Linking achievement and Basic Psychological Processes

Megan Anderson-School Psychologist

Keely Swartzer-Special Education Coordinator

Agenda

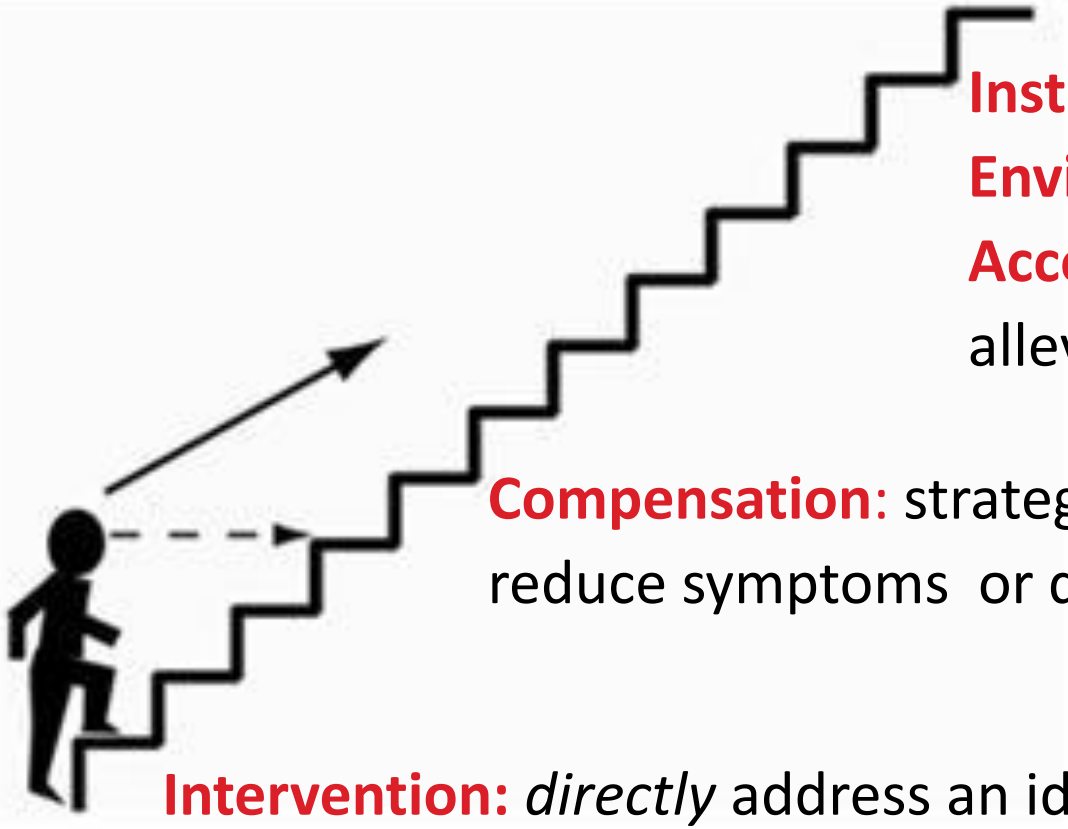
- Why are we training on Basic Psych Processes (BPP's)?
  - Support in closing the achievement gap
  - Requirements for Evaluation of Basic Psych Processes
- Terminology
- BPP's Defined
- RIOT, spiral, etc.
- Observable indicators activity
- More on assessment
- Q and A

Goal of Training

- Focus on “What data?” for “Which purpose?” to accelerate skill acquisition to make progress toward grade level standards.
- AM: “What data?”
- PM: “What data?” for “Which purpose?”

BIGGEST GOAL OF NEW GUIDANCE

We Believe it is Possible to Close the Gap for Kids with Disabilities

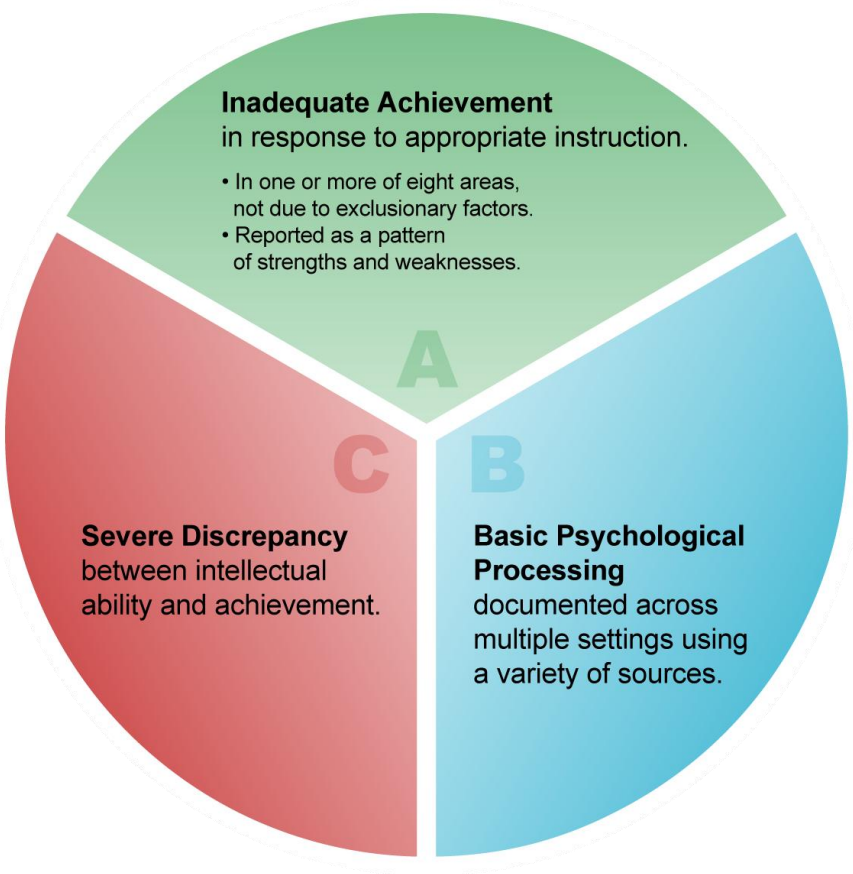


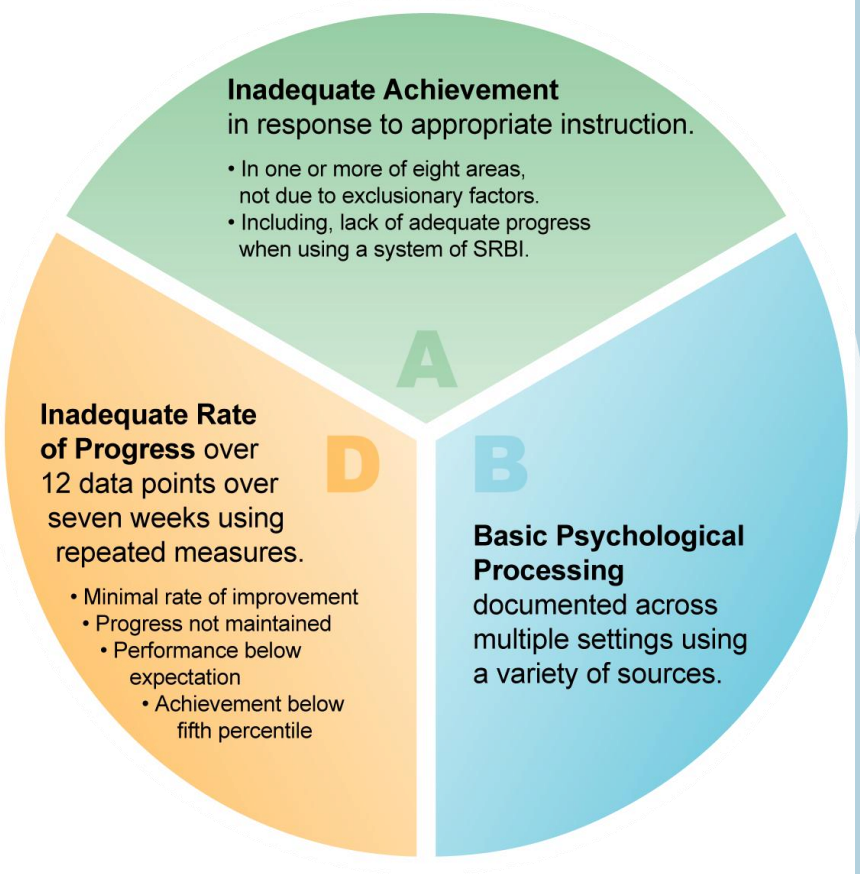
Instructional, Curricular, and Environmental, Accommodations: supports to alleviate the symptoms

Compensation: strategies student uses to reduce symptoms or demands

Intervention: *directly* address an identified area of weakness a.k.a *remediation*

Specific Learning Disabilities Eligibility Criteria Options





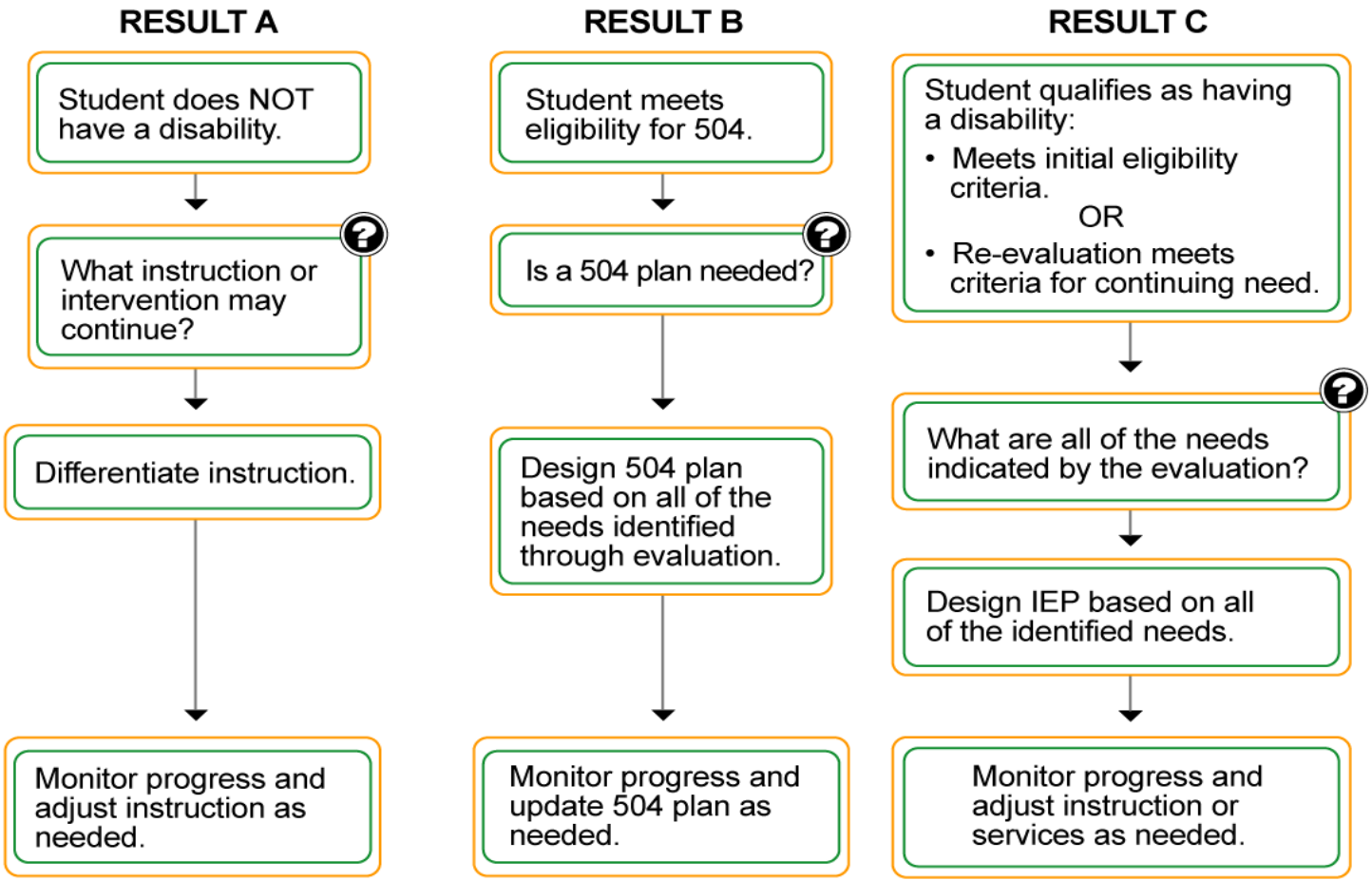
(p. 1-8)

Purpose of evaluation

- Evaluation is used to determine the next right instructional step…eligibility for special education is just one possible next step.

Screening | Instructional Decision | Monitoring Progress | Determining Eligibility

RESULTS OF SPECIAL EDUCATION EVALUATION



Evaluation Report Summary

- Paragraph 1: Eligible or not? How did they meet criteria?
  - Summarize criteria sheet in sentence format.
- Paragraph 2:
  - Summary of strengths and weaknesses including information from all sections of the ER plus…
    - Basic psych processes information from multiple sources:
      - Observable and measurable weaknesses
      - Observable and measurable strengths
      - Notable compensatory strategies or accommodations that have been successful
  - What do they do well?
    - Mitigate impact of disability.
  - Identify areas where existing instructional supports are sufficient.
    - What should we continue to do because it is working?
  - What interferes with making progress in the general curriculum?
    - Cognitive demands or Basic Psychological Processes

p. 9-27

Next Right Instructional Step

- Primary goals of interpreting achievement data:
  - To document all areas of concern
  - Identify areas where existing instructional supports are sufficient
  - Identify need for continued intervention or specialized instructional supports may be altered to improve achievement in Special Education Needs portion of ER
  - Identify need for accommodations or modifications that must be made to provide access to grade-level standards in Accommodations/Modifications portion of ER

We Can Analyze Grade-level Expectations for Cognitive Demands

9. Compare and contrast the most important points presented by two texts on the same topic.

	and developed, and the connections that are drawn between them.		individuals, ideas, or events interact and develop over the course of the text.
Craft and Structure			
9.5.4.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).	11.5.4.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).
9.5.5.5	Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).	11.5.5.5	Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
9.5.6.6	Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.	11.5.6.6	Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text.
Integration of Knowledge and Ideas			
9.5.7.7	Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.	11.5.7.7	Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.
9.5.8.8	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.	11.5.8.8	Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., *The Federalist*, presidential addresses).

"BASIC PSYCHOLOGICAL PROCESSES"

- It will take more than the psychologist to design special education plans linking processing and achievement
- Gathering this information and using this information should be a team effort.
- Think about: How are your child study teams going to make this happen?

Documentation sources for basic psych processes MUST include:

- Aptitude tests (cognitive) AND Achievement tests
- Parent input
- Teacher recommendations
- Data used to document exclusionary factors
- Should not be based on one piece of evidence
- Additional evidence may come from student input, classroom observation/checklists, behavior observed during assessment, screening data, relevant medical data, input from other school personnel, independent evaluations, etc.
- Multiple sources of data across multiple environments

MN. Rule 3525.1341 Subp. 2B

TERMINOLOGY USED IN RULE/Sped Forms

… one or more of the basic psychological processes which includes an information processing condition that is manifested in a variety of settings by behaviors such as inadequate:

- Acquisition of information;
- Organization;
- Planning and sequencing (new);
- Working memory, including verbal, visual, spatial (new);
- Visual and auditory processing (new);
- Speed of processing (new);
- Verbal and non-verbal expression;
- Transfer of information;
- Motor control for written tasks

List in MN Rule is not exhaustive

MN. Rule 3525.1341 Subp. 2B

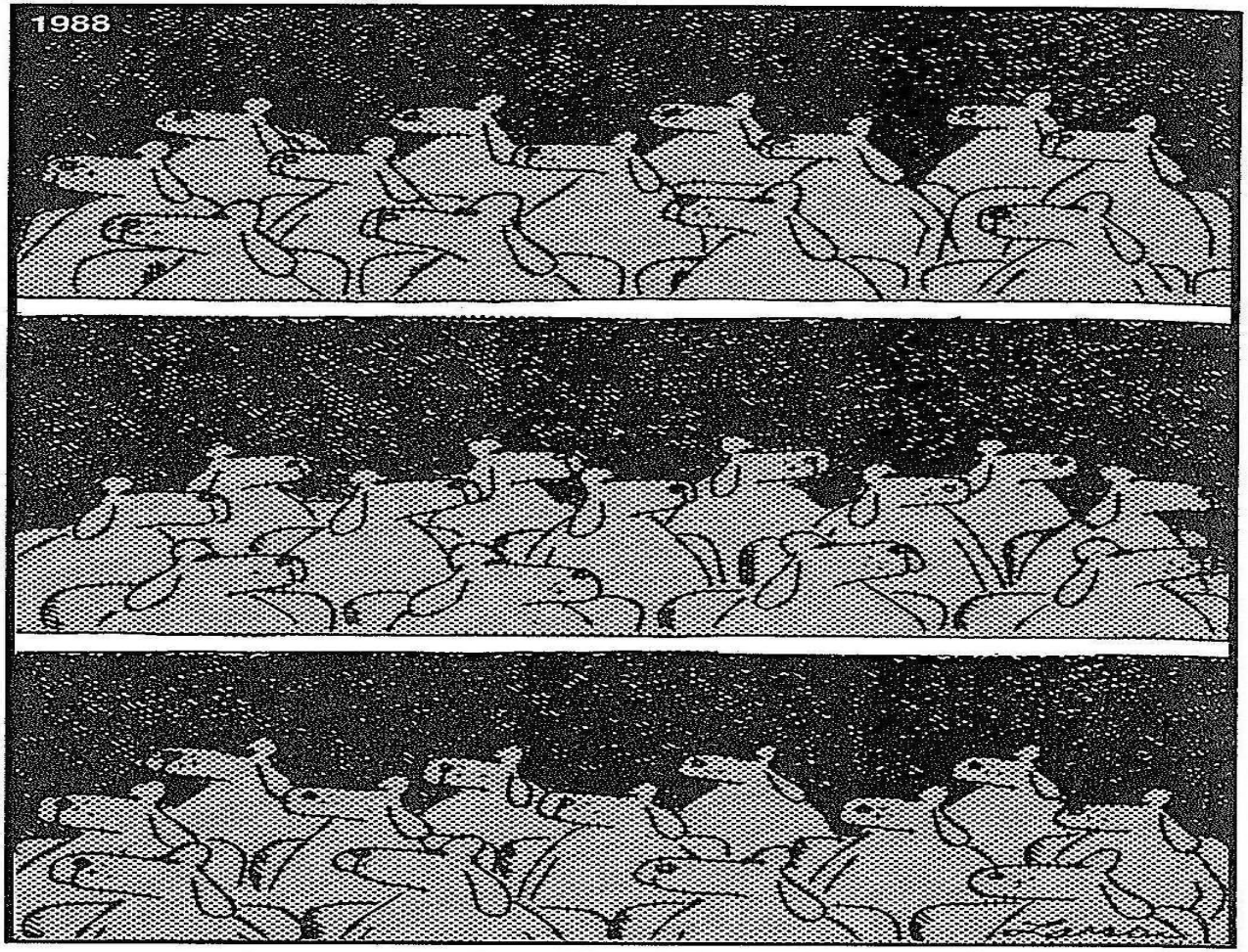
BASIC PSYCHOLOGICAL PROCESSES LINKED WITH DISABILITIES (Research Terminology)

- Executive functions
- Attention
- Short-term memory
- Fluid Reasoning
- Long-term retrieval
- Associative memory
- Phonological Processing
- Morphographic and orthographic processing
- Successive and simultaneous processing

Pretest

- Look at the handout “Rule to Research”
- The far right column has been left blank.
- Work with one other person to decide if each basic psychological process is an input, integration, or output process.

Acquisition (sustained attention)



At the popular dog film, *Man Throwing Sticks*

Acquisition (remains from SOAREM)

- This is an “input” function.
- SOAREM defined acquisition as: accurately, gaining, receiving, and/or perceiving information.

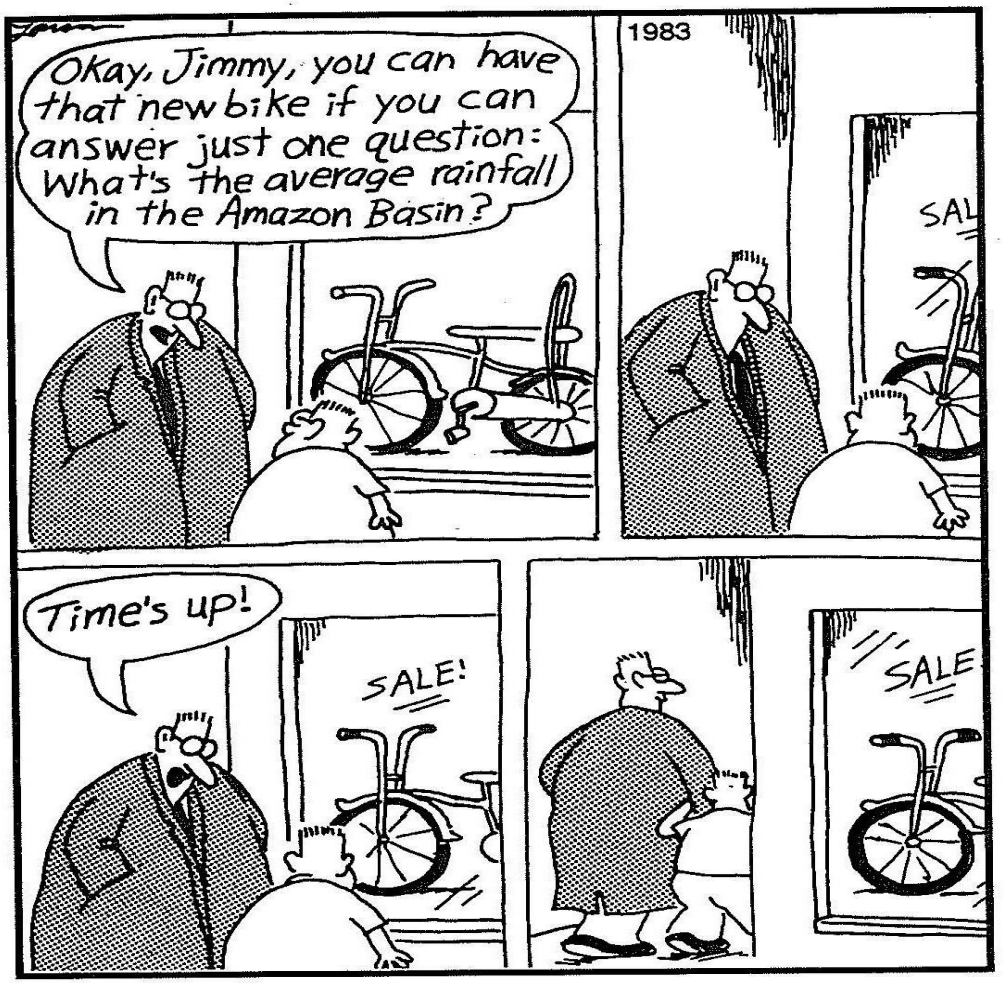
19

Acquisition-Impacts

- Difficulty with:
  - Perception
  - Receiving information
  - Comprehending
  - Absorbing
  - Linking
  - Encoding
  - Gaining

- Difficulty with:
  - Attention
    - Orienting and focusing
    - Sustained attention
  - Short term memory
  - Phonological Processing
    - Awareness
    - Memory
  - **Speed of Processing**

Speed of Processing



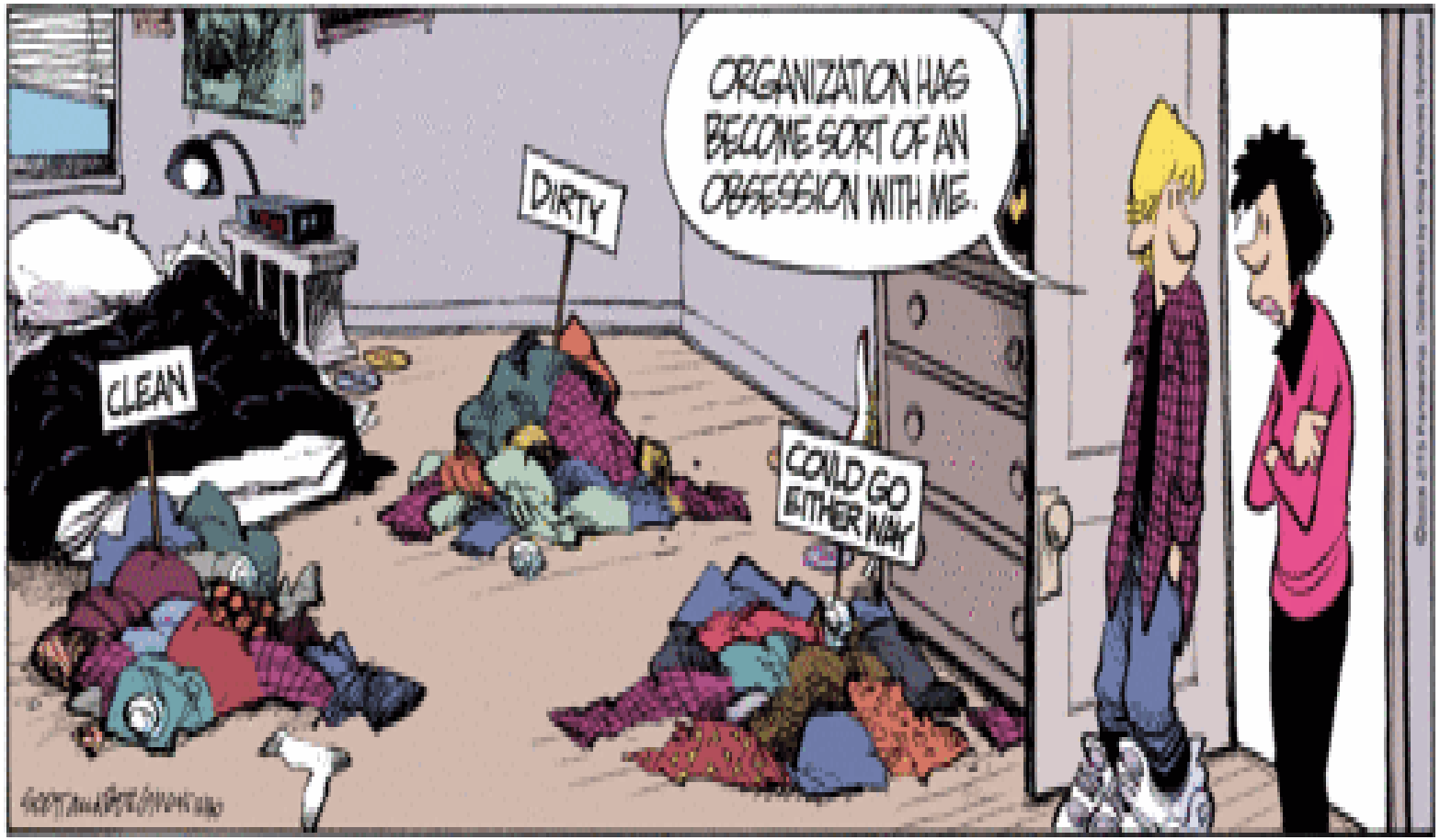
SPEED OF PROCESSING-NEW

- Friends with "Acquisition of Information"
- Definition: Perform cognitive tasks fluently and automatically, especially when under pressure to maintain focused attention and concentration.
- Processing speed may also impact pace of retrieval of information and general rate of work completion.
- Processing speed may be a hallmark of SLD when other cognitive processing abilities are within or above normative ranges.

Speed of processing-Impacts

- Difficulty with:
  - Efficient processing of information
  - Quickly perceiving relationships
  - Working within time parameters
  - Completing simple rote tasks quickly
  - Answering questions quickly, may appear as a time delay or lag
  - Retrieving information from memory quickly
  - Overload and loss of meaning if information is presented too quickly
- If the speed of the course or pacing in delivery of content exceeds the student's capacity to keep up, the student may appear inattentive, confused, frustrated or overwhelmed.

Organization



Organization (Remains from SOAREM)

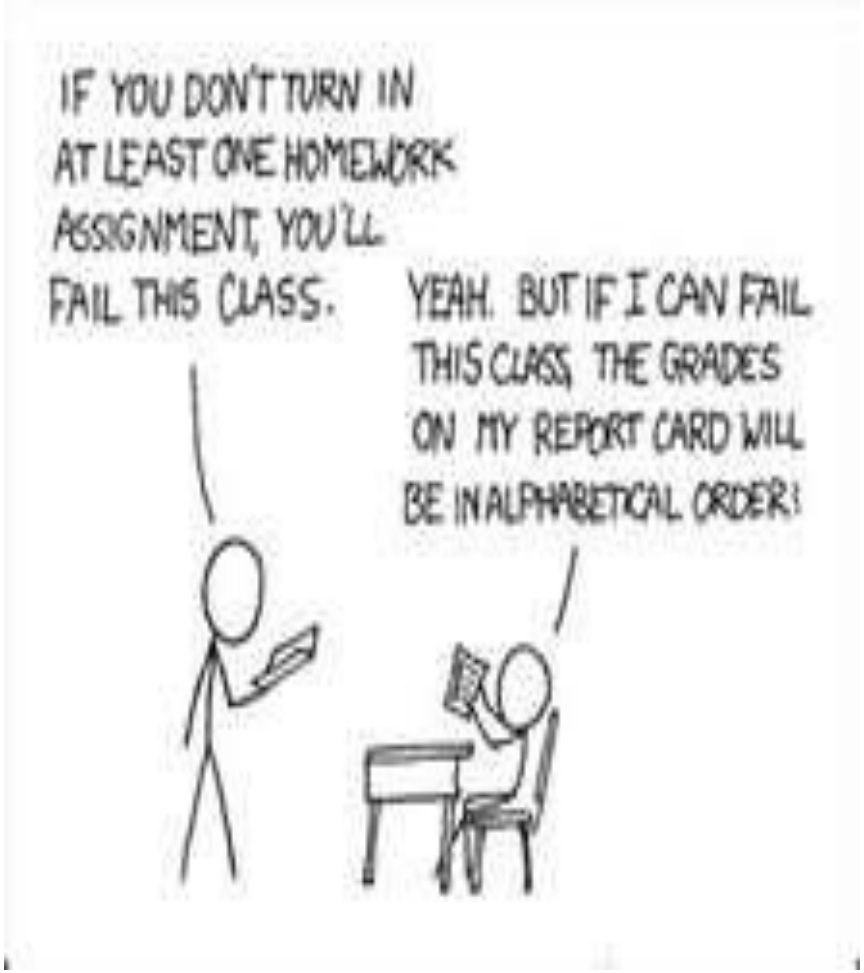
- This is an “integrating information” function.
- SOAREM defined organization as: structuring information, categorization, sequencing
- As you will see as we continue, organization is friends with planning and sequencing.

Organization-impacts

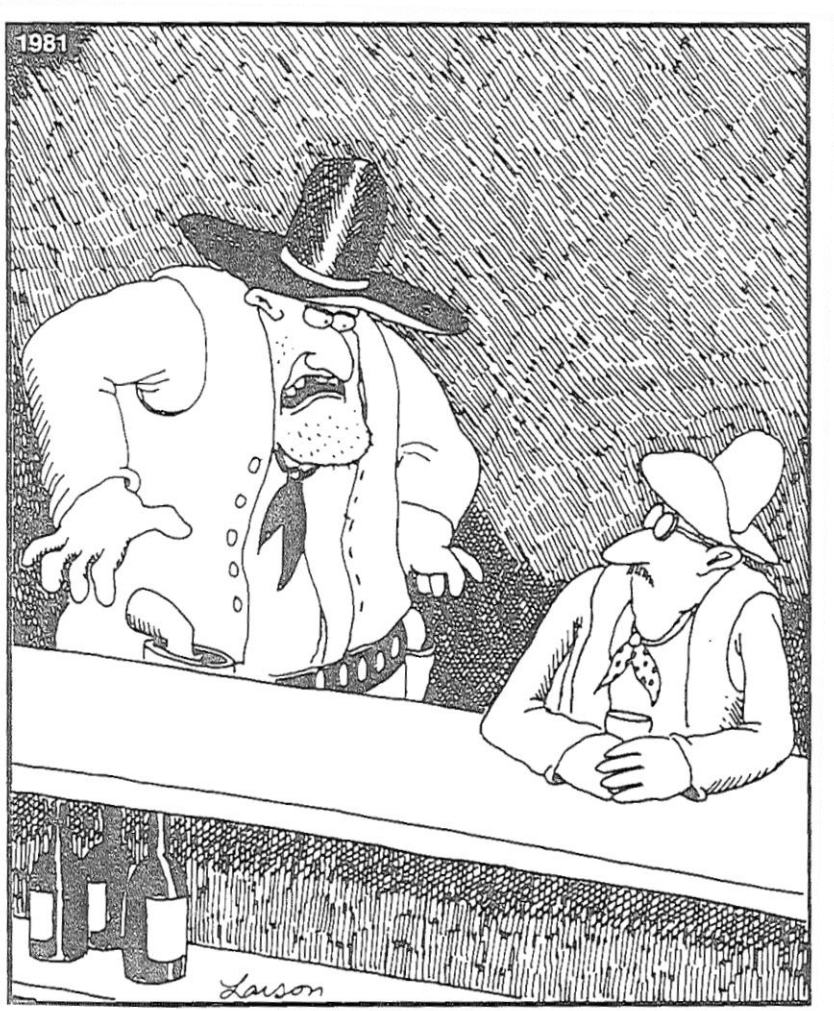
- Difficulty:
  - Differentiating
  - Ordering
  - **Sequencing**
  - Categorizing
  - Clustering
  - Time managing
- **Planning**
- Associating
- Mapping
- Labeling
- Following directions
- Webbing
- Prioritizing
- Arranging

Planning and sequencing-NEW

- These are “integration of information” processes.



ESSENCE OF WORKING MEMORY



"I asked you a question buddy. . .What is the square root of 5,248?"

Working memory (verbal, visual, spatial)-NEW

- Definition: The ability to hold information in immediate awareness and use it within a few seconds including the ability to store information long enough to manipulate it.
- Example: Looking a phone number up on your cell phone, keeping it in your memory, and then dialing it.
- Educational Example: Mental math
- Turn to your neighbor and think of 2 more examples.

Working memory-impacts

- Difficulty with:
  - Language development
  - Phonological and visual-spatial coding
  - Following oral multi-step directions
  - Rote memorization
  - Sequencing or ordering items presented once
  - Comprehension activities (summarizing, predicting, recalling facts)
  - Note taking and copying (due to divided attention)

VISUAL PROCESSING

VISUAL AND AUDITORY PROCESSING-NEW

- Definition of visual processing: An individual's ability to perceive, analyze, synthesize, manipulate and think about visual patterns and the ability to form and store a mental representation of an image, visual shape, or configuration over at least a few seconds and then recall it later.
- Educational example of visual processing: Tangrams, puzzles, graphs, drawing, geometry

Visual processing-impacts

- Difficulty with:
  - Spelling (orthographic processing)
  - Recognizing patterns or trends in visual information
  - Focusing on fine visual detail
  - Recognizing spatial relationships and characteristics
  - Organizing and recalling visual material
  - Reading connected text as opposed to word lists
- More likely to impact math in high school (geometry, trigonometry)

AUDITORY PROCESSING

VISUAL AND AUDITORY PROCESSING-NEW

- Definition of auditory processing: An individual's ability to perceive, analyze, synthesize and discriminate between patterns in speech and sound.

- Not related to language comprehension because the issue is with accurately perceiving the sounds not trying to make meaning from what you hear.

Auditory processing-impacts

- Difficulty with:
  - Sound-letter correspondence and phonemic awareness skills
  - Accurately perceiving speech and oral language
  - Acquiring foreign language
  - Developing receptive vocabulary
  - Musicality
  - Accurately hearing information presented orally
  - Resisting auditory distractions

VERBAL AND NON-VERBAL EXPRESSION

Verbal and non-verbal expression

- Expression came from SOAREM. It was defined as “communicating information.”
- In rule, they have added the terms verbal and non-verbal.
- Verbal and Non-Verbal Expression is good friends with Transfer of Information and Motor Control for Written Tasks.

Verbal and non-verbal Expression-impacts

Difficulty with:

- Verbal
  - Reading
  - Acting*
  - Reciting
  - Speaking
  - Naming*
  - Sharing*

*Could be both

- Non-verbal
  - Handwriting
  - Copying
  - Tracing
  - Illustrating
  - Showing*
  - Demonstrating*
  - Gesturing
  - Pointing
  - Creating
  - Drawing
  - Typing

Transfer of information

"Nice essay, Tom, your cut and paste skills are beyond reproach."

40

Transfer of information

- Defined as: Moving information from one place to another
- Examples: Copying from the board, poor use of space and lines on page, spacing issues before, between, and within words

MOTOR CONTROL FOR WRITTEN TASKS

"I can't read a word of this essay of yours. Excellent work."

Motor control for written tasks

- Defined as: The ability to use purposeful muscle movement for written tasks
- Examples include: Slow effortful writing, poor pencil grip, lack of fluidity/automaticity

Questions regarding definitions of BPP's

Break time

45

Observable indicators

- Indicators help define outcomes and make them observable.
- Must be:
  - Seen
  - Heard
  - Read
  - Calculated

Observable indicator activity

- Partner up.
- Walk around to each BPP poster and write a few observable indicators for each.
- Remember to consider as many sources of data as possible. This can include information prior to referral.

Sources of Data by SLD Criteria

Criteria A—Inadequate Achievement

- Repeated measures of achievement
- Cumulative record review
- Class work samples
- Teacher records
- State or district assessments
- Formal & informal tests
- Curriculum Based Evaluation results
- Results from targeted support programs

Criteria B—Basic Psychological Processes

- Tests of aptitude
- Parent input
- Teacher recommendations
- Data used to document exclusionary factors
- Student input
- Classroom observations or checklists
- Behaviors observed during assessment
- Screening data
- Relevant medical data
- Input from other personnel
- Independent evaluations

Break time

49

Acquisition-Observable indicators

- Examples of Difficulties:
  - Sustaining attention during lecture
  - Orienting their attention to the speaker or reading material
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Speed of Processing

- Examples of Difficulties:
  - Difficulty with timed math fact tests
  - Long pauses after being asked to answer a question verbally
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Organization-observable indicators

- Examples of Difficulties:
  - Difficulty knowing where to start on a page
  - Difficulty organizing personal spaces (locker, desk)
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Working Memory-Observable Indicators

- Examples of Difficulties:
  - Difficulty recalling sequential events in a story immediately after hearing it once
  - Mental math
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Planning and sequencing-observable indicators

- Examples of Difficulties:
  - Difficulty telling a story in sequence
  - Difficulty breaking long projects into smaller tasks
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Visual and Auditory processing

- Examples of Difficulties:
  - Difficulty interpreting a graph or chart
  - Difficulty recognizing rhyming words
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Verbal and non-verbal expression-observable indicators

- Examples of Difficulties:
  - Difficulty with word finding when speaking orally
  - Difficulty formulating a complete sentence in writing
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Transfer of information-observable information

- Examples of Difficulties:
  - Difficulty keeping numbers in alignment
  - Difficulty copying written items from one page to another
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Motor control for written tasks-observable indicators

- Examples of Difficulties:
  - Difficulty forming letters
  - Difficulty staying on a line when writing
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____
  - _____

Questions