Better Data
Better Communication

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You can find this presentation at

http://www.strose.edu/academics/schoolofeducation/school_psychology/article5560

Google – **Shanock Saint Rose**

What are we doing?

After you've done a thing the same way for two years, look it over carefully. After five years, look at it with suspicion. And after ten years, throw it away and start all over.

(Perlman, 1958)

What are we doing?

THE PRACTICE OF TODAY IS THE MALPRACTICE OF TOMORROW

(Reynolds, 2009)

Frequent Parent Quotes

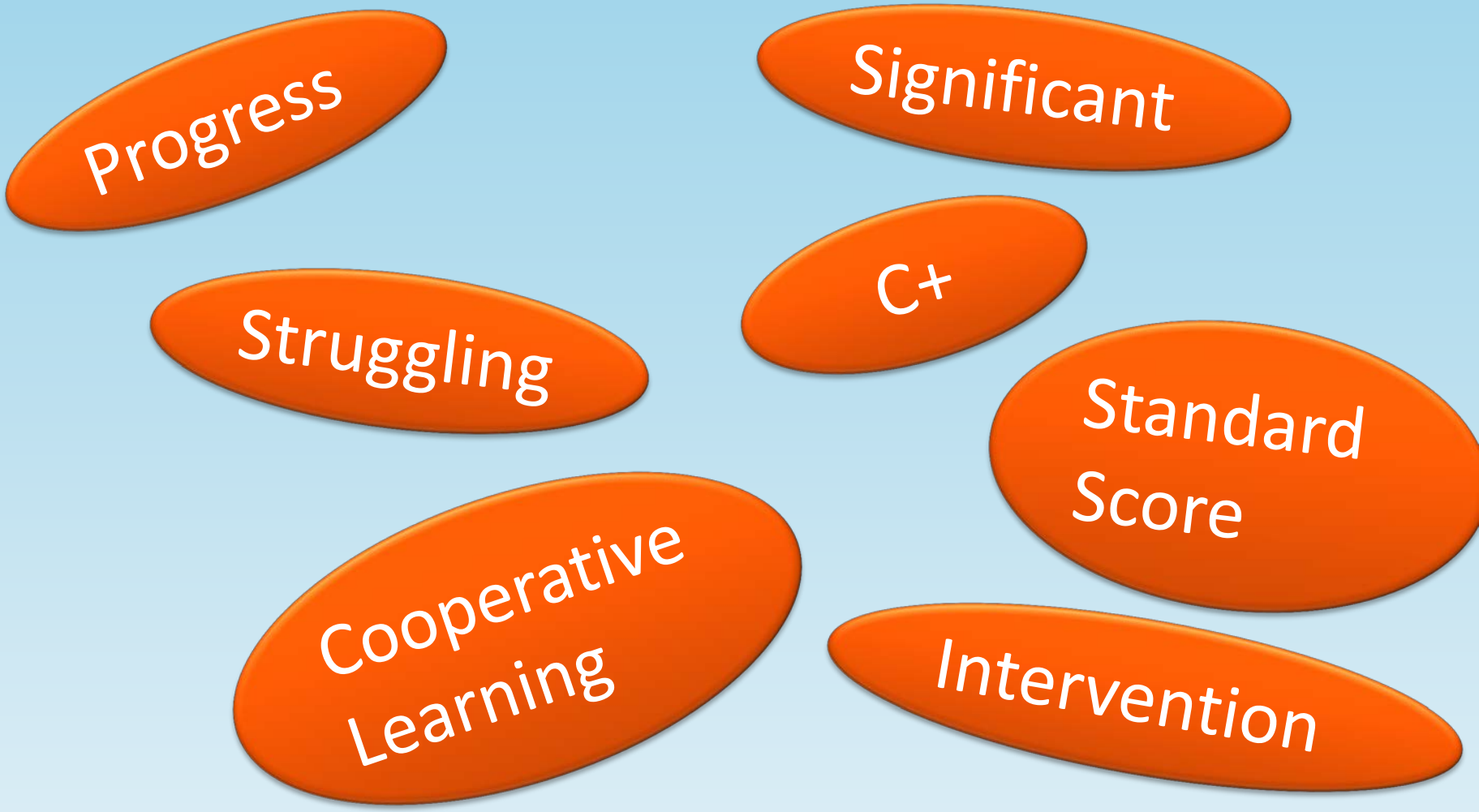
They keep telling me my child is making progress, but I am not sure what that is.

If they tell me what a great kid my kid is I am gonna scream

They keep asking me to do more at home, but I don't know what to do. I am not a teacher!

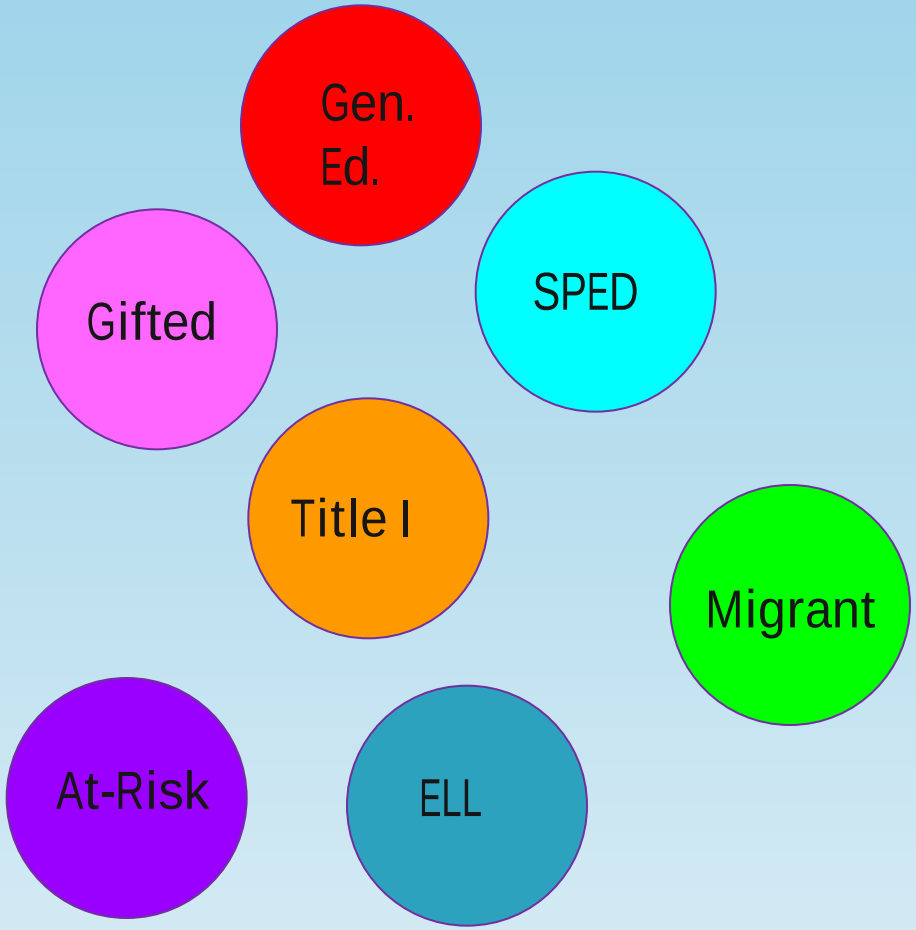
Year after year I hear the same thing, but he still can't read! Why isn't it fixed already!

Are we speaking the same language??



The American Educational System Structure

- Turfdom
- Conflicting Programs
- Lack of coordination
- bureaucracy for sake of bureaucracy
- Student grouping not instructionally based
- Rigidity, rules
- Redundancy



I love me some IEP meetings!

- Big fan of fanning!
- IEPs are so Individualized
- Go Team!
- Parent Friendly
- Data based decisions, all day every day

IEP

is

supposed

to stand

for

But
it has
become
GEP

Should be

I

Expect

Progress

IEP Language

ACADEMIC ACHIEVEMENT, FUNCTIONAL PERFORMANCE AND LEARNING CHARACTERISTICS

LEVELS OF KNOWLEDGE AND DEVELOPMENT IN SUBJECT AND SKILL AREAS INCLUDING ACTIVITIES OF DAILY LIVING, LEVEL OF INTELLECTUAL FUNCTIONING, ADAPTIVE BEHAVIOR, EXPECTED RATE OF PROGRESS IN ACQUIRING SKILLS AND INFORMATION, AND LEARNING STYLE:

Other:

- FORMAL EVALUATIONS WILL BE CONDUCTED IN THE RELEVANT AREAS AT THE TIME OF THE NEXT ANNUAL REVIEW.

Overall Academic Performance:

- Ben has made steady progress in academics and social skills this year. Ben enjoys school and is always willing to do his best. He is able to independently navigate throughout the school and is now able to run errands independently. He follows his class schedule and is not upset when changes occur. He still needs to work on checking the time to verify when the next subject starts.

Reading- Ben has made strong progress in reading his year. Ben is able to decode Guided Reading level M/N texts with good accuracy. He is starting to sound out words with teacher prompts, but it is very challenging for him. Ben struggles to add endings onto base words and read them correctly. Ben is able to go back in the text to find explicit answers. He is currently working on saying the answer in his own words and not repeating the exact written text. He needs a lot of support to answer implicit questions (i.e. why, how the author helps him learn, cause/effect). Ben benefits from multiple readings of the same text and using drama to perform texts. Ben is able to use the glossary independently! He can find a caption. Ben needs support to answer sequencing, setting, and compare/contrast questions.

Random Goal setting

ANNUAL GOAL WHAT THE STUDENT WILL BE EXPECTED TO ACHIEVE BY THE END OF THE YEAR IN WHICH THE IEP IS IN EFFECT	CRITERIA MEASURE TO DETERMINE IF GOAL HAS BEEN ACHIEVED	METHOD HOW PROGRESS WILL BE MEASURED	SCHEDULE WHEN PROGRESS WILL BE MEASURED
READING 1. When presented with words from reading narratives or specific informational text from Ben's content area subjects at his instructional reading level, Ben will apply phonic skills and word analysis skills to correctly decode the words.	90% success over 2 weeks	Classroom and standardized tests	Monthly
2. When presented with narrative and/or information text at his instructional reading level, Ben will read and comprehend the text by answering explicit and basic implicit questions with or without going back in the text to find the answers.	75% success over 4 weeks	Classroom and standardized tests	Monthly

All data is data,
but not all data is data

Telling the truer story of academic and behavior progress

Data that confuse

- Classroom Grades
- Norm referenced/grade equivalents
- Writing samples
- Feelings
- Statewide Tests

AGE Equivalent/Grade Equivalent

- UGH UGH UGH!!!
- They are deceptively simple and distressingly popular.
- Easily misinterpreted

Age/Grade equivalent

- What it really means
  - The average grade at which children in a norming group earned the same Raw Score that the particular child earned.
- Does NOT mean the reading level the child is on.
  - 15 y.o.
  - GIA of 85
  - Broad Reading SS of 80
  - Grade Equivalent of 3.5

Grade equivalent

- Child has a GE of 10th grade
- 68% confidence interval – 8th to 12th grade
- 95% confidence interval – 6th to 14th grade

Standard score of 100 - behind or ahead

- If norm group is in 1 year intervals

- SS of 100 = GE of 5.5

Month tested	Grade level	Standard Score	Grade Equivalent Score	Interpretation
September	5.0	100	5.5	Ahead of the game
December	5.5	100	5.5	With the herd
June	5.9	100	5.5	Regressed

13.5 year old
8th grader

Raw	Weighted	SS	GE
34	68	100	7.7
35	70	102	10.0

Normative academic assessment

(using grade norms)

oh what a day makes

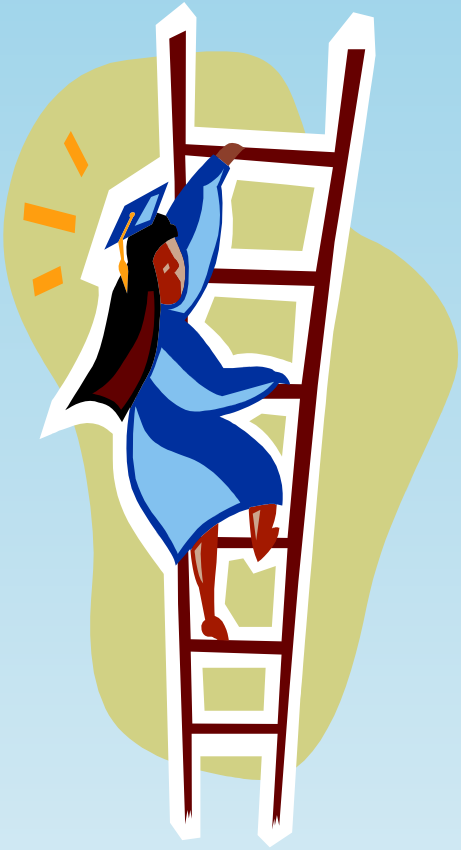
GRADE TWO		
	2/28	3/1
Raw Score	Standard Score	Standard Score
29	75	
29		71

GRADE THREEE		
	2/28	3/1
Raw Score	Standard Score	Standard Score
35		76
35	79	

GAINS	
2/28	3/1
1 point	
	8 points

Other data issues

- Will data link to outcome measures – ELA, Regents exam, etc.
- Collecting data in order to look like data is being collected
- Score versus performance – what happened
- The ORF beat up the Standard Score with a Stanine
- A higher number or letter does not necessarily mean good progress.



SPELL “TALK”

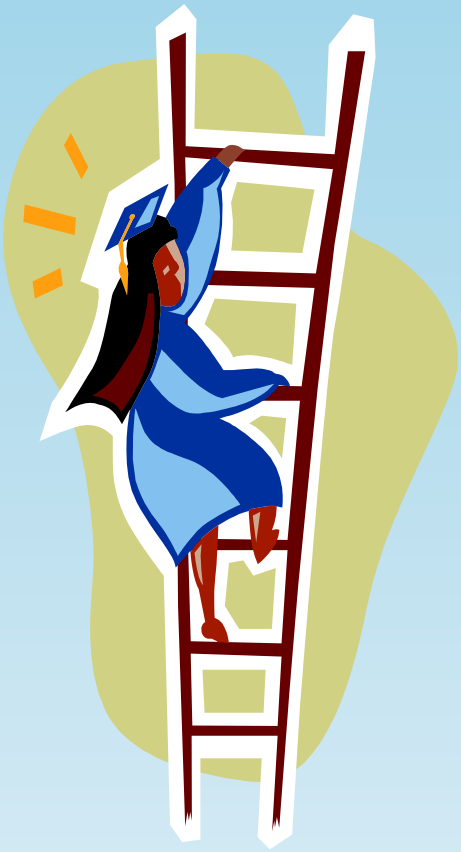
mgah

tuc

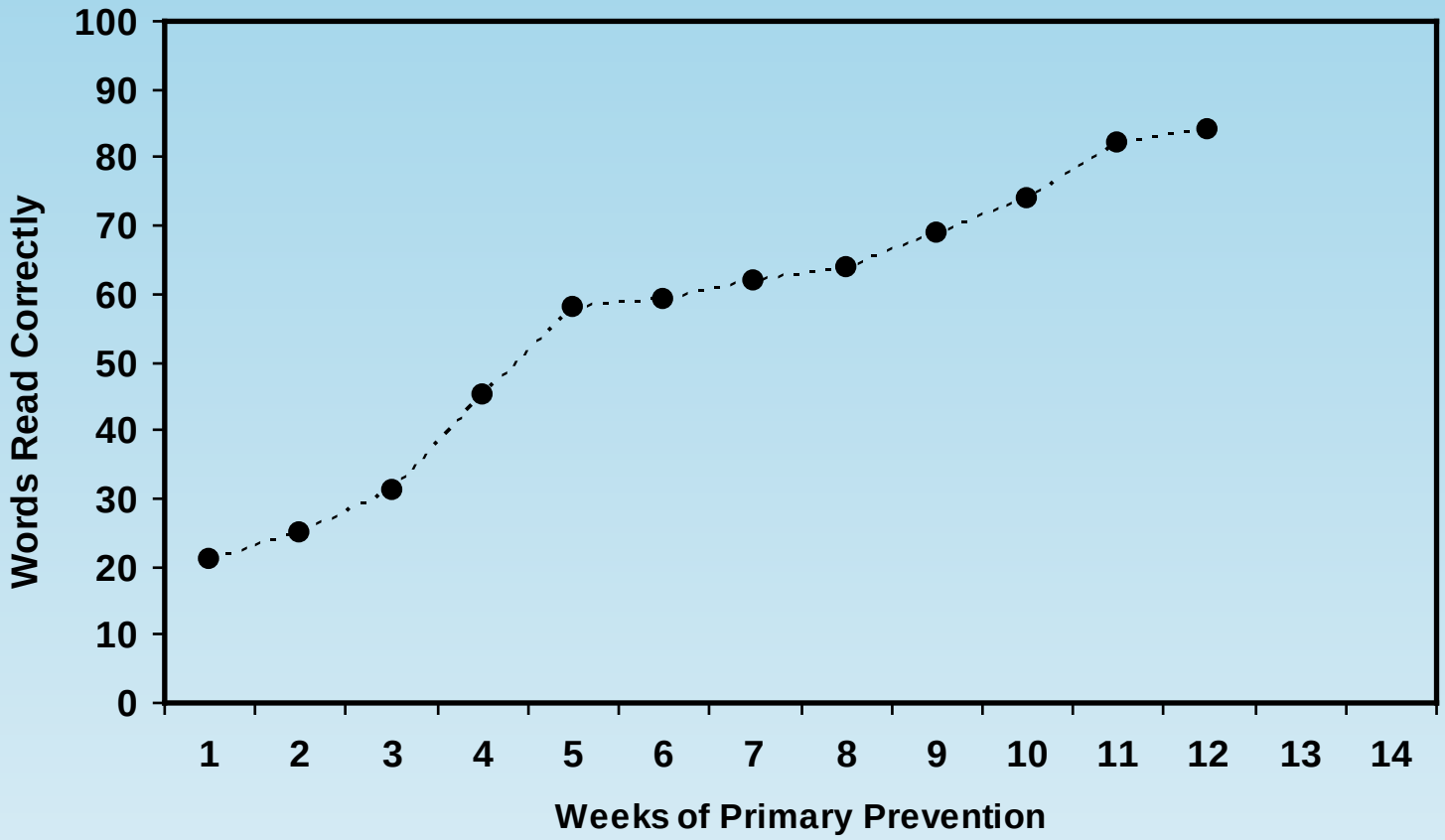
touk

tawk

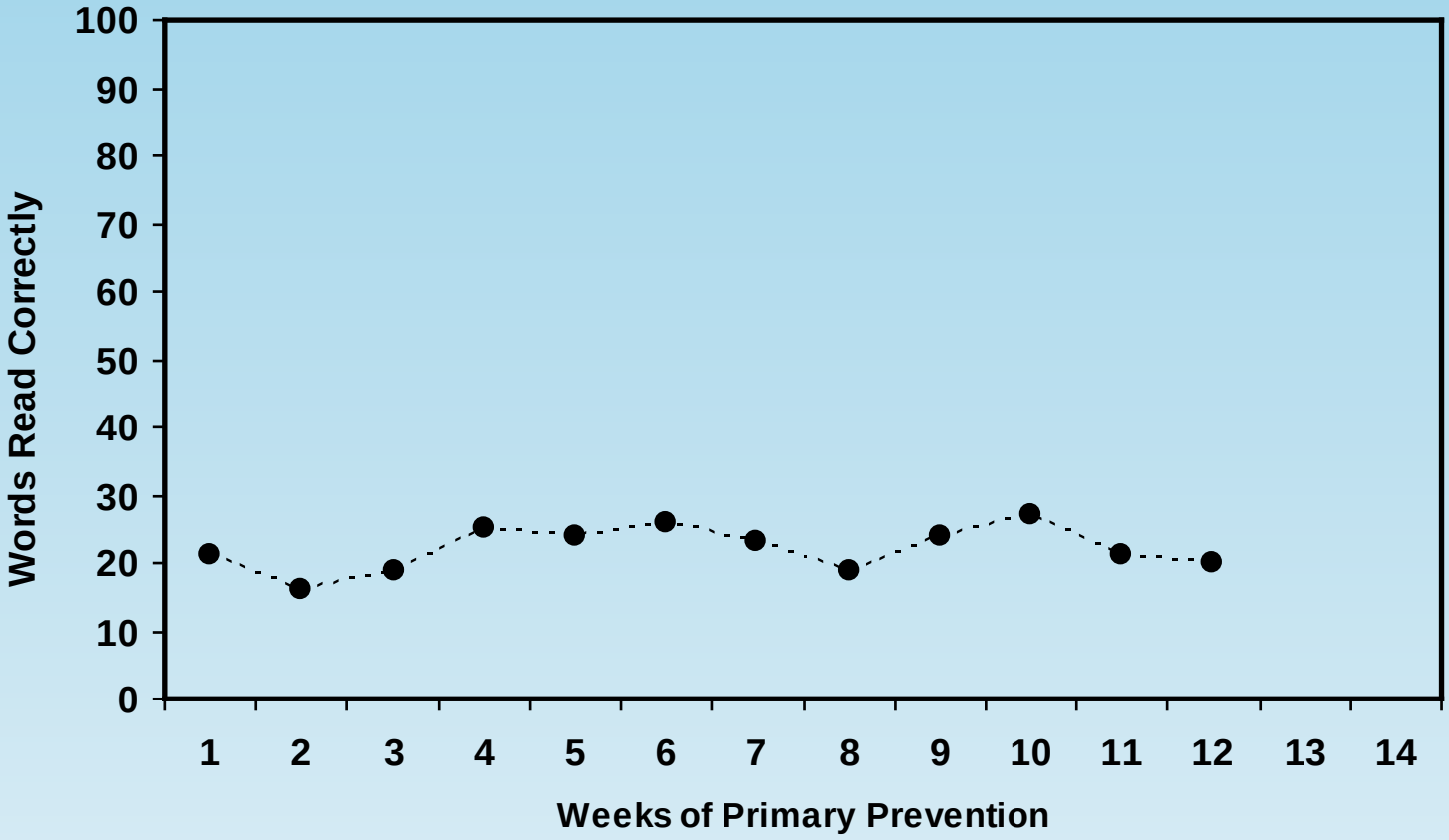
talk



Graphing CBM Scores



Graphing CBM Scores



Two kids, same intervention

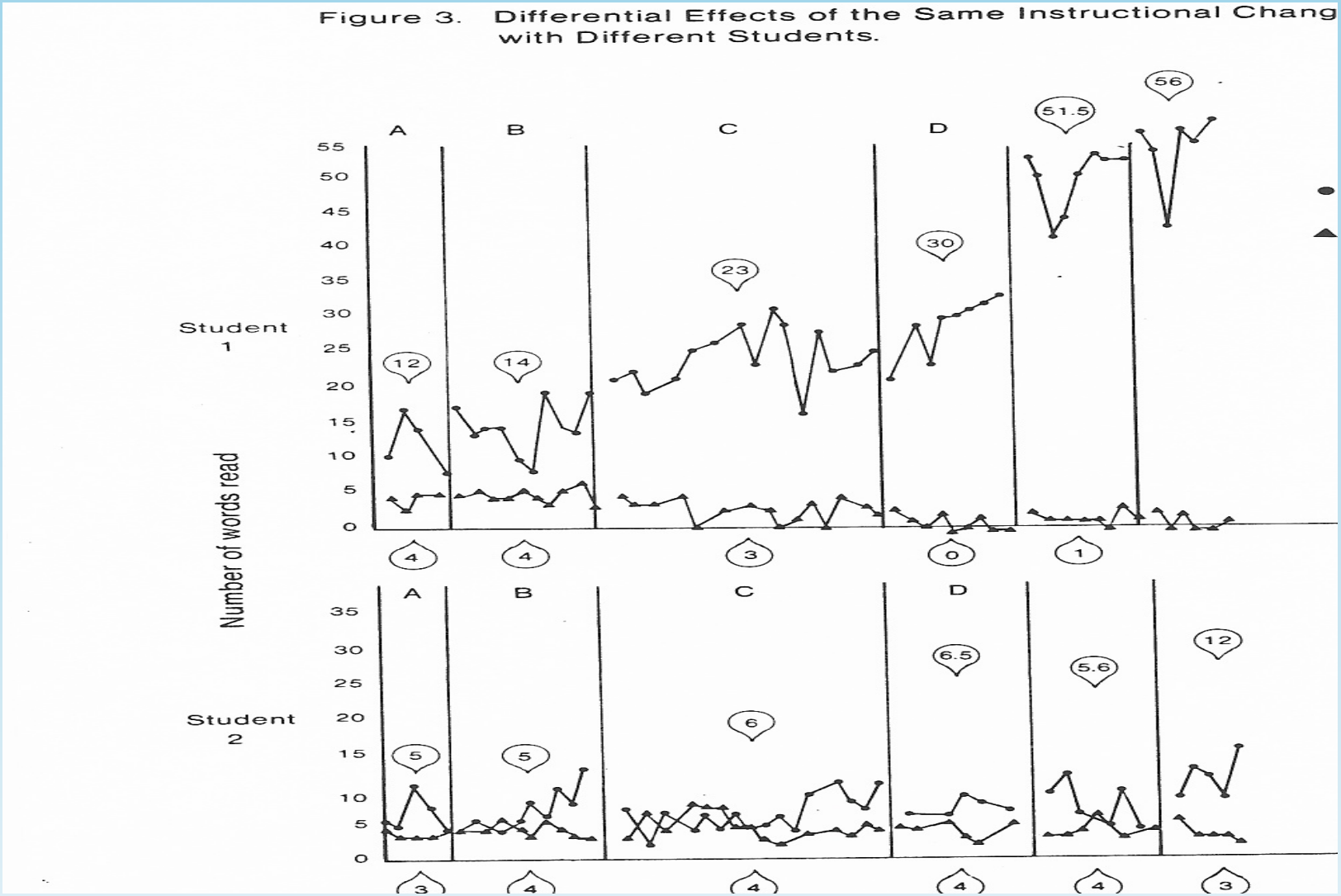


Table 1: Sample Estimates of 'Typical' CBM Instructional Reading Levels By Grade

Grade	*Shapiro (1996)* CRW Per Min	*Shapiro (1996)* Reading Errors	Milwaukee Public Schools (Winter 2000-2001 Local Norms) CRW Per Min for Students in 25th-75th Percentile
1.....	40-60	Fewer than 5	22-64
2.....	40-60	Fewer than 5	36-78
3.....	70-100	Fewer than 7	47-88
4.....	70-100	Fewer than 7	60-104
5.....	70-100	Fewer than 7	77-121
6.....	70-100	Fewer than 7	95-146

Table 2: Predictions for Rates of Reading Growth by Grade
(Fuchs, Fuchs, Hamlett, Walz, & Germann, 1993)
Increase in Correctly Read Words Per Minute for Each Instructional Week

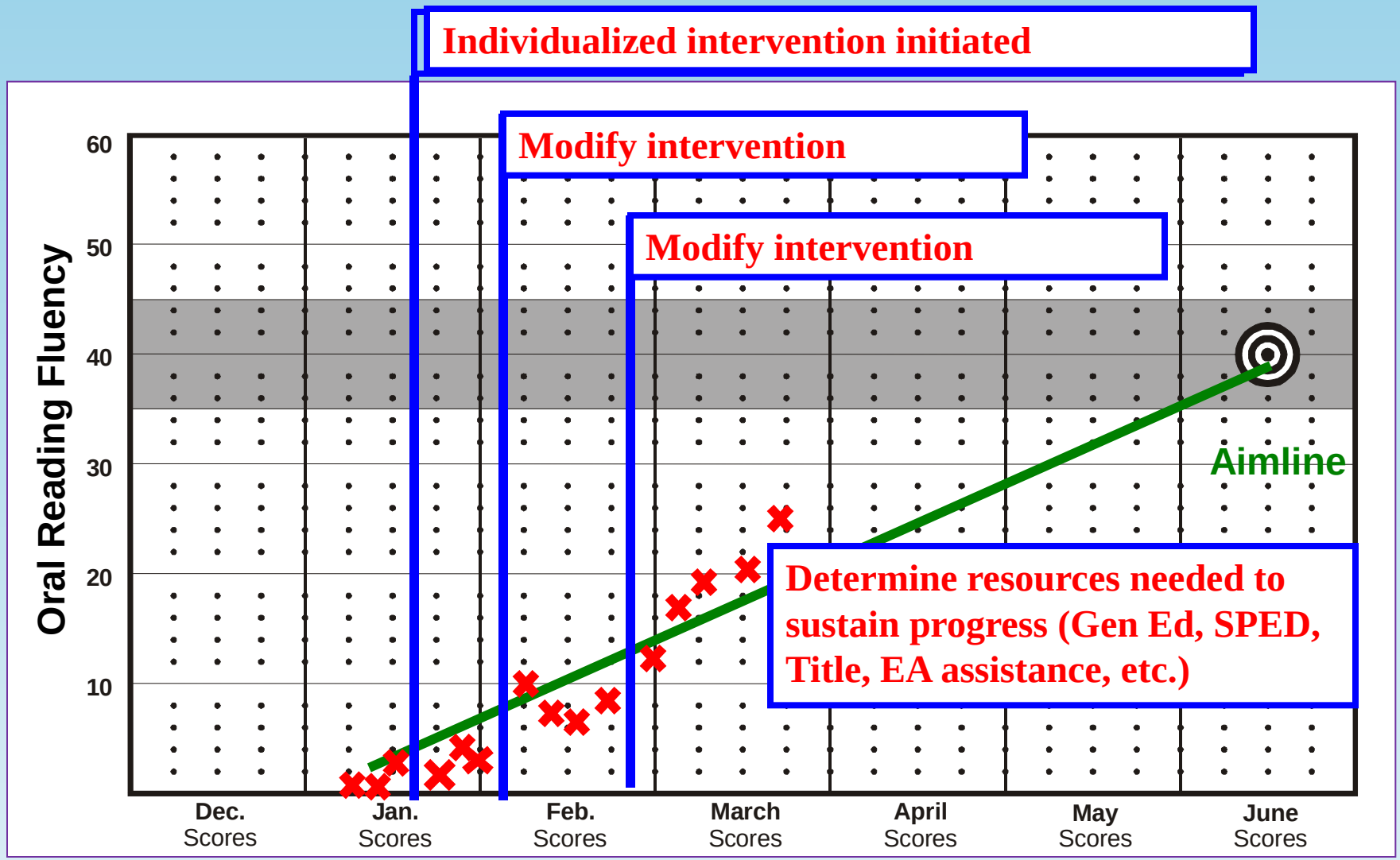
Grade Level	*Realistic Weekly Goal*	*Ambitious Weekly Goal*
Grade 1	2.0	3.0
Grade 2	1.5	2.0
Grade 3	1.0	1.5
Grade 4	0.85	1.1
Grade 5	0.5	0.8
Grade 6	0.3	0.65

Benchmark Goals ORF
Second Grade

Beginning of Year	Middle of Year	End of Year
<26 At Risk	<52 At Risk	<70 At Risk
26-44 Some Risk	52-68 Some Risk	70-90 Some Risk
>44 Low Risk	>68 Low Risk	>90 Low Risk

Assessing Response to Intervention

3 point decision rule



Goals

- Have to set clear, measureable goals
- Fancy percentages don't work
- Need a baseline

Jacob's Reading Goal

By January of 3rd grade, given passages from 3rd grade reading curriculum material, Jacob will read 70 words correct in one minute with five or fewer errors

Example of Defining the Problem

- **Instead of:**

  Joey has a hard time writing

- **A better definition:**

  When asked to write a story, Joey is able to write two incomplete sentences with approximately 50% of the words spelled correctly. The average student in the class is able to write two paragraphs with 80% of the sentences having correct grammar and 90% of the words spelled right.

Example of Defining the Problem

- **Instead of:**

  Serena struggles with reading

- **A better definition:**

  When given a reading passage from her social studies book, Serena reads 45 wpm while her average peer reads 70wpm. She struggles to read vocabulary words related to the social studies content.

Example of Defining the Problem

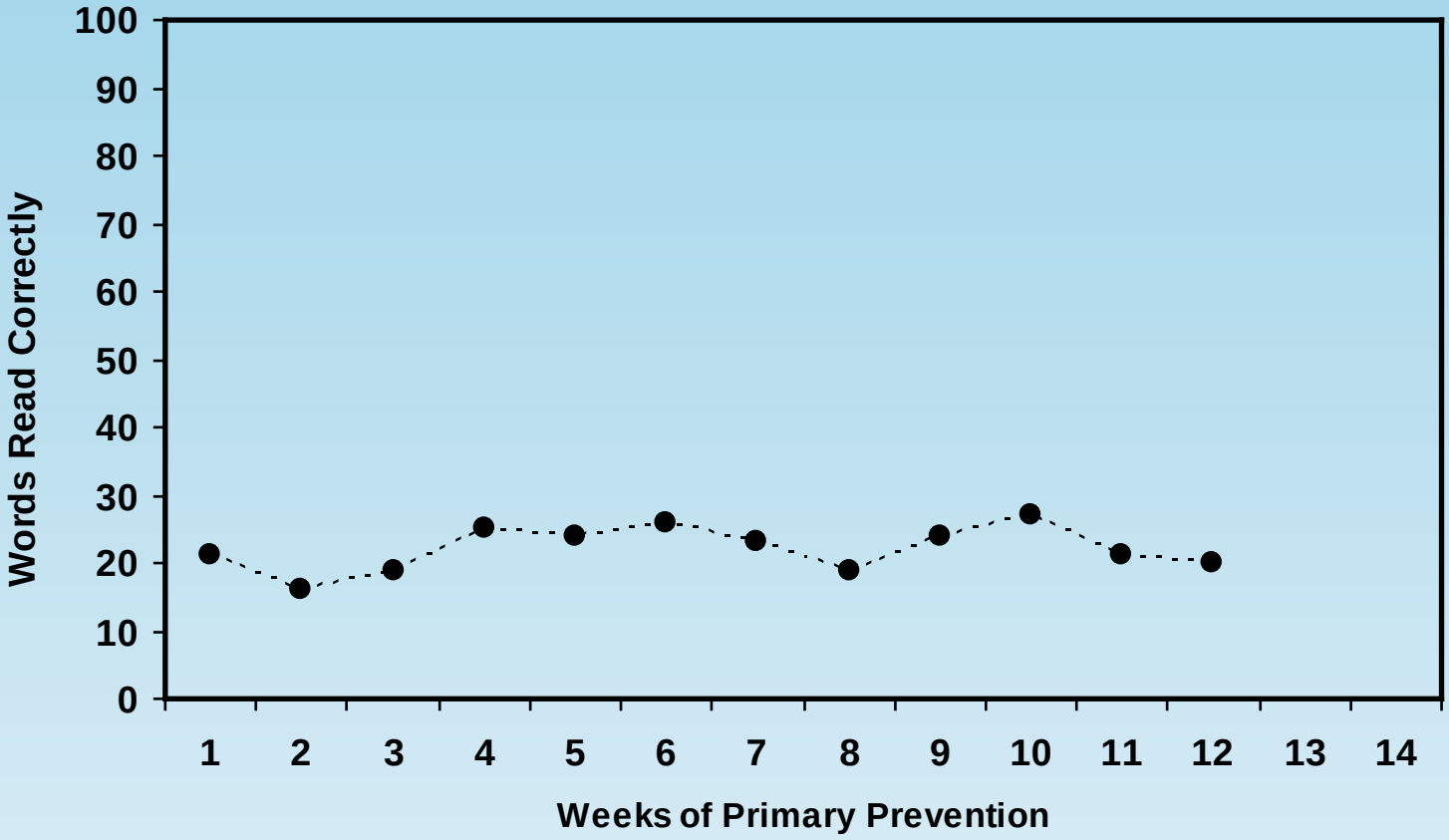
- **Instead of:**

  Max is always out of his seat

- **A better definition:**

  Max leaves his desk without permission an average of six times per hour during math and reading – only an average of two times an hour during science and social studies. His peers average less than one time per hour.

But WHY


Words Read Correctly
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Weeks of Primary Prevention

These discoveries….are expected to lead to new treatments with drugs already approved ….and new ideas for more precise treatments aimed at genetic aberrations that now have no known treatment.

The New York Times

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Search Health

Study Divides Breast Cancer Into Four Distinct Types

From here, doctors and researchers are hoping clinical trials and dozens of separate drug studies will help to develop new breakthroughs in treatment from the findings.


Login with Facebook to see what your friends are reading
Enable Social Reading
Breast Cancer Breakthrough Explains Differences In Cancer Among Races, Possible New
ALERTS:
SIGN UP
chronic conditions, chronic conditions, Breast Cancer
Black Women, B
Dna, Black Voices Life, Dna, Black Voices
News
In the fight a
triple-negativ
and the Feins
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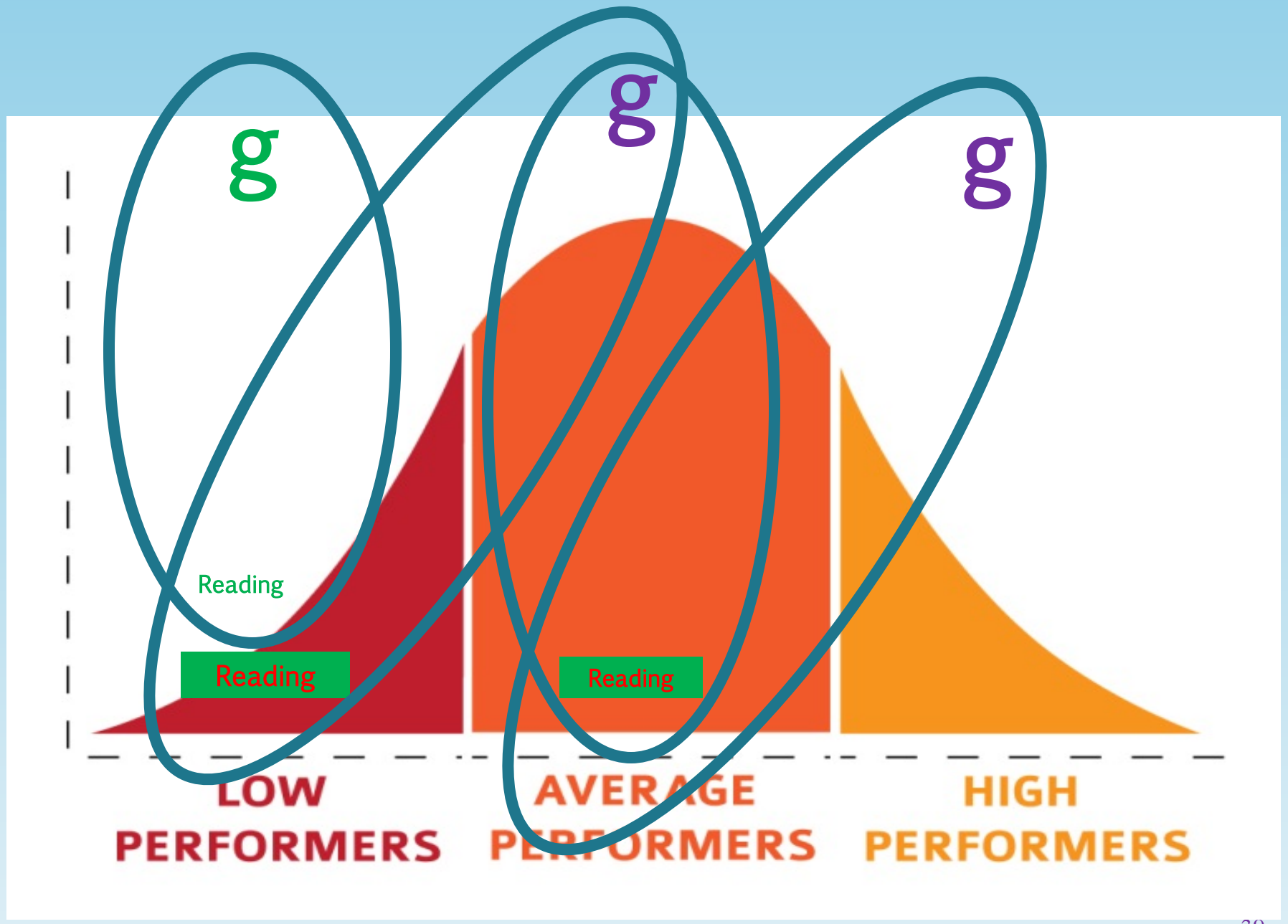
What they fo
helping them to determine
"These findings prove the importance of personalizing cancer drug treatment so that it targets the genetic make up of a particular tumour rather than presuming one therapy can treat multiple, similar-looking tumours," Steven Jones, co-author of the study, told the Canadian Press.
Shapira drew a similar conclusion from her study. "The striking difference in the patterns of microRNA expression between African American and Caucasian breast cancer patients may provide insight into answering why, when receiving similar treatments, outcomes are different between African Americans and Caucasians," she said.


g
g
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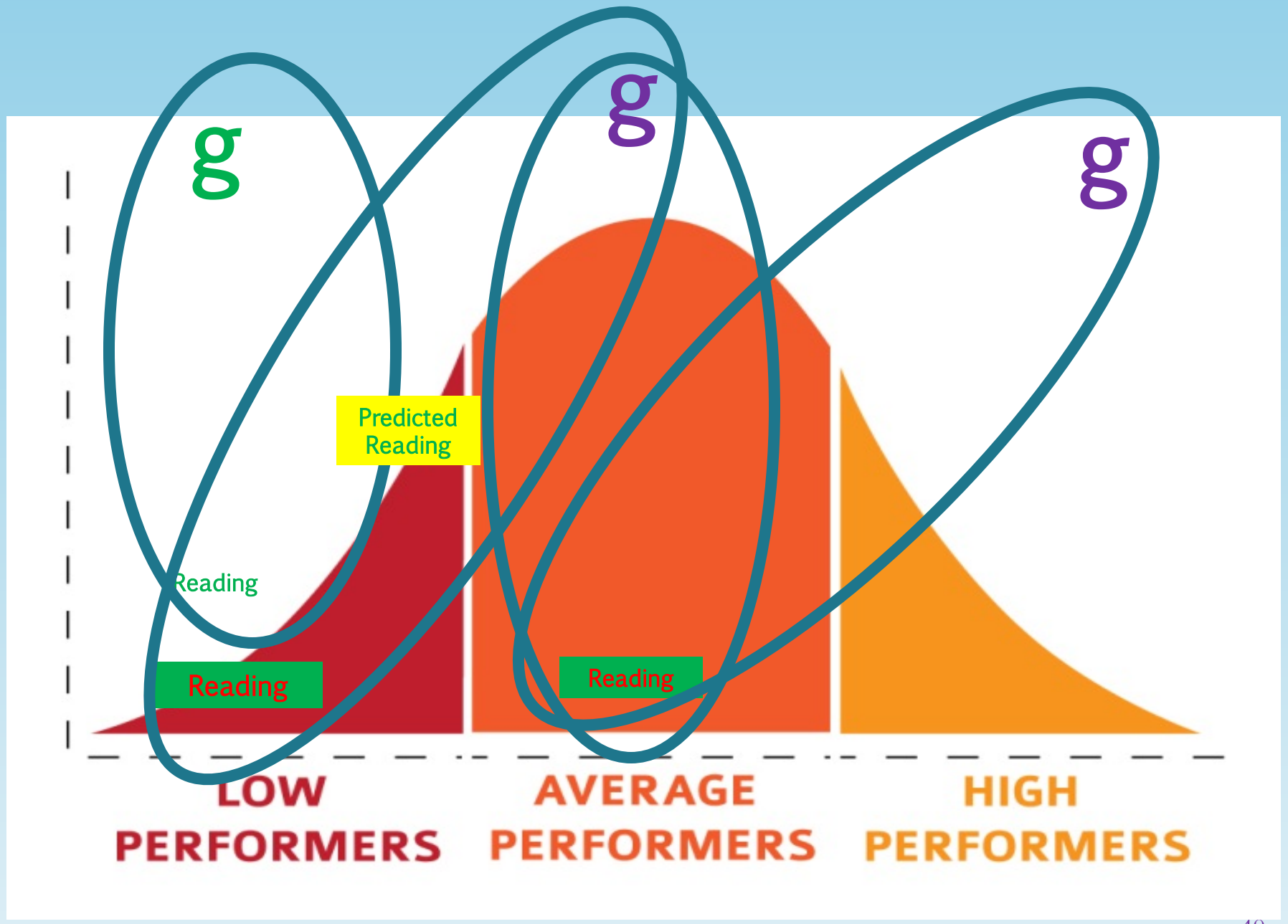
Reading
Reading
Reading
LOW
PERFORMERS
AVERAGE
PERFORMERS
HIGH
PERFORMERS


g
g
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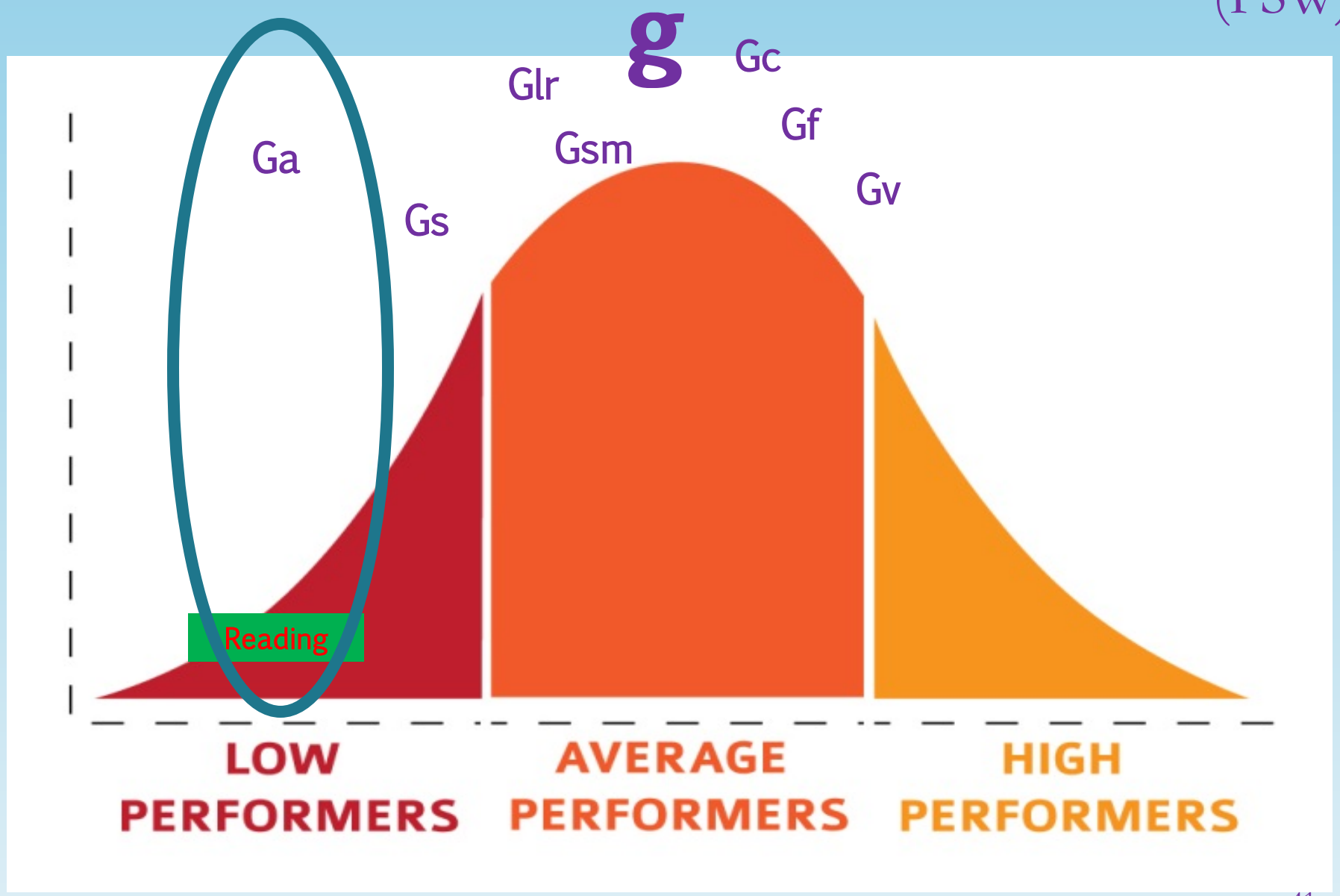
Predicted Reading
Reading
Reading
Reading
LOW PERFORMERS
AVERAGE PERFORMERS
HIGH PERFORMERS

PATTERN OF STRENGTHS AND WEAKNESSES (PSW)



It was unanimous

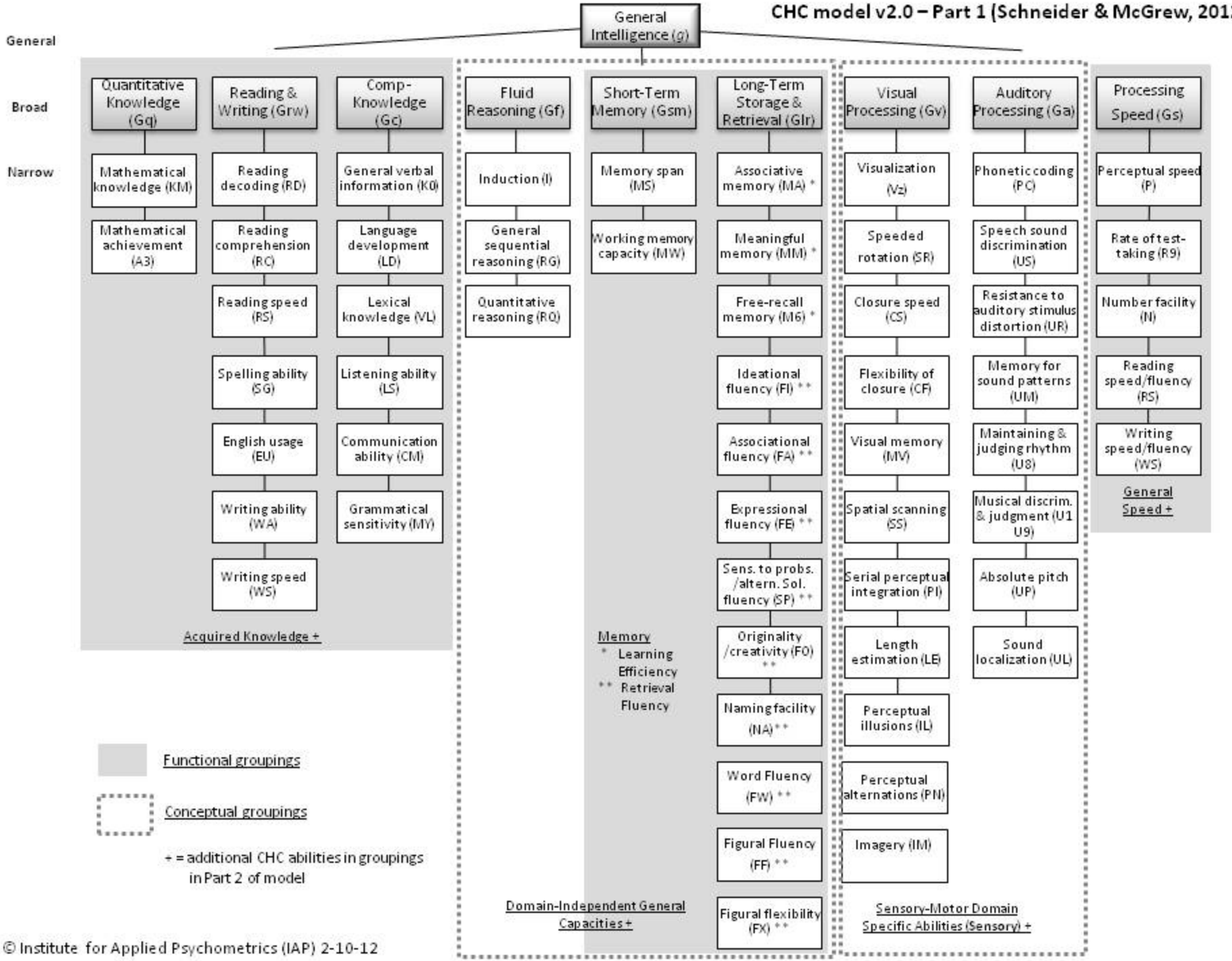
Not every student who struggles in school is disabled nor does every student who fails the state test due to learning problems has a SLD

SLD identification should NEVER be for the convenience of adults nor as the only way for a child to receive 'extra' help they need.

IQ – Not so smart

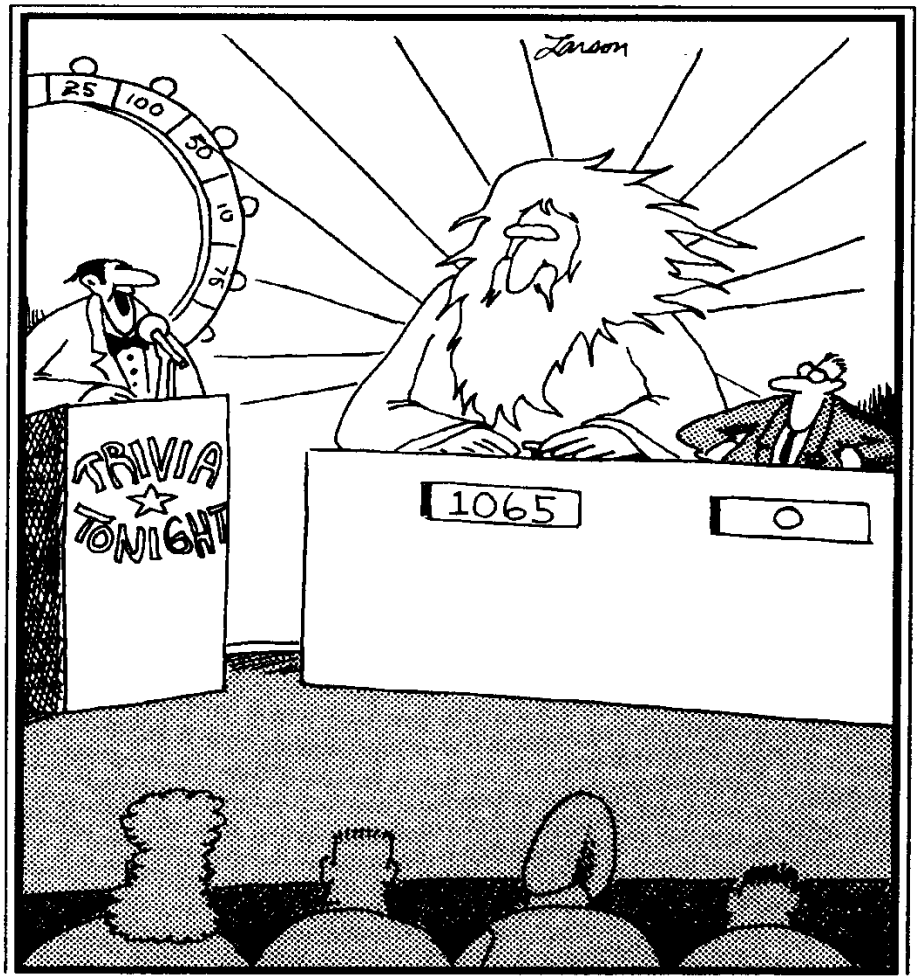
- Language impacts g, and g impacts language
- What is it made of?
- Does it mean anything in relation to intervention?
- IQ can no longer mean Wechsler FSIQ
- It's the parts that make the whole
- It's the parts that will identify the strengths and weaknesses that impact upon learning

CHC model v2.0 – Part 1 (Schneider & McGrew, 2012)



Gc

Comprehension-Knowledge



"Yes! That's right! The answer *is* 'Wisconsin!' Another 50 points for God, and ... uh-oh, looks like Norman, our current champion, hasn't even scored yet."

- The breadth and depth of knowledge of a culture
- The ability to communicate one's knowledge (especially verbally)
- The ability to reason using previously learned knowledge or procedures
- Mental filing cabinet
- "Jeopardy" players have waaaay too much Gc.
- Includes Listening Skills and Oral Communication.

Gf

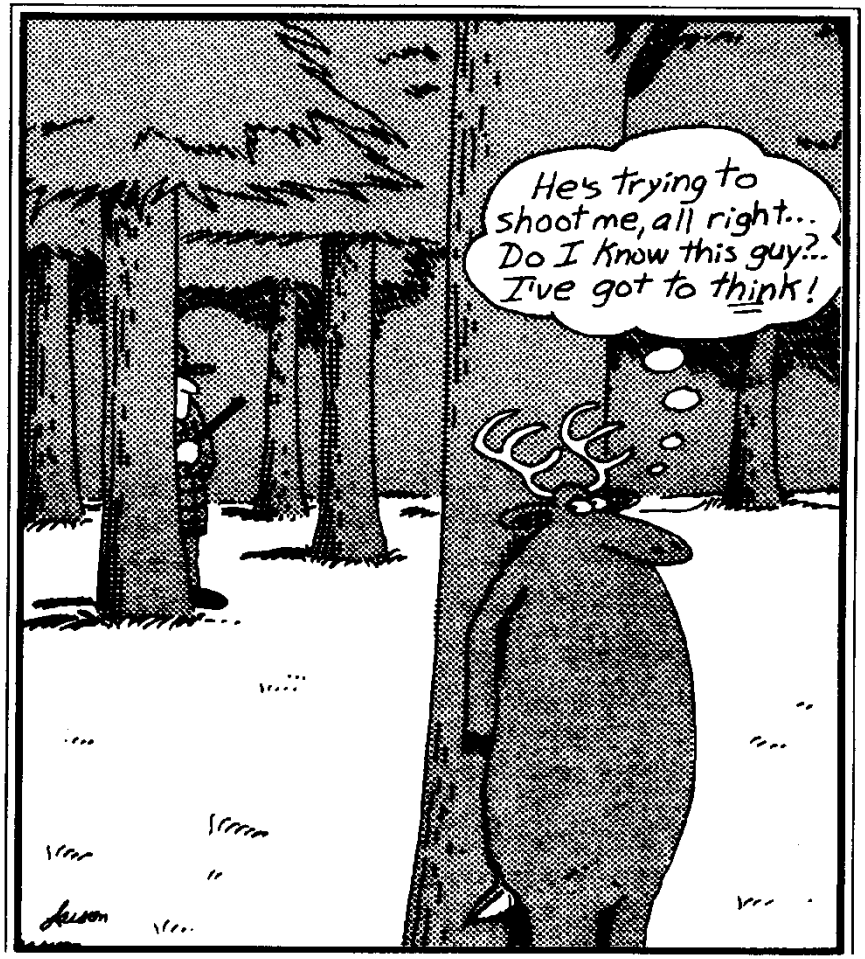
Fluid Reasoning

"Notice all the computations, theoretical scribblings, and lab equipment, Norm. . . . Yes, curiosity killed these cats."

- Novel reasoning and problem solving that depend minimally on learning and acculturation
- Ability to reason, form concepts, and solve problems that often include novel information or procedures
- Induction & deduction are hallmarks of *Gf*
- Impacts math reasoning, reading comprehension, higher level thinking
- The first few times you do Soduku, you are using your Fluid Reasoning. After you learn the trick, it becomes crystallized knowledge (Gc)

Glr

Long-term (Storage &) Retrieval



- Ability to store information and fluently retrieve it later
- Ability to retrieve from file cabinet
- Not to be confused with acquired stores of knowledge (*Gc*)
- There has to be an intervening event. Can mean retrieving information learned several seconds earlier.
- Not long term memory
- Includes Rapid Naming, Meaningful Memory, Associative memory
- All contestants on Jeopardy have good Gc, but those who are more effective at retrieving the info do better.

Gsm
Short-term Memory

- Ability to apprehend and hold information in immediate awareness and then use it within a few seconds
- 7 chunks of information (+ /– 3)
- Working Memory and Memory Span

- Working Memory is key in most academic areas.

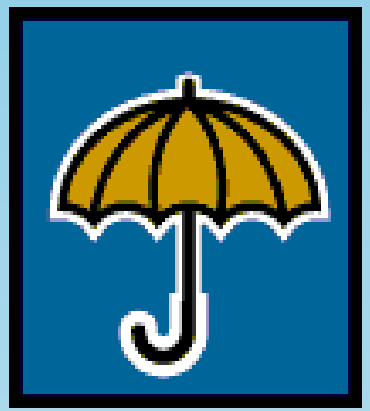
How many windows are in your apartment or home

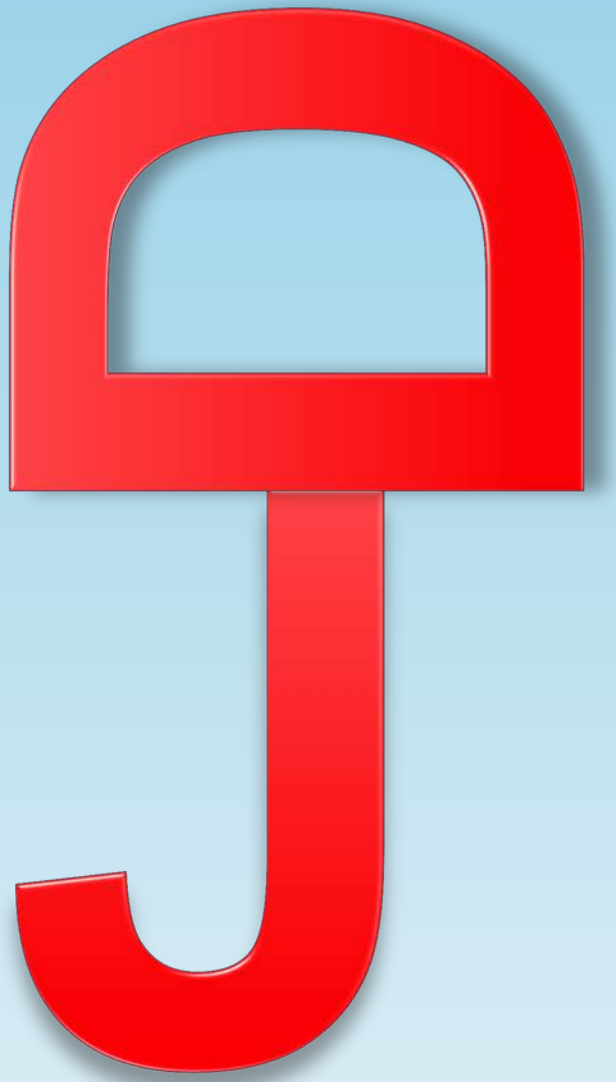
VSSP – visual image of house

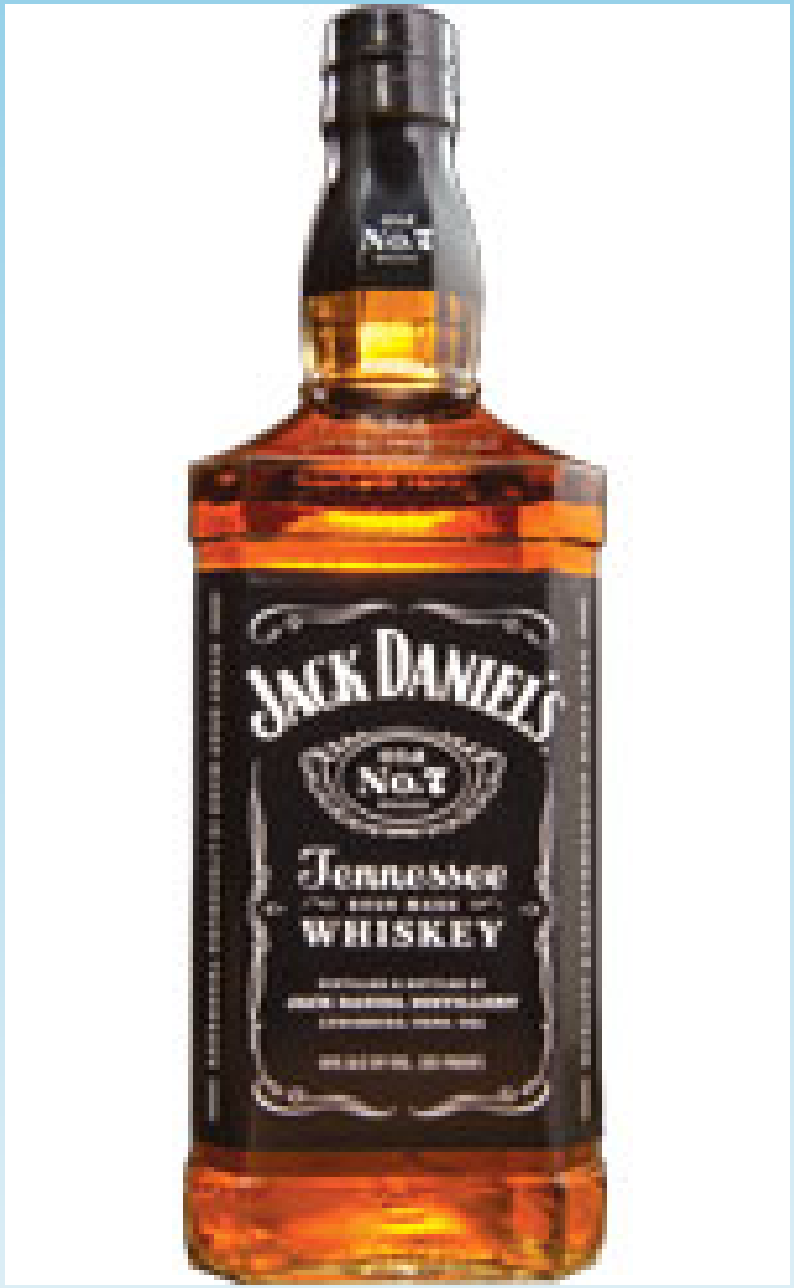
Phonological Loop – counted windows to yourself

VSSP exercise

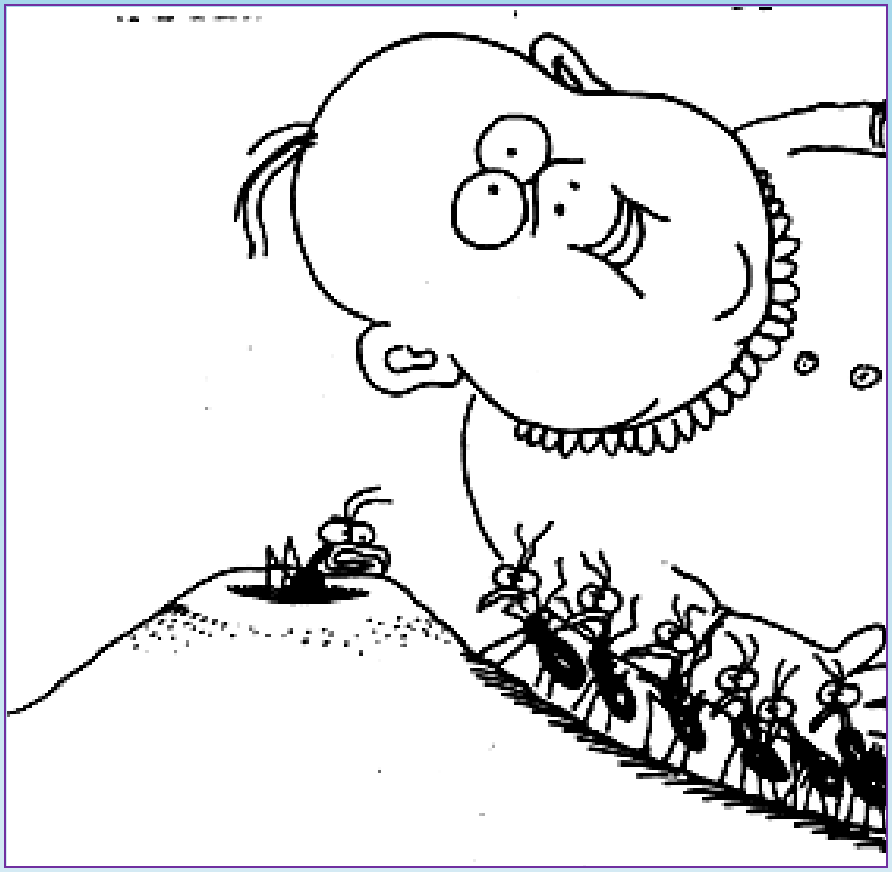
- First, form an image of the capital letter jay
- Now imagine a capital dee
- Rotate the dee ninety degrees to the left
- Place it on top of the jay
- What does it look like






JACK DANIEL'S
No.7
Tennessee
WHISKEY

Gv
Visual-Spatial Thinking

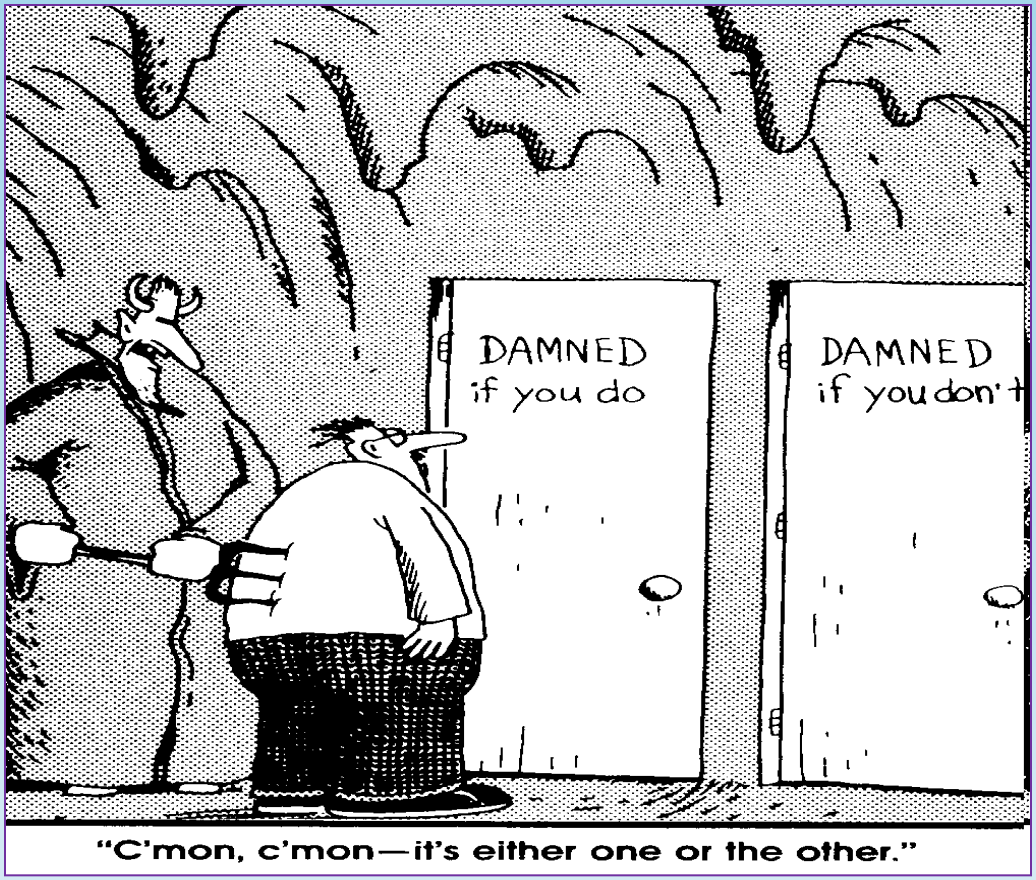


- Ability to perceive, analyze, synthesize and think with visual patterns
- Ability to store and recall visual representations
- Fluent thinking with stimuli that are visual in the "mind's eye"
- Not to be confused with a "visual learner" or how well does someone see. Can be visually impaired and still have good Gv

Ga
Auditory Processing

- Ability to analyze, synthesize, & discriminate auditory stimuli
- Ability to perceive and discriminate speech sounds that may be presented under distorted conditions
- Not to be confused with an "auditory learner" or how well someone hears. Can be hearing impaired and still have good Ga
- Includes Phonemic Awareness

Gs
Processing Speed



"C'mon, c'mon—it's either one or the other."

- Ability to perform automatic cognitive tasks, particularly when measured under pressure to maintain focused attention
- Attentive speediness
- Usually measured by tasks that require rapid cognitive processing but little thinking
- Card sorting, game of Perfection

Subtypes of Reading Disability (Fiefer)

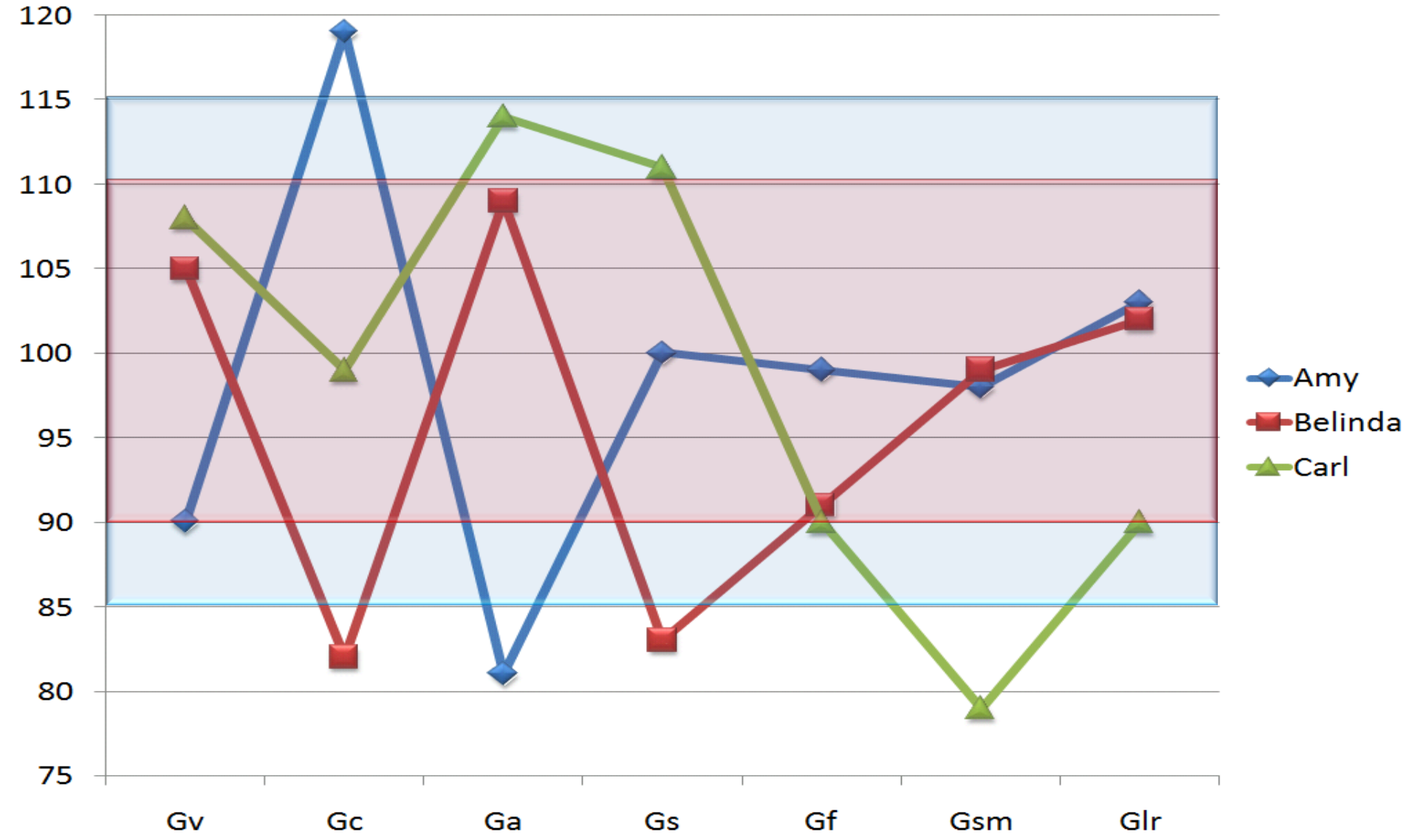
- **(1) Dysphonetic Dyslexia –** difficulty sounding out words in a phonological manner *(Ga-Phonetic Coding; Gsm-Memory Span, Working Memory)*

- **(2) Surface Dyslexia –** difficulty with the rapid and automatic recognition of words in print *(Glr-Naming Facility; Gv-Orthographic Processing; Gs-Perceptual Speed; Gc-Vocabulary Knowledge)*

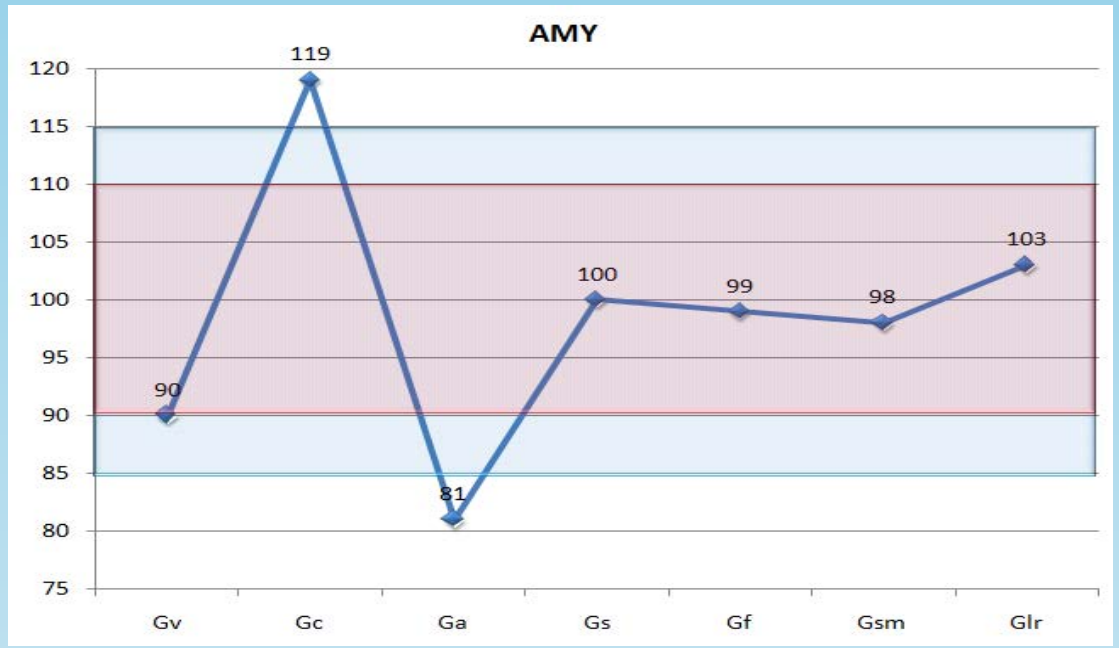
- **(3) Mixed Dyslexia –** multiple reading deficits characterized by impaired phonological and orthographic processing skills. It is probably the most severe form of dyslexia. *(Multiple CHC abilities or processes involved; attention and executive functioning)*

- **(4) Comprehension Deficits –** the mechanical side of reading is fine but difficulty persists deriving meaning from print *(Gf-Induction, General Sequential Reasoning; Gc- Language Development; attention and executive functioning)*

Different Cognitive Ability Profiles Suggest Different Interventions



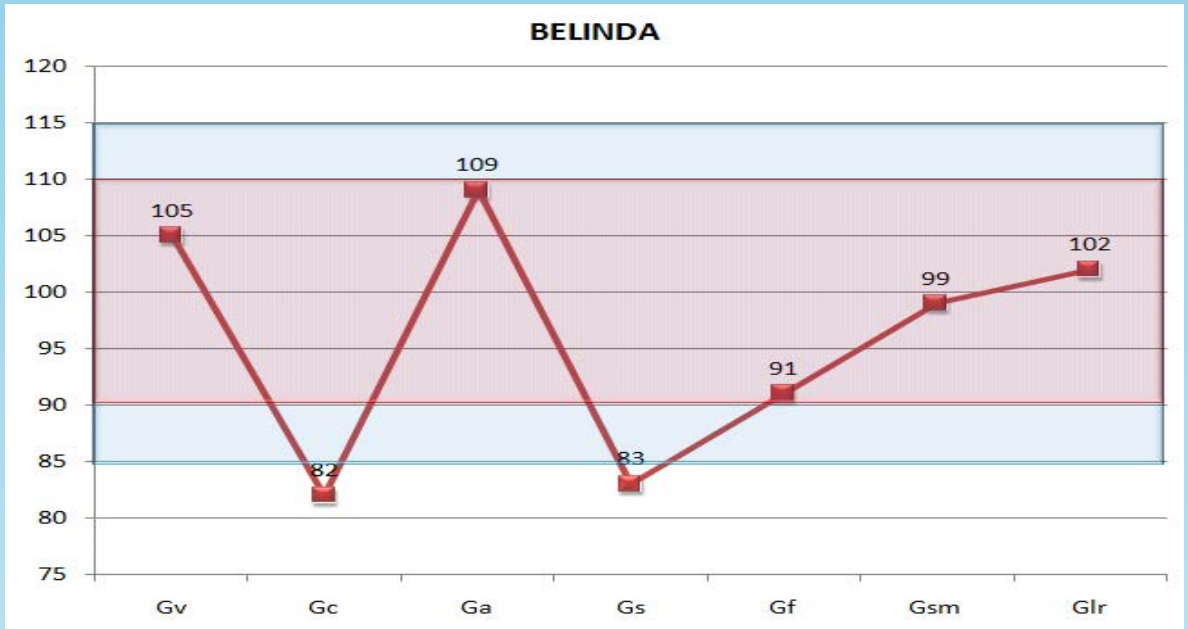
Different Cognitive Profiles Suggest Different Interventions



- Amy's cognitive testing shows a significant deficit in phonetic coding – she doesn't know how to translate symbols into sounds
- *Ga* deficit impacts her fluency – labored reading
- Lack of decoding and fluency impacts comprehension
- *Intervention should focus on Phonemic Awareness – Remediate Ga*

Mascolo and Flanagan (2008)

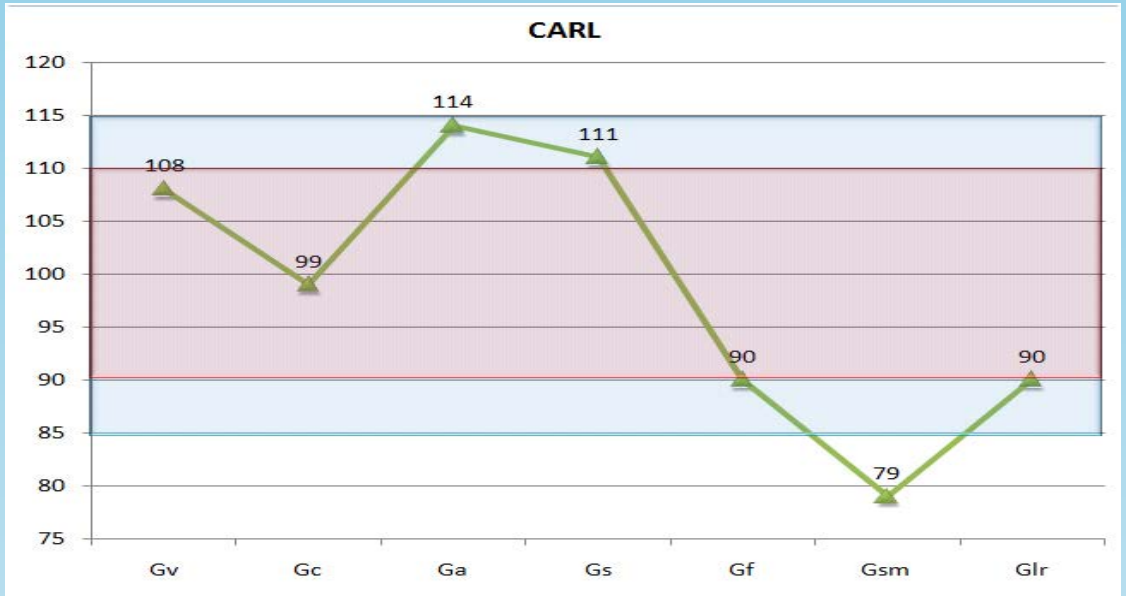
Different Cognitive Profiles Suggest Different Interventions



- *Gc* deficit – language deficit
- Comprehension is poor b/c of low *Gc*
- Poor vocabulary – needs to re-read to gain meaning, which impacts fluency
- *Intervention should focus on vocabulary development – Remediate Gc-VL, KO*
- Accommodation of extended time due to a global *Gs* deficit

Mascolo and Flanagan (2008)

Different Cognitive Profiles Suggest Different Interventions



- *Gsm* deficit
- Decoding is poor – he cannot hold the complete phonemic string in mind long enough to say the word
- Comprehension is poor because he needs to allocate all memory space decoding words and therefore cannot focus on meaning
- Fluency is impaired because he must re-read the text to gain meaning
- *Intervention should focus on developing a sight word vocabulary*
- Carl needs to be taught *compensatory strategies* to assist with poor *Gsm (text previews; guided notes; one comprehension question at a time)*

Mascolo and Flanagan (2008)

Academic Manifestations of *Gf* Deficit

- Reading
  - Difficulties with inferential reading comprehension
  - Difficulty abstracting main idea
- Writing
  - Difficulty with essay writing and generalizing concepts
  - Difficulty developing a theme
  - Difficulty with comparing and contrasting ideas
- Math
  - Difficulties with math reasoning (word problems)
  - Difficulties with internalizing procedures and processes used to solve problems
  - Difficulty apprehending relationships between numbers

Targeted Feedback

- Feedback to students is important and needs to be *concrete* and *specific*
  - Highlight parts of the task that they executed appropriately
  - Identify where things went "wrong" or off-course
  - Describe how to correct the mistakes
  - Provide opportunity for self-correction and/or practice

Mascolo & Flanagan, 2008

Targeted Feedback Example

1. Read the Problem
2. Select Important Information
3. Select Operation to Use
4. Solve the Problem
5. Check your work (ask yourself: does my answer make sense?)

Ann baked 12 cookies for her school's bake fair. She had 3 customers in her line that each wanted a cookie. How many cookies did she have left after she served the customers?

12

X 3

36

Mascolo & Flanagan, 2008

Targeted Feedback Example

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3. Select Operation to Use
4. Solve the Problem
5. Check your work (ask yourself: does my answer make sense?)

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12

X 3

——

36

Feedback:

Great job of selecting important information (numbers 12 and 3)

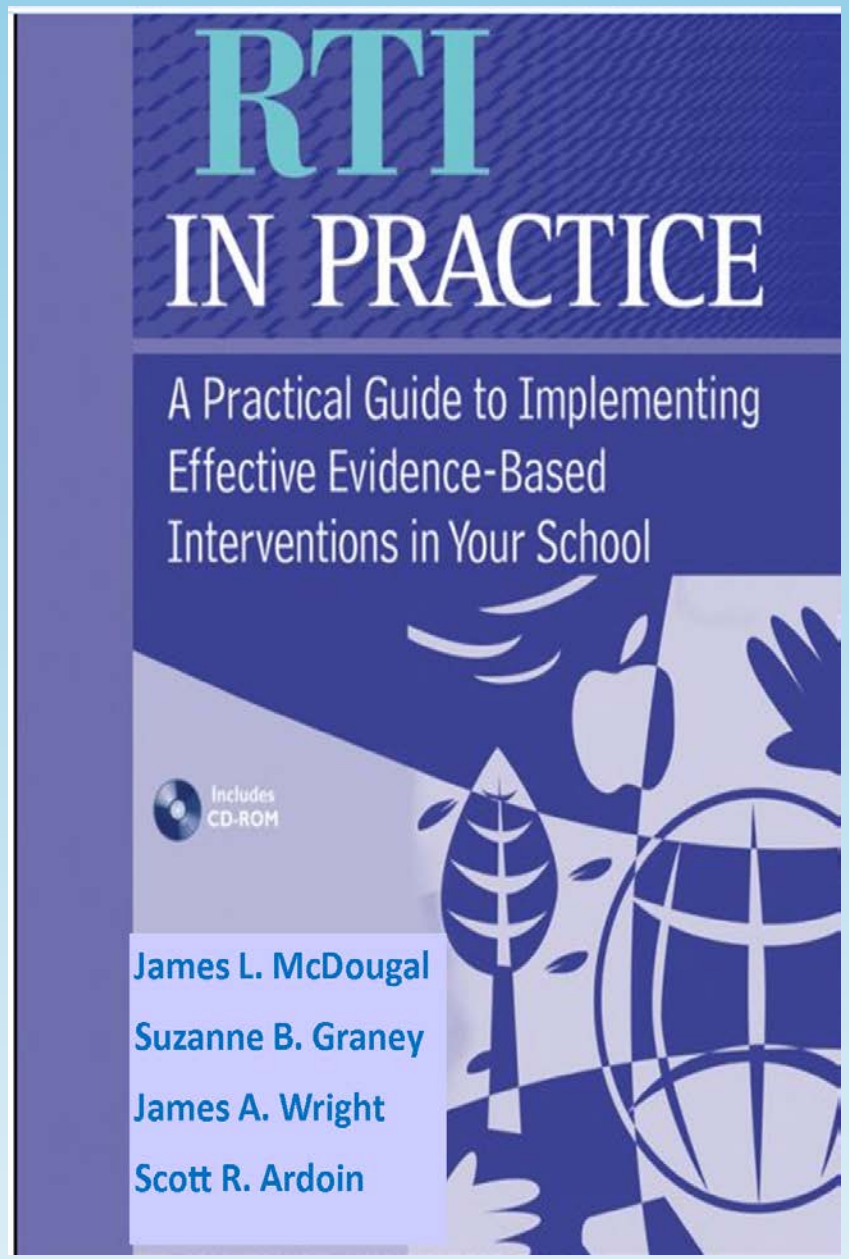
Did not identify the appropriate operation (used multiplication instead of subtraction)

I think you might have seen the word "each" first and selected multiplication, but if you read on you would have realized that the question was asking about "how many left" and could have selected subtraction

Focus on reading the whole problem first, then going back to reread for what the problem is asking for.

Also, if you checked your work, you might have seen that the answer 36 did not make sense in the context of the problem. Your computation was correct, but how could she have more cookies left than what she started with?

Mascolo & Flanagan, 2008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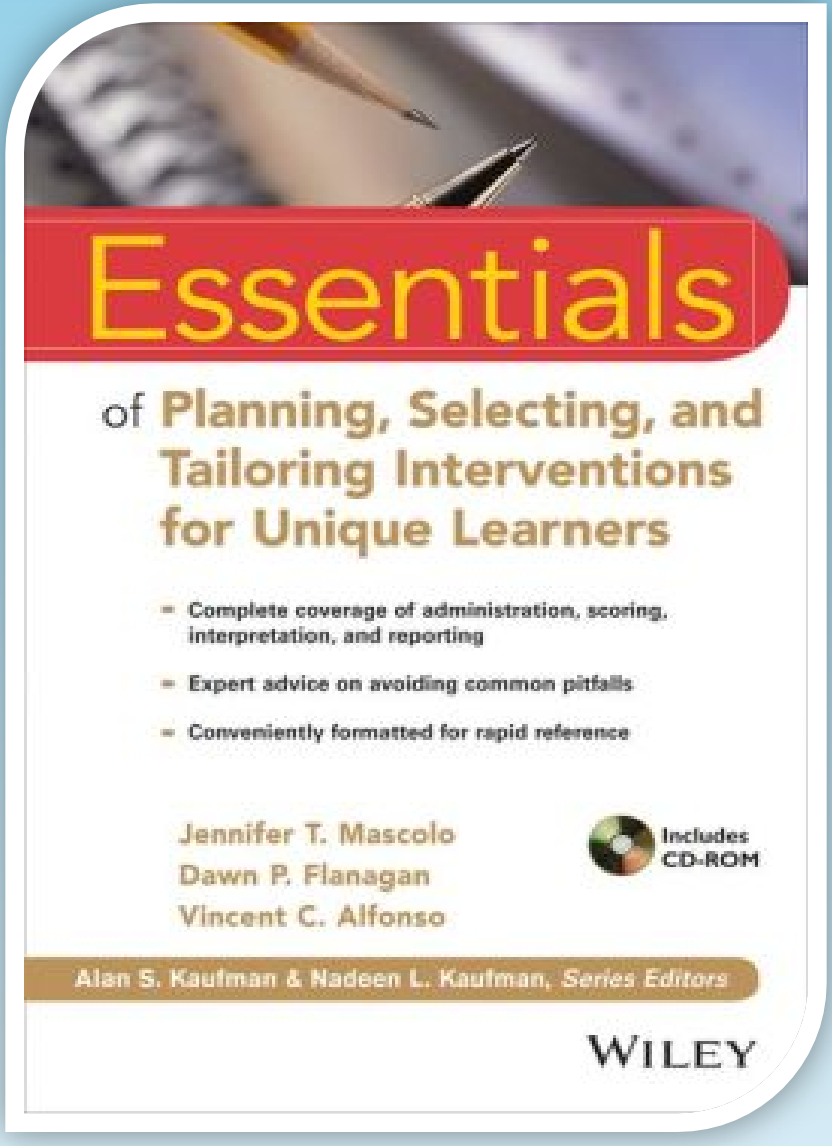
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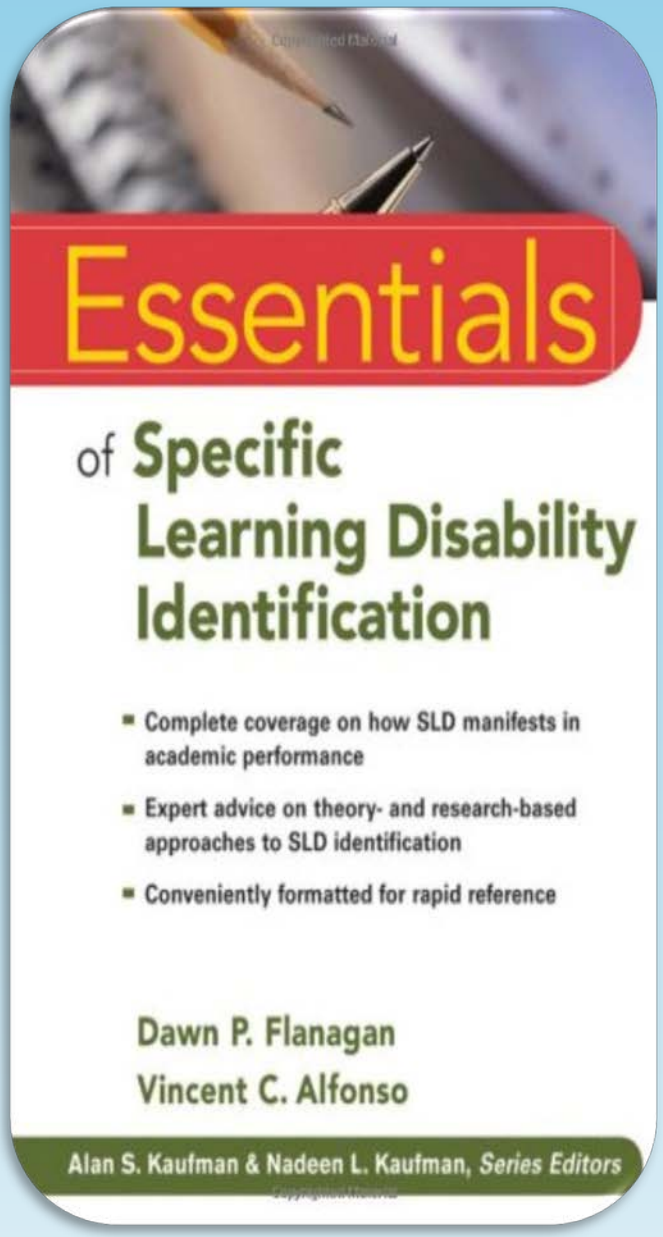
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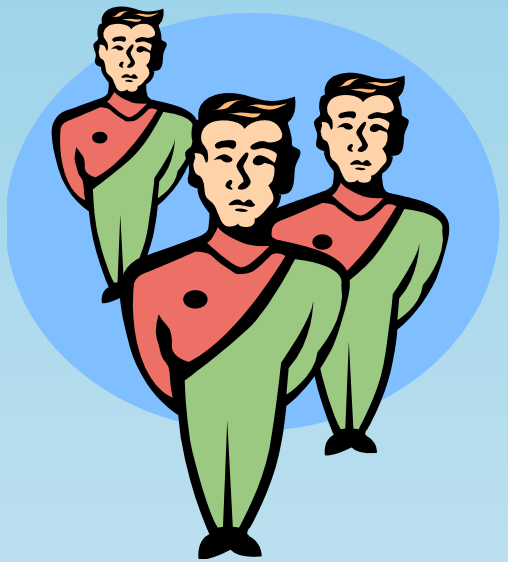

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