Using Basic Psychological Processes to Drive Instruction and Accommodations

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Defining Your Job

- What is your job?
  - As it relates to:
    - Assessment
    - Data
    - Intervention
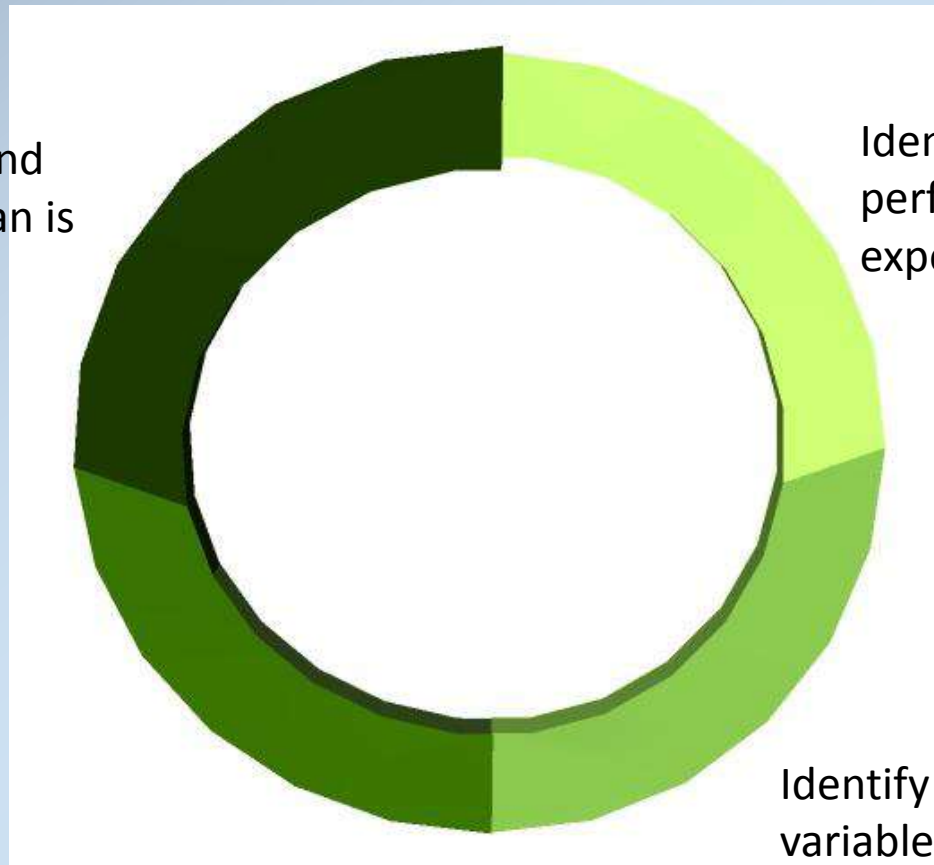   - Accommodations
    - Strategies
    - Modifications

Before we can be expected to intervene…

- What do we need to know?

We Improve Achievement with Problem Solving

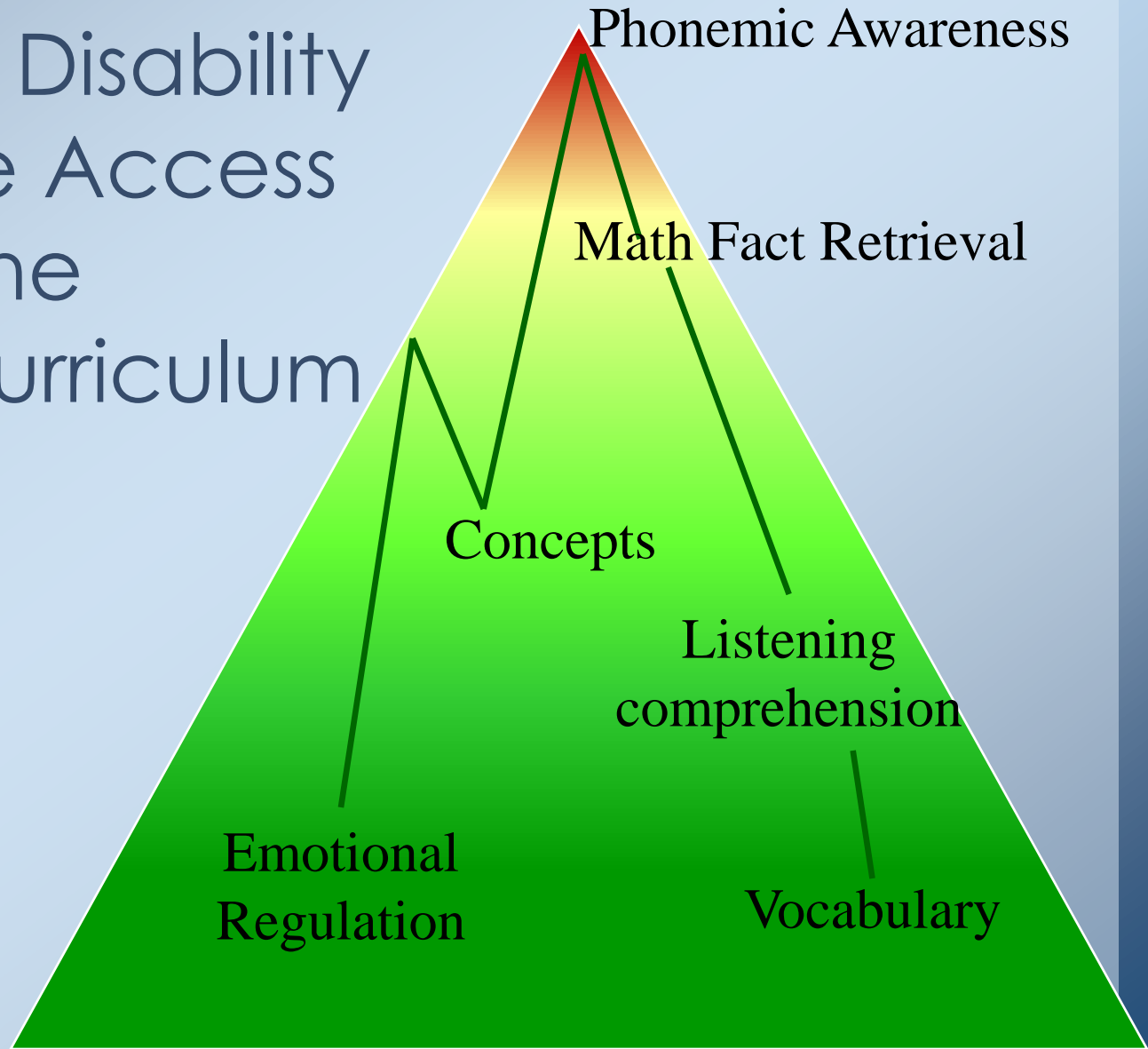Evaluate the data and determine if the plan is working.

Identify gaps between performance and grade-level expectations.

Carry out the intervention as intended.

Identify the instructional variables to be included in plan to address the gap.

Chapter 4-15, 6, 8, 9, 10

A Student With a Learning Profile that Suggests a Disability Must Have Access to the General Curriculum

Phonemic Awareness

Math Fact Retrieval

Concepts

Listening comprehension

Emotional Regulation

Vocabulary

Adapted from Sugai 2009

Evaluation Report

- Use Documentation of Basic Psych Processes Chart to organize and identify convergence of data. This can be placed in the evaluation report under achievement, and it is available under local templates.

  - Use this form to document pieces of information your assessment team has within the report in each BPP.

  - Remember, you can use information you have from pre-referral as well.

  - This form should help you see a convergence of data to help you identify relative strengths and weaknesses.

  - If there are gaps in information, you should work with your team to gather more information. This doesn't necessarily mean more assessment but using what you have and discussing information.

  - Please don't do this haphazardly, as this provides you valuable information to inform the needs of the student.

Documentation of Basic Psychological Processes

Basic Psychological Process	Below Average Standardized Assessment (SS<85) Informal Assessment (compared to typical peer)	Average Standardized Assessment (SS 85-115) Informal Assessment (compared to typical peer)	Above Average Standardized Assessment (SS >115) Informal Assessment (compared to typical peer)
Acquisition of Information			
Organization			
Planning and Sequencing			
Working Memory			
Visual and Auditory Processing			

Summary

Paragraph 1	Paragraph 2
• Eligible or not? How did they meet criteria? • Summarize criteria sheet in sentence format.	Summary of strengths and weaknesses including information from **all sections of the ER**. • Any area that was assessed should be summarized within this section, even if it is just 1-2 sentences. For assessments that include Basic Psych Processes information, use this paragraph to summarize BPP chart and information including: • Observable and measurable weaknesses • Observable and measurable strengths • Notable compensatory strategies, instructional supports or accommodations that have been successful to mitigate the impact of the disability

Next Right Instructional Step

- Primary goals of interpreting assessment 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

Needs and Accommodations Section

Special Education Needs Section	Accommodation and Modifications Section
• Identify need for "specialized instruction" and specify areas of need. • ==This should be informative enough to drive your IEP goals, objectives, and services.==	• Identify need for accommodations or modifications that will assist the student in accessing grade level standards. • Any additions or modification that would enable the student to meet the annual goals should be listed here as well. • List these out based on the findings in the evaluation. Remember to list successful accommodations or modifications that you are currently providing. • ==This information should be transferred to the IEP==

Criteria Checklist: To Check or Not to Check

- A: Documentation of Inadequate Achievement

  – The child does not adequately achieve in response to appropriate classroom instruction

  – AND

  – The child exhibits a pattern of strengths and weaknesses in performance, achievement….

  Sources of info can include: Repeated measures of achievement, cumulative record review, classwork sample, teacher records, state or district assessment, formal or informal tests, curriculum based measures, and data from targeted supports/interventions.

Criteria continued…

- B: The child has a disorder in one or more of the basic psychological processes…

    – Information should come from chart

    – Look for convergence of data which should be identified as the weakness(es) in the summary

    – This may need to be discussed as an assessment team

    – Do not just mark every item as this then shows NEED for us to address every item in the plan

More criteria…

- C: Severe discrepancy
  - Based on formal assessment of ability and achievement

Remember!

- No one in the cooperative is using ABD; therefore, that box (D) should not be checked.

We Are Always Evolving a Picture of the Learner to Improve Response to Instruction

- Problem Solving Prior to Suspicion of Disability

- Present Levels of Academic and Functional Performance

Formal Evaluation Process
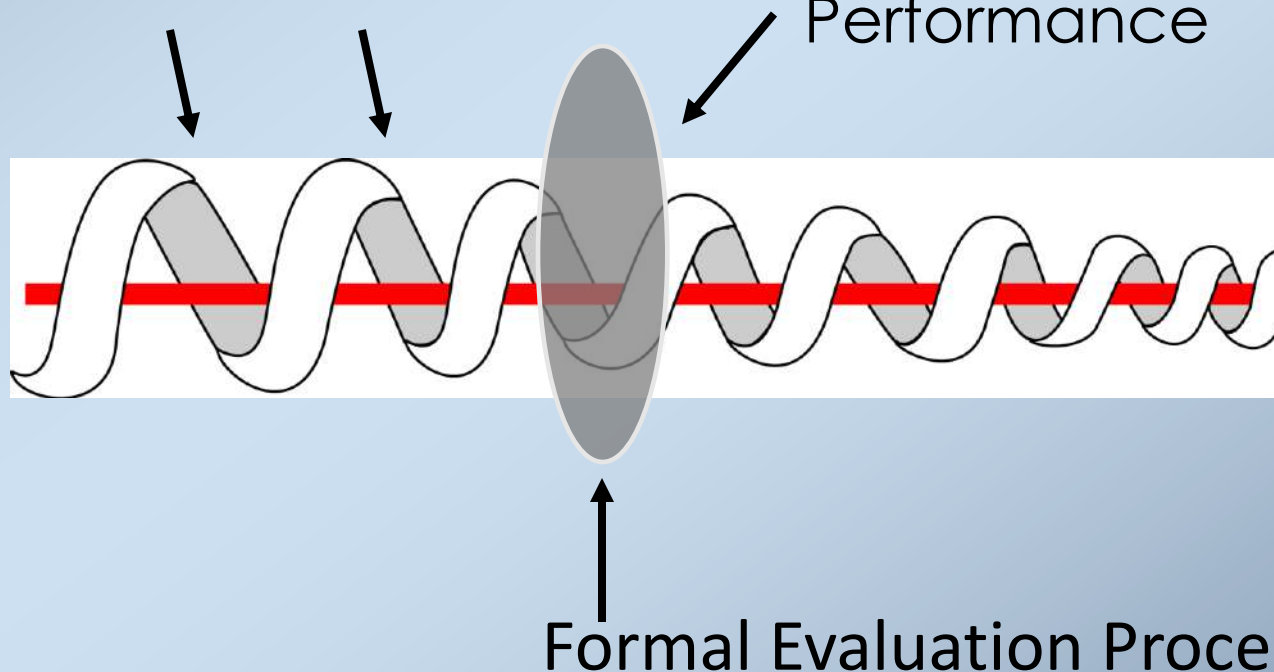
Basic Psychological Processes

- These are input, integration, and output processes we use to manipulate information in our brains.

- Everyone has strengths and weaknesses, not just the student with a Specific Learning Disability.

- The idea is to use the strength to accommodate for the weakness.

Acquisition is defined as: accurately, gaining, receiving, and/or perceiving information.

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

- Difficulty with:
  - Attention
  - Inhibitory control
  - **Speed of Processing**
  - Short term memory
  - Phonological Processing
    - Awareness
    - Memory

Acquisition

- Useful accommodations may include:
  - Visual supports, graphic organizers, guided notes, study guides
  - Keep student in close proximity to point of instruction
  - Minimize background noise
  - Allow students to ask clarifying questions
  - Activate prior knowledge
  - Teach self-cuing strategies
  - Use non-verbal cues
  - Break assignments and tasks into chunks
  - Minimize the amount of information to which the student must attend

Speed of Processing

- 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.

Speed of Processing

- Useful accommodations may include:
    - Provide most critical information first
    - Provide more wait time (even after questions are asked and responses are given)
    - Provide extended time and time to ask questions
    - Shorten directions and/or assignments; reduce quantity of work in favor of quality of work
    - Evaluate your pacing of information
    - Allow student multiple ways to process information
    - Provide activities that increase rate and fluency
    - Teach students to skim or scan for key information when reading (titles, headings, bold words, etc.)
    - Allow "hands on" products to demonstrate mastery of content
    - Limit copying activities

Speed of Processing-Recommendations/Interventions

- Repeated practice

- Speed drills

- Online activities
  - http://www.arcademicskillbuilders.com/games/
  - Computer activities that require quick, simple decisions

- Choral repeated reading

- Books on tape

Organization, Planning and Sequencing

- Defined as: structuring information, categorization, sequencing

Difficulty:

❑Differentiating
❑Ordering
❑**Sequencing**
❑Categorizing
❑Clustering
❑Time managing

❑**Planning**
❑Associating
❑Mapping
❑Labeling
❑Following directions
❑Webbing
❑Prioritizing
❑Arranging

Organization, Planning and Sequencing

- Useful accommodations include:
  - Explicitly teach organizational skills
  - Support students finding and internalizing their own method to organize or plan
  - Teach strategies explicitly
    - Components of a strategy
    - When to use the strategy
    - Why it is helpful
    - Why a particular strategy may be more helpful in a set of circumstances over another
  - Use peer based instruction like reciprocal teaching or peer tutoring as this provides another explicit model of how to think, organize, cue and self manage while teaching content

Organization, Planning and Sequencing

- Teach students to sub-vocalize to self-regulate

- Teach note taking strategies

- Use curriculum with built in visual cues and organizers

- Use visual timers or other timers to show the passage of time; explicitly teach students to feel and estimate the passage of time

- Explicitly teach self-cuing strategies so they will remember to act at the moment they need to (i.e.. Leave yourself a message, use a calendar, etc.)

- Break projects or large tasks into chunks with multiple points for feedback

Working Memory (verbal, visual, spatial)

- 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.

- 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)

Working Memory

- Useful accommodations may include:
  - Provide short, simple directions using familiar language
  - Give students one direction at a time
  - Build in repeated opportunities to rehearse or practice directions or tasks
  - Think-pair-share, peer note-taker, or study buddy to provide clarifying directions when teacher is busy
  - Require the student to connect the known with the new (prior knowledge)
  - Break down instructional steps and tasks

Working Memory

- Allow time to process and practice frequently during instruction

- Include activities that require active engagement with material

- Organize and scaffold course materials to reduce working memory load

- Create instructional routines that provide review, rehearsal, and opportunities for summarization

- Teach strategies like chunking

Visual Processing

- Definition: 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.

- 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)

Visual Processing

- Useful accommodations may include:
  - Pair verbal information with visuals
  - Provide support for tasks that require spatial organization
  - Provide manipulatives and labels or verbal cues to facilitate understanding of visual and spatial concepts
  - Teach children to verbalize visual info to store it/remember it
  - Use visual memory games
  - Highlight margins and use paper with wider lines during writing tasks
  - Use graph paper or lined paper turned sideways to assist with number alignment

Auditory Processing

- 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.

- 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

Auditory Processing

- Useful accommodations may include:
  - Teach comprehension monitoring and strategies for reading
  - Use instructional materials that have visual supports for all oral instructional components or guided notes/study guides to support any oral instruction
  - Seat student close to the point of instruction
  - Minimize background noise (including talking) during lecture and work time
  - Provide multiple opportunities to ask clarifying questions for "missed" or "misheard" items during lecture
  - Make eye contact with student and/or face them so they can read your lips as you speak
  - Provide opportunities for students to record or re-listen to orally presented material
  - Provide written directions or visual cues to aid in comprehension and work completion

Auditory Processing-Recommendations/Interventions

- Phonemic awareness activities

- Emphasis on sight word reading

- Teaching comprehension monitoring (eg. Does the word I heard/read make sense in context?)

- Use work preview/text preview to clarify unknown words

- Annunciate sounds in words in an emphatic manner when teaching new words for reading or spelling

Verbal and Non-verbal Expression

- Defined as: "communicating information."

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

*Could be both

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

Verbal and Non-verbal Expression

Useful accommodations may include:
- oUse story planners/graphic organizers
- oAllow for dictation
- oAllow for different products to show mastery of content
- oUse oral interviews or dialogue journals
- oAllow students to write on tests/assignments instead of copying items from book/test
- oAllow use of note cards
- oAccept computer generated projects
- oAllow a scribe for a student
- oShorten assignments by focusing on key concepts only

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

- Useful accommodations may include:

  - Provide preprinted copy of notes

  - Decrease the need for student to take information from point A to point B

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

- Useful accommodations may include:
  - Provide preprinted notes/worksheets
  - Allow students a scribe or the chance to dictate
  - Decrease amount of written work
  - Allow special pens, paper, and pencils for written work
  - Accept computer generated projects
  - Shorten assignments by focusing on key concepts only

Accommodations, Modifications, and Interventions…Oh My!

- Accommodations are changes made to instruction and/or assessment intended to help students fully access the general education curriculum without changing the instructional content.

  - More time

  - Allowing movement

  - Allowing use of a recorder to tape lectures

- Modifications are alterations made to instruction and/or assessment that change, lower, or reduce learning or assessment expectations in regard to the goal being addressed or assessed.

  - Reducing the amount of content a student needs to know

  - Modifying test questions

  - Shortening a spelling list

- Interventions are specific skill building strategy implemented and monitored to improve a targeted skill and achieve adequate progress in a specific area (academic/behavioral.) It often involves changing instruction or providing additional instruction.

  - Repeated readings

  - Social skill instruction

Skills vs. Strategies

- Skills: automatic reactions that result in decoding and fluency and occur without awareness

- Strategies: deliberate, goal-oriented attempts to control and modify constructions of meaning

"It is important to promote both skills and strategic reading because students need to know how to read strategically."

Afflerbach, Pearson and Paris (2008)

SLD Learners Benefit when Core Instruction Uses Research Based Instructional Practices

- Self-monitoring

- Reinforcement

- Self-questioning

- Strategy instruction

- Frequent, targeted, feedback

- Strategy cues

- Drill-repetition-practice

- Direct instruction

- Repeated reading

- Error correction

- Formative evaluation

- Peer mediation

- Peer tutoring

- Direct questioning and response

- & more

Kavale (2005), Swanson (1999), Swanson & Sachse-Lee (2000)

Tier I: Scientifically-based Reading Instruction

Instructional Content	*Instructional Design*
- Phonemic Awareness - Phonics - Fluency - Vocabulary - Comprehension	- Explicit Instructional Strategies - Coordinated Instructional Sequences - Ample Practice Opportunities - Aligned Instructional Materials

Reading Fluency

- Findings

  - Students with LD who repeatedly read text between two and seven times scored significantly higher on measures of fluency.

  - Repeated reading with an adult model was a more effective method of improving fluency for students with LD than repeated reading after listening to a proficient peer, audiotape, or computer.

  - Repeated reading with a model also appears to have a positive impact on comprehension.

  - Another fluency intervention studied was chunking words or phrases to control how much text was presented to a student at a time. Students who practiced repeated reading of words presented 3-5 words at a time performed as well as students who practiced repeated reading without chunking words on measures of fluency and significantly higher on measures of accuracy.

- Combined Effects Size

  - Repeated reading as a method of improving reading fluency in children with LD had an average effect size of d = 0.68.

  - When repeated reading was used as one of several instructional features the mean effect size for measures of fluency was d = 0.71.

  - Students with LD who listened to a proficent adult model read a passage before they read it showed average effect sizes of 0.46 for reading accuracy and 0.34 for comprehension. However, modeling by a more proficient peer had negliable effect size of 0.17.

http://nichcy.org/research/summaries/abstract30

Reading Comprehension

A meta-analysis of reading comprehension interventions designed for typically developing children reported that the eight most effective methods for improving text comprehension were comprehension monitoring, co-operative learning, graphic/semantic organizers for learning new vocabulary, story structure training, question answering, question generation, summarization, and multiple strategy teaching (National Reading Panel, 2000).

What are you using that works?

Basic Reading Skills

- Decoding/Phonics

- Sight Word Recognition

- Phonemic Awareness

Math

- Fluency

- Calculation

- Problem Solving

Tier I: Evidence-Based Writing Practices

Findings from Writing Next (Meta-analysis for grades 4-12)

- **Writing strategies (ES overall=0.82,**n=20; ES for low achieving students=1.02, n=9).

- **Summarization (ES overall=0.82, n=4).**

- **Collaborative writing (ES =0.75, n=7).**

- **Specific product goals (ES overall=0.70, n=5;**"similar" effect for low-achieving students, n=2).

- **Word processing (ES overall=0.55, n=18; ES=0.70,** n=5 for low-achieving students).

- **Sentence combining (ES=0.50, n=5).**

- **Pre-writing (ES=0.32, n=5).**

- **Inquiry activities (ES=0.32, n=5).**

- **Process writing (ES=0.32, n=21).**

- **Study of models (ES=0.25, n=6).**

- **Writing for content-area learning (ES=0.23, n=26).**

Tip: Effective =
.8+ large
.5 moderate
.2-.3small

http://www.all4ed.org/files/WritingNext.pdf

Intervention Sites

Intervention Central

http://www.interventioncentral.org/academic-interventions

Go SBR

http://www.gosbr.net

Hiawatha Valley Ed. District

http://www.hved.org/index.php/resources/5-interventions-resources

National Center on RTI

http://www.rti4success.org/instructionTools

fi del i ty

- 1. strict observance of promises, duties, etc.: a servant's fidelity.

- 2. loyalty: fidelity to one's country.

- 3. conjugal faithfulness.

- 4. adherence to fact or detail.

- 5. accuracy; <u>exactness</u>: The speech was transcribed with great fidelity.
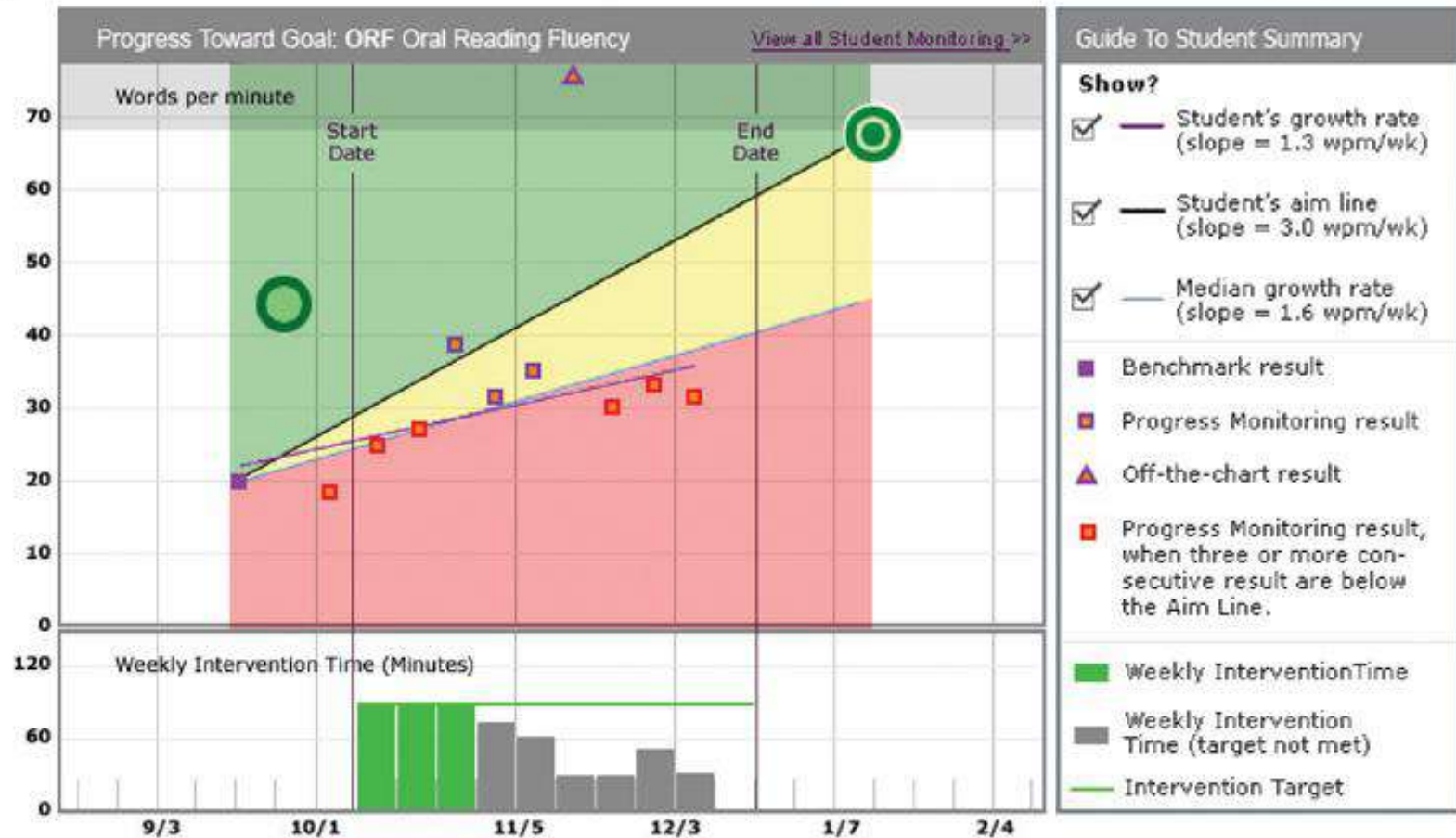
"What does fidelity in regard to intervention/instruction mean to you?"

Image courtesy of Wireless Generation. MDE does not endorse any product.

Implementing intervention > progress monitoring

- Different areas of concern/tiers need to be progress monitored at different frequencies.

- For example, behavior interventions may need to be monitored daily or hourly depending on the student, the concerning behavior, and the intervention.

- Academic interventions can be monitored between 1 x per week and 2 x per month depending on the tier.

Components of progress monitoring

- Baseline data-Must be collected before the intervention is started and will be used to set the goal line.

- Progress monitoring tool-Must directly measure growth in the area of concern.

  - For example, a math fact fluency probe would not directly measure improvement in a student's math reasoning skills.

  - Decision rules should be determined before the implementation of the intervention. This is important because it is used to evaluate the success of the intervention or the need to change the intervention.

Progress monitoring tools

- Curriculum based measures:
  - AIMSWEB Probes
  - Dibels
  - Teacher created CBM's
  - www.interventioncentral.com

- Progress monitoring tools are NOT:
  - MCA-II's
  - NWEA-Measures of Academic Progress
 - End of unit/chapter tests

What does the progress monitoring tell us?

- Depending on the student's progress with intervention, we can determine:
    - If an intervention needs to be modified
    - If a different intervention is needed
    - If a student needs to switch to a different intervention tier
    - If a student should be referred for a special education evaluation

- Refer to p. 5-5 for table on appropriate PM practices

We Improve Achievement with Problem Solving

Evaluate the data and determine if the plan is working.

Identify gaps between performance and grade-level expectations.
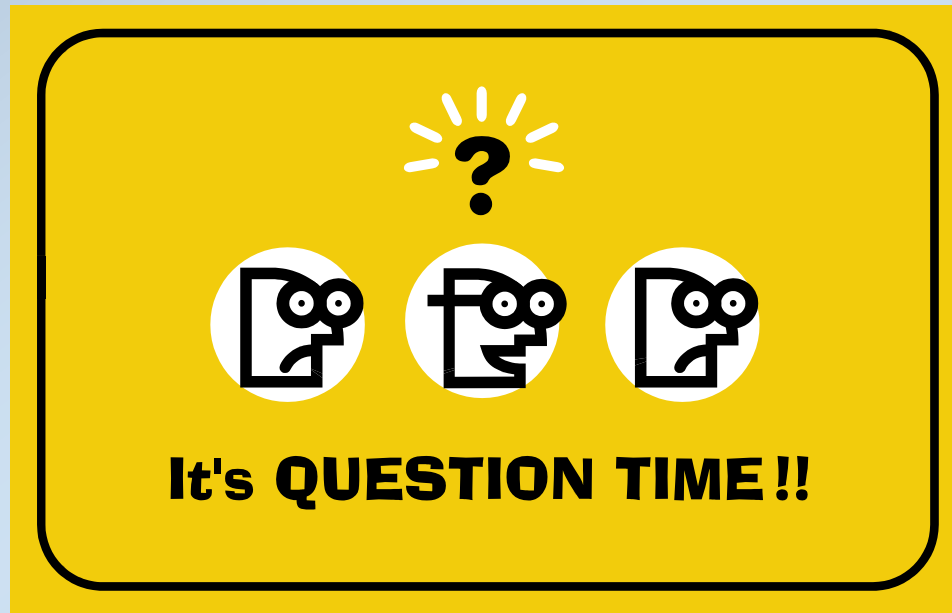
Carry out the intervention as intended.
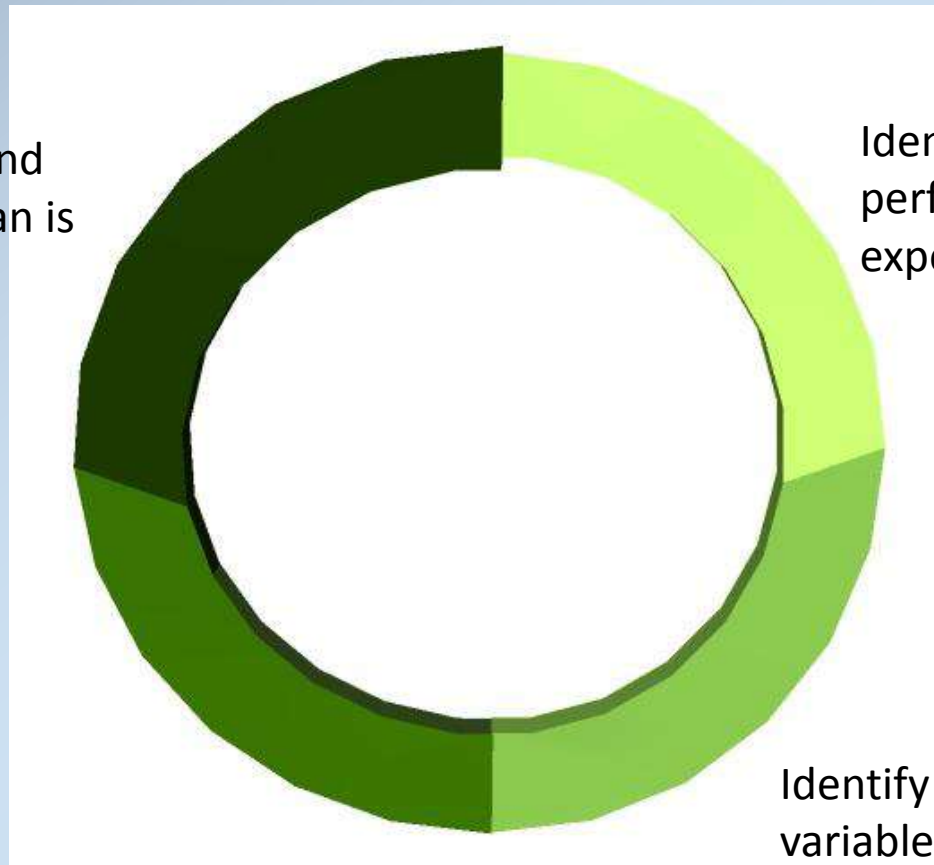
Identify the instructional variables to be included in plan to address the gap.

Chapter 4-15, 6, 8, 9, 10

Questions

It's QUESTION TIME!!

Other resources for accommodations:

- http://www.fape.org/pubs/FAPE-27.pdf

- http://www.handsandvoices.org/pdf/IEP_Checklist.pdf

- http://www.ed-center.com/accommodations

- *www.spannj.org/.../transition/**IEP**%20**accommodation**%20needs%20**checklist**%20activity.doc*

- Many others: Search IEP Accommodations Checklists on GOOGLE

- Manual can be found at:

    - http://www.cehd.umn.edu/nceo/Teleconferences/tele16/MNmanualOfAccommodationsPDF.pdf

Resources

- http://www.jimwrightonline.com/pdfdocs/brouge/rdngManual.PDF