Instructional Accommodations to Support Accessing the GSE: Understanding and Addressing Processing Deficits of SWDs

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Leigh Ann Putman
Metro RESA
Executive Director
Leighann.putman@mresa.org
Division of School Improvement

Instructional Accommodations to Support Accessing the GSE: Understanding and Addressing Processing Deficits of SWDs

Metropolitan Regional Educational Service Agency
1870 Teasley Drive, SE
Smyrna, Georgia 30080
770.432.2404 FAX: 770.432.6105
PURPOSE

Today, we will focus on awareness, urgency of need, and strategies that will assist all students in the general education classroom. Thereby, reducing the need for more intense individual support.
Today, we will discuss how the function of processing systems affect learning.

**PROCESSING SYSTEMS**

- Attention
- Memory
- Visual-Spatial
- Sequential
- Language
- Motor Function
- Higher-Order Thinking
Targets:

• Understand the characteristics of the specific disability
• Be able to recognize whether all students have access to the curriculum
First Steps

• Define the terms associated with Students With Disabilities (SWD)

• Understand the need for organization and teaching strategies that help students compensate for their learning differences

• Internalize the concept that students with disabilities can perform on/above grade and can reach their highest potential IF effective accommodations are used.
Definitions

- **Learning Disability** is an “umbrella term” which includes many disabilities: reading, spelling, oral language, math, etc.
- **Specific Learning Disability** designates a particular processing problem or problems that interfere with learning.
- **Reading Disability** or **Reading Disorder** refers to not being able to read despite normal potential.
- **Dyslexia** simply means “a reading and spelling disability.” It is a medical term and means “difficulty coping with words.”
- **Reception** refers to problems receiving information through the visual or auditory channels.
- **Perception** refers to problems in the processing of information correctly received through the visual or auditory channels.
- **Bihemispheric Input** refers to sending stimuli to both hemispheres of the brain simultaneously.
Learning Disability

- Must have normal or greater intelligence
- Includes about 20 percent to the population in the United States
- Does not mean that you are “dumb” can’t learn
- However, it does mean that you learn differently than some of your classmates
- Once you learn how you learn best and learn to compensate for these differences, you can be as successful as anyone on this planet

Have a Conversation
Walk a Mile in Their Shoes

Think – Pair – Share:

Jot down any comments that resonate with you as you listen to the video by Dr. Lavoie.

https://www.youtube.com/watch?v=Q3UNdbxk3xs

FAT CITY Workshop: Processing Deficits
PROCESSING REQUISITES FOR LEARNING

- Be able to attend / focus
- Have short-term memory
- Have working memory to “make sense” of new material
- Have long-term memory
- Be able to retrieve info
The human brain is a complicated, creative information-processing system.

**PROCESSING INFORMATION**

- Information processing starts with input from the sensory organs.
- In order for the brain to process information, it must first be stored and organized.
- Once information is processed to a degree, an attention filter decides how important the signal is and which cognitive processes it should be made available to.
- Once stored, memories eventually must be retrieved from storage.
MEMORY & LEARNING

• **Short-term memory**
  - Provides brief retention of information (20 seconds)

• **Active working memory**
  - Allows you to hold several facts or ideas in mind long enough to complete a task

• **Long-term memory**
  - Acts as a warehouse for permanent knowledge
Visual Memory

Students are unable to store and recall information which was given visually.
TEST YOUR WORKING VISUAL MEMORY
Draw or write the name of as many of the pictures as you remember from the previous slide.
TEST YOUR WORKING VISUAL MEMORY
TEST YOUR WORKING VISUAL MEMORY

Would a different organization of the visual aid your memory?
Visual Discrimination
(A Foundation Skill for Reading)

VISUAL DISCRIMINATION:

• Students have problems recognizing objects as distinct from its surrounding environment. (saw/was); (6/9)

• Closure misconceptions (i/j); (i/l); (r/n); (n/h); (e/c); (8/5)

http://eyecanlearn.com/perception/discrimination/
VISUAL FIGURE-GROUND PROBLEMS:

• Unable to focus and follow one object among backgrounds

• Skips words, miss letters in words, reads two words as one, reads same line twice, unable to track from left to right, and skips lines
Auditory Memory

Students are unable to store and recall information given verbally.

*In one ear-out the other*
Auditory Memory

• Students are unable to store and recall information given verbally.

In one ear - out the other
AUDITORY DISCRIMINATION

Students are unable to recognize differences in sounds (similar or different).

<table>
<thead>
<tr>
<th>Voiced</th>
<th>Unvoiced</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>d</td>
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<td>d</td>
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<td>s</td>
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<tr>
<td>th</td>
<td>th</td>
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</tbody>
</table>
AUDITORY
FIGURE-GROUND

Students are unable to distinguish a particular sound from the others in the background.
AUDITORY SEQUENCING

Student are unable to remember and recognize the sequence of sounds

density/destiny

animal/aminal

75/57
Significant Reading Deficits

When you see pronounce as:
- q d or t
- z m
- p b
- b p
- ys er
- a, as in bat
- e, as in pet
- a, as in bat

TRY READING THIS PASSAGE

We pegin our qrib eq a faziliar blace, a poqy like yours enq zine. Iq conqains a hunqraq qrillion calls qheq work qogaqhys py qasign. Enq wiqhin each one of qhese zany calls, each one qheq hes QNA, Qhe QNA coqe is axecqly qhe saze, a zess-broquceq rasuze.
May I go to the nurse’s office? I feel sick.

Please Read the Passage Below:
We pegin our qrib eq a faziliar blace, a poqy like yours enq zine. Lq conqains a hunqraq qrillion calls qheq work qogaqhys py qasign. Enq within each one of qhese zany calls, each one qheq hes QNA, Qhe QNA coqe is axecqly qhe saze, a zess-broquceq rasuze.
We begin our trip at a familiar place, a body like yours and mine. It contains a hundred trillion cells that work together by design. And within each one of these many cells, each one that has DNA. The DNA code is exactly the same, a mass-produced resume.
## What can a teacher do for students with learning disabilities?

<table>
<thead>
<tr>
<th>Action</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn about</td>
<td>Learn about the child and the learning disability</td>
</tr>
<tr>
<td>Use</td>
<td>Use multiple learning styles and multiple forms of communicating instructions</td>
</tr>
<tr>
<td>Avoid</td>
<td>Avoid lengthy directions</td>
</tr>
<tr>
<td>Use</td>
<td>Use strategies to help students remember</td>
</tr>
<tr>
<td>Break down</td>
<td>Break down tasks into smaller steps</td>
</tr>
<tr>
<td>Provide</td>
<td>Provide additional time for schoolwork and tests</td>
</tr>
<tr>
<td>Allow</td>
<td>Allow the student with reading problems to use textbooks on computer, Ipad or similar devices</td>
</tr>
<tr>
<td>Provide</td>
<td>Provide or allow students to record notes for listening difficulties</td>
</tr>
<tr>
<td>Allow</td>
<td>Allow student to use computers for writing (spell check, grammar, etc.)</td>
</tr>
<tr>
<td>Teach</td>
<td>Teach organizational and study skills</td>
</tr>
</tbody>
</table>
LESSON PLANNING

Provide varied instructional strategies in the lessons plans to meet the needs of all students:

<table>
<thead>
<tr>
<th>Visual</th>
<th>Vocal</th>
<th>Auditory</th>
<th>Tactile</th>
<th>Kinesthetic</th>
<th>Bihemispheric</th>
</tr>
</thead>
</table>

- Balanced Assessments
- Frequency
- Consistency
- ALWAYS provide feedback
School and Class Climate

- Routines/procedures should be established early, practiced for retention, and followed consistently.
- Set performance targets for classroom assignments and assessments.
- Re-teaching is part of daily routine
- Provide choice of assignments, tasks and activities.
- Prepare three versions of an assessment or evaluation
- Risk free environment.
- Success is a powerful motivator.
Integrating Strategies to Address Processing Deficits

Given the video, with your group discuss the following:

Using the *Accessibility Strategies for Math* document, which processing deficits were addressed in this lesson?

- Group 1: Conceptual and Language
- Group 2: Visual-Spatial and Organization
- Group 3: Memory and Attention

If a processing deficit was not addressed, what suggestions would you make for the teachers?

Watch the video below

[http://www.youtube.com/watch?v=GZKy7uWqrKk](http://www.youtube.com/watch?v=GZKy7uWqrKk)
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<table>
<thead>
<tr>
<th>Walt Disney</th>
<th>Albert Einstein</th>
<th>Hans Christian Anderson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considered Slow</td>
<td>Considered mentally slow, unsociable</td>
<td>Reading and Writing Disabilities</td>
</tr>
<tr>
<td>Agatha Christie</td>
<td>Abraham Lincoln</td>
<td>Nelson Rockefeller</td>
</tr>
<tr>
<td>Writing Disability</td>
<td>Mood Disorder</td>
<td>Learning Disability</td>
</tr>
<tr>
<td>Will Smith</td>
<td>Tiger Woods</td>
<td>Michael Jordan</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>Speech Disorder</td>
<td>Attention Deficit Disorder</td>
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Processing

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