of intelligence plays an important role in the process of determining if an adolescent or adult has a disability. For those suspected of having a Specific Learning Disability (SLD), the intelligence test provides an important reference point to compare to levels of achievement. For those who may have Attention-Deficit/Hyperactivity Disorder (ADHD), the measure of intelligence is used to rule out other disabilities that may better explain the person's behavior. Intelligence tests have and will continue to provide a critical component of any comprehensive assessment needed to determine the presence of disabilities, such as SLD and ADHD. Their importance, however, demands a thorough understanding of the strengths and limitations of these tests of ability, an appreciation of the research on their effectiveness, and an examination of modern views of assessing intelligence. The goal of this chapter is to address these issues.

This chapter reexamines intelligence as measured by traditional IQ tests with special attention to the utility such tests have for diagnosis. In order to achieve this goal, the chapter includes a brief overview of the history and definitions of intelligence and examines examples of measures of intelligence more closely. Emphasis will be placed on the importance of understanding how intelligence is conceptualized and measured by different tests and the implications this has for assessment. The chapter also provides a conceptual model of assessment of basic psychological processes and how that information can aid in the diagnostic process and treatment of adolescents and adults.

## Naglieri & Goldstein (2011)

### GROUP PROFILES BY ABILITY TEST

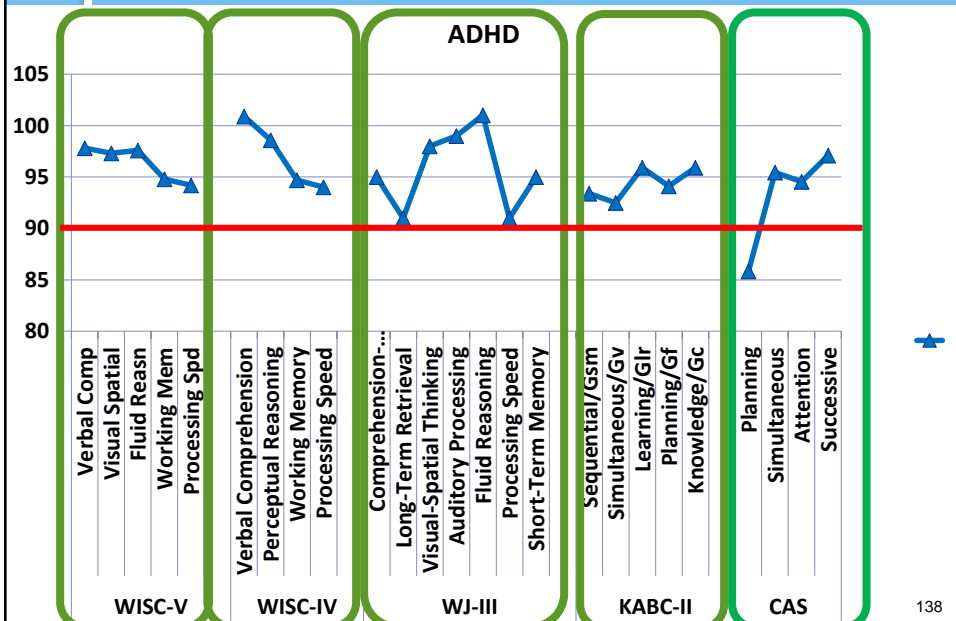
Because ability tests play such an important role in the diagnostic process, it is crucial to understand the sensitivity each test may have to any unique characteristics of those with an SLD or attention deficit. Clinicians need to know if an adolescent or adult has a specific deficit in ability that is related to a specific academic learning problem. There has been considerable research on, for example, Wechsler subtest profile analysis, and most researchers conclude that no profile has diagnostic utility for individuals with SLD or ADHD (Kavale & Forness, 1995). The failure of subtest profiles has led some to argue (e.g., Naglieri, 1999) that scale, rather than subtest, variability should

1. We need to know if intelligence tests yield distinctive profiles

2. Subtest profile analysis is UNSUPPORTED so use scale profiles instead

LEARNING & the BRAIN®

## Profiles for students with ADHD



138

## Canivez & Gaboury (2010)

- “the present study demonstrated the potential of the CAS to correctly identify students who demonstrated behaviors consistent with ADHD diagnosis.”  
glcanivez@eiu.edu

### Cognitive Assessment System Construct and Diagnostic Utility in Assessing ADHD

Gary L. Canivez  
Eastern Illinois University

Allison R. Gaboury  
Puyallup School District, Puyallup, WA

Paper presented at the 2010 Annual Convention of the  
American Psychological Association, San Diego, CA

Correspondence concerning this paper should be addressed to Gary L. Canivez, Ph.D., Department of Psychology, Eastern Illinois University, 600 Lincoln Avenue, Charleston, IL 61920-3099. Dr. Canivez can also be contacted via E-mail at glcanivez@eiu.edu or the World Wide Web at <<http://www.eiu.edu/~glcanivez>>. This handout is based on a manuscript presently submitted for publication so please do not reference without permission.

The Das-Naglieri Cognitive Assessment System (CAS; Naglieri & Das, 1997) is a test of cognitive abilities or intelligence based on the Planning, Attention, Simultaneous, and Successive Theory (PASS; Das, Naglieri, & Kirby, 1994). Studies of CAS performance by children with attention deficit hyperactivity disorder (ADHD) typically show lowest performance on Planning, deficits in Attention, but normal Simultaneous and Successive processing (Crowdell, 2002; Naglieri & Das, 1997; Naglieri, Goldstein, Jensen, & Schwach, 2003; Naglieri, Salter, & Edwards, 2004; Paulino, 1999; Penning, 2002; Van Luit, Kruenberg, & Naglieri, 2003). Such distinct group difference studies are important for validity and are necessary but not sufficient for establishing diagnostic utility of a test. The present study examined both distinct group differences and diagnostic utility of the CAS related to ADHD and found support for both.

The Das-Naglieri Cognitive Assessment System (CAS; Naglieri & Das, 1997) is a test of cognitive abilities or intelligence based on the Planning, Attention, Simultaneous, and Successive Theory (PASS; Das, Naglieri, & Kirby, 1994) which itself is based on Luria's Functional System of neuropsychology (Luria, 1966; Luria, 1973). PASS theory (Das, Naglieri, & Kirby, 1994; Naglieri & Das, 1997) proposes that children with attention deficit hyperactivity disorder (ADHD) would, as Barkley (2003, 2006) suggests, be more impulsive and less reflective in their cognitive processing, which in turn would impact planning processing. Attentional difficulties would affect attention processing. Studies of CAS performance of children with ADHD typically show lowest performance on Planning with deficits in Attention but normal Simultaneous and Successive processing (Crowdell, 2002; Naglieri & Das, 1997; Naglieri, Goldstein, Jensen, & Schwach, 2003; Naglieri, Salter, & Edwards, 2004; Paulino, 1999; Penning, 2002; Van Luit, Kruenberg, & Naglieri, 2003). While these group differences studies provide support for the construct validity of the CAS via distinct group differences, such support is inadequate for determining the utility of the CAS in individual diagnostic decision-making (McMillen-Sawyer & Williams, 2005). Distinct

Specificity = .85, Negative Predictive Power = .98). While a number of CAS studies regarding students with ADHD have examined distinct group differences and found support (Crowdell, 2002; Naglieri & Das, 1997; Naglieri, Goldstein, Jensen, & Schwach, 2003; Naglieri, Salter, & Edwards, 2004; Paulino, 1999; Penning, 2002; Van Luit, Kruenberg, & Naglieri, 2003), to date no studies have been conducted on the diagnostic utility of the CAS in correctly identifying individual children with ADHD from those without ADHD or from those with other disruptive behavior disorders. The present study examined the construct validity of the CAS by examining distinct group differences and the diagnostic utility of CAS in correctly differentiating individuals with ADHD symptoms from those within a normal control group.

#### Method

##### Participants

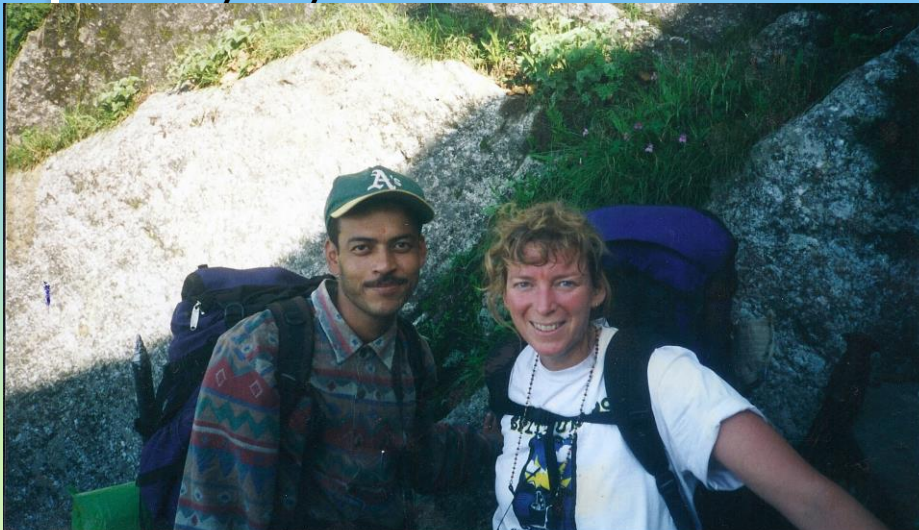
Informed parental consent was obtained for a final sample of 40 students from elementary schools in suburban Pierce County, Washington, ranging from kindergarten to second grade. Groups consisted of children meeting diagnostic criteria for ADHD ( $n = 20$ ) and a group of children who were randomly selected and matched (to the extent possible) on key

LEARNING & the BRAIN®

conclusions

139

The only way to climb a mountain ...



Slowly, slowly, easy, easy...

LEARNING & the BRAIN®

conclusions

## Three Categories for Each Day

- Summarize the Big Idea and WHY it's important.
- List 3-5 facts you want to remember
- Note at least three take away strategies or ideas you plan to use in your work with students.



LEARNING & *the* BRAIN®

conclusions

141

## Your Final Project for This Week

- Using the notes from your foldables, and working with your core group, come up with a 3 minute presentation that summarizes the big ideas of what you have learned in this Summer Institute.
  - Song/Rap/Poem
  - Skit or Video
  - Art Project
  - Chart/Graph
  - Your Choice



LEARNING & *the* BRAIN®

conclusions

142



## Your Ticket out the door!

140704130208	Plus: What's working for you? Minus: What could we improve? Question: Something you still wonder about or want to know. (Based on stated objectives for the Institute).	140704130208
--------------	--	--------------

## Pay Close Attention



LEARNING & the BRAIN®

conclusions

# efintheclassroom.net

## Sustained Attention Lesson

Phrase of the week: Where is your focus?

Video: <http://www.youtube.com/watch?v=jKCT-simmBo&noredirect=1>

Q1: Why do you think you were tricked by this video?

Q2: How do you decide what to pay attention to, and what not to, in this class?

Q3: What are your biggest distractions in class?  
What will you have the hardest time ignoring?

Hand out Learning Logs:

Students go to SA section and create a list they (or the class as a whole) will try to ignore this week.

isions