A PRACTITIONER'S GUIDE TO ESTABLISHING EFFECTIVE RESOURCE PROGRAMS

Practical Strategies to Access the General Education Curriculum

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Leading... Learning for All

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September 2018

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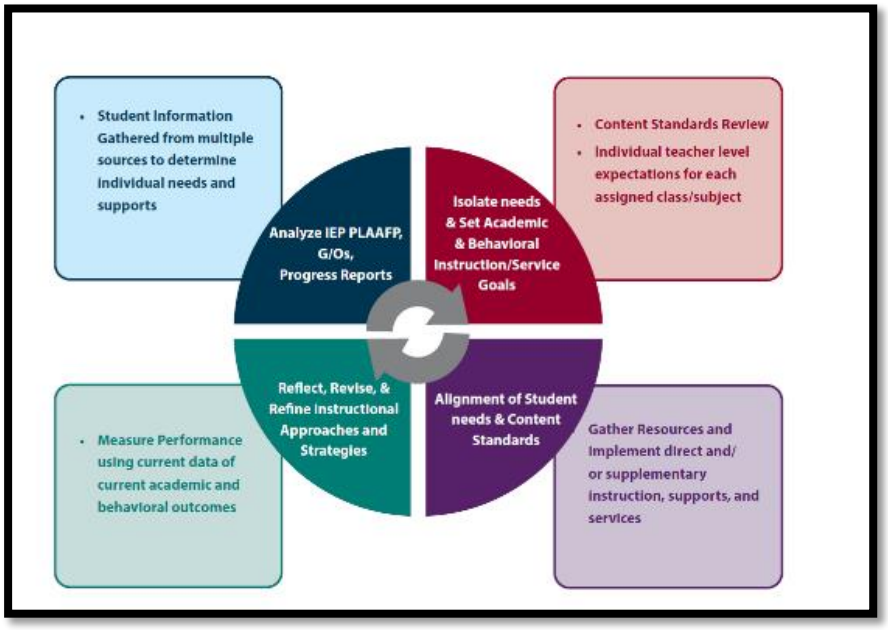
COMMON COGNITIVE STRENGTHS AND WEAKNESSES IMPACTING TEACHING AND LEARNING

In the areas of teaching and learning, special education providers must remember to not only focus on a student's specific "eligibility" in reference to providing appropriate programs, supplemental aids, services and measurable goals, but be cognizant in connecting learning styles and needs of each individual student to the curriculum itself".

----L. Vaughan-Hussain, EdS

School districts across state have students with special academic and behavioral needs that do not always result in need for special education programs and/or related services. When students are determined to be eligible for one of Michigan's thirteen special education categories, the need to support their specific learning strengths and weaknesses are crucial to deliver quality and effective instruction and supports. It is essential to determine all of the student's possible areas of need. Special education teachers that support students with special needs realize that learning deficits can affect a student's life beyond their academics, it impacts relationships with family, friends and the future workplace. Therefore, it is imperative to address all the needs of your students.



A Practitioner's Guide to Establishing Effective Resource Programs Appendices: Practical Strategies to Access the General Education Curriculum outlines some common student weaknesses that general education and special education teachers will find within their classrooms. Understanding the signs and symptoms of their student's weaknesses will focus the teacher's thought process of planning, implementing, reflecting, and adjusting instructional approaches and strategies. This text will also embed transition planning suggestions for career college readiness goals and objectives which will focus on the cognitive strength of student with special needs as determined by their psycho-educational evaluation. It is also recommended that the IEP Team, Data Teams, and the resource, categorical, and departmentalized programs review each strength and weakness as a team to determine their student's best educational plan. Planning as a team also supports the teaching and learning of ALL students. Embracing the team approach to instruction will contribute to the academic and behavioral growth for students with disabilities and their nondisabled peers.

Making the Connections between YOUR student's cognition and achievement

The IEP Team uses the information provided in the pyscho-educational evaluation to develop effective instruction. Pyscho-educational evaluations look at several sub-tests or indexes, which vary depending on the evaluation tool used, to determine a student's strengths and weaknesses. Two common evaluations used to determine cognitive functioning are the Wechsler Intelligence Scale for Children (WISC) and the Woodcock-Johnson (WJ). The WISC indexes are: Verbal Comprehension Index (Gc), Working Memory Index (Gwm), Fluid Reasoning Index (Gf), Processing Speed Index (Gs), and Visual Spatial Index (Gv). The WJ subtest are: Crystallized Intelligence (Gc), Short-term Memory (Gsm), Long-term Retrieval (Glr), Fluid Reasoning (Gf), and Processing Speed (Gs), Auditory Processing (Ga), and Visual Processing (Gv).

It is important for IEP team members to know how to use psycho-educational evaluation data when developing a student's educational plan. Each IEP Team member will need to understand what each cognitive subtest or index measures and how to use that collected data to assist in determining the appropriate direct and scaffold instruction that incorporates key strategies which supports a student's preferred learning style, strengths, and weaknesses.

1. Verbal Comprehension Index-WISC/ Crystallized Intelligence-WJ (Gc)

Verbal Comprehension Index-WISC/ Crystallized Intelligence-WJ (Gc) measures a student's ability to access and apply acquired knowledge, including basic knowledge obtained through life experiences, school and work. Specifically, the student's ability to verbalize meaningful concepts, think about verbal information, and express his or herself using words.

Students who have a strength in (Gc) likely have busy brains that snap pictures of things just like a camera does, can learn several related things at one time, and can create steps to solve a problem once they know the goal. Students who show a weakness in (Gc) may likely struggle with vocabulary acquisition, general knowledge acquisition, receptive and expressive language, fact-based informational questions, and accessing prior knowledge to make connections to new information. These students may struggle academically in Basic Reading, Reading Comprehension, Math Calculation, Math Reasoning, Written Expression, Oral Comprehension and Listening Comprehension. Their deficit may not be in all academic areas listed. These students will need interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar: These students may do well in careers such as: Drama, Politics, Writer, and Reporter.

2. Short-term Memory-WJ (Gsm)

Short-term Memory-WJ (Gsm) measures a student's ability to apprehend and hold information in one's mind and they use it within a few seconds; which includes working memory.

Students who have a strength in (Gsm) are usually able to study for a quiz or test the night before and do very well, but this information may not transfer to their Long-term Memory. There are four factors that affect Short-term memory: interest, intent, understanding and prior knowledge. Students who show a weakness in (Gsm) may likely struggle with following multistep oral or written instructions, remembering information long enough to apply it, remembering the sequence or steps of information, rote memorization and maintaining their line of thought while writing. These students may likely struggle academically in Basic Reading, Reading Comprehension, Math Calculation, Math Reasoning, Written Expression, Oral Comprehension and Listening Comprehension. Their deficit may not be in all academic areas listed. These students will need interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar: These students may do well in careers such as: Communications and Broadcasting, Education, Engineering, and Medical Fields.

3. Working Memory Index-WISC (Gwm)

Working Memory Index-WISC (Gwm) combines a student's ability to register, maintain and manipulate visual and auditory information and the use and apply the information within a few seconds. Working Memory capacity is included as a component of the Short-term Memory-WJ (Gsm) score.

Students who have a strength in (Gwm) are usually able remember and apply new information, follow spoken directions, sequence of step required for calculation of multistep problems, and remembering lists. Students who show a weakness in (Gwm) may likely struggle with following multi step oral or written instructions, remembering information long enough to apply it, copying directly from the classroom board, remembering the sequence or steps of information, rote memorization and maintaining their line of thought while writing. These students may likely struggle academically in Reading Comprehension, Math Calculation, and Math Reasoning. Their deficit may not be in all academic areas listed, but they will need intensive interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:

These students may do well in careers such as: culinary arts, accounting, business management, and administrative personnel.

4. Long-term Retrieval-WJ (Glr)

Long-term Retrieval-WJ (Glr) measures a student's ability to take and store a variety of information in one's mind, then later retrieve it quickly and easily using association.

Students who have a strength in (Glr) are usually able to remember and recall: factual information, a time or place and recall what was being taught/learned, and memories that are brought to the surface by conditional responses, emotional, and procedural memories.

Students who show a weakness in (Glr) may likely struggle with learning new concepts, performing with consistent results on recognition vs. recall tasks, retrieving information quickly, learning new information quickly, and in recalling facts. These students may likely struggle academically in Basic Reading, Reading Fluency, Math Calculation, Written Expression and Oral Comprehension. Their deficit may not be in all academic areas listed. These students will need classroom interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:

These students may do well in careers such as: Education, Engineering, Legal, and Medical fields.

5. Fluid Reasoning Index-WISC/ Fluid Reasoning-WJ (Gf)

Fluid Reasoning Index-WISC/ Fluid Reasoning-WJ (Gf) is the type of thinking a student's may use when faced with a relatively new task that cannot be performed automatically; a problem solving type of intelligence.

Students who have a strength in (Gf) are usually able to apply logic and reasoning to problem solving and novel situations, recognize challenges and make inferences and assists them in detecting underlying concepts, inductive and quantitative reasoning, visual intelligence, simultaneous processing, abstract thinking and be able to understand complex problem solving tasks.

Students who show a weakness in (Gf) may likely struggle with higher level thinking and reasoning, transferring or generalizing information, applying rules of problem solving, critical thinking, and extending knowledge through critical thinking. These students may likely struggle academically in Reading Comprehension, Math Reasoning and Written Expression. Their deficit may not be in all academic areas listed, but will need classroom interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:
These students may do well in careers such as: Judges, Surgeons, Lawyers, and Executives roles.

6. Processing Speed Index-WISC/ Processing Speed-WJ (Gs)

Processing Speed Index-WISC/ Processing Speed -WJ (Gs) is the type of thinking a student's may use when faced with a relatively new task that cannot be performed automatically; a problem solving type of intelligence.

Students who have a strength in (Gs) are usually able to efficiently to scan and understand visual information and complete a task with the data, developing automaticity with academic skills, and can quickly identify visual information and make quick and accurate decisions.

Students who show a weakness in (Gs) may likely struggle with efficiently processing information, quickly determining similarities and differences between stimuli and information, working within a given time frame, may take a long time to respond to a teacher's question in order to provide an answer and may have difficulties completing simple rote tasks quickly. These students may likely struggle academically in Basic Reading, Reading Fluency, Math Calculation and Written Expression. Their deficit may not be in all academic areas listed, but will need classroom interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:

These students may do well in careers such as: manufacturing and agricultural professions.

7. Auditory Processing-WJ (Ga)

Auditory Processing-WJ (Ga) measures a student's ability to perceive, analyze, and synthesize patterns among auditory stimuli (sounds) and to discriminate subtle nuances in patterns of sounds and speech when presented under distortion conditions.

Students who have a strength in (Ga) are usually able to hear something and retain what was heard, have a good memory, a large vocabulary, communicate effectively with teachers and peers, and have an aptitude for learning foreign languages.

Students who show a weakness in (Ga) may likely struggle with hearing and processing oral information, paying attention when there is additional background noise, being able to locate which direction the auditory information is coming from, discriminating between simple sounds, and acquiring a foreign language. These students may likely struggle academically in Basic Reading, Written Expression, and Listening Comprehension. Their deficit may not be in all academic areas listed. These students will need interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:

These students may do well in careers such as: musician and music/drama teachers.

8. Visual Spatial Index-WISC/ Visual Processing-WJ (Gv)

Visual Spatial Index-WISC/ Visual Processing-WJ (Gv) processing is the ability to observe and reason with visual patterns and other simulated mental imagery to solve problems. It includes the ability to recognize and remember objects.

Students who have a strength in (Gv) may demonstrate the ability to recognize and remember complex patterns, mentally simulate how objects may look when transformed (rotated, changed in size, etc), and complete an object with missing or obscured areas or identify it quickly within a matrix or disguising visual pattern. Students will likely be able to quickly perceive, identify, and remember the shape and form of letters and numbers as well as tangible items in the academic environment.

Students who show a weakness in (Gv) may likely struggle with recognizing patterns, reading map, graphs and charts, attending to fine visual detail, recalling visual information, determining spatial characteristic of objects, and recognizing the orientation of objects. These students may likely struggle academically in Basic Reading, Math Calculation, and Math Reasoning. Their deficit may not be in all academic areas listed. These students will need classroom interventions and accommodations to successfully access the general education curriculum.

Transition Planning Sidebar:

These students will do well in careers such as: trades fields such as, plumber, electrician, mechanic, and engineering.

INSTRUCTIONAL INTERVENTIONS AND STRATEGIES THAT SUPPORT ACADEMIC ACHIEVEMENT

Student academic and behavioral achievement is a hot topic for today's federal, state, and local policymakers and educational stakeholders. Current high-stake accountability requirements that are enforced by policies such as Every Student Success Act (ESSA) and Michigan's 3rd grade reading mandate beams additional light on the performance of classroom teachers. As a result of these high-stake measurements, today's educators have the added responsibility of demonstrating student progress and growth or they are subject to being identified as ineffective on teacher evaluations. This added pressure is a motivation for educators to receive a better understanding about how students with learning difficulties learn best.

The intent of this section is to provide special and general educators a blueprint to better understand common learning and behavioral difficulties that many students' with/without disabilities exhibit. This blueprint will provide instructional interventions and strategies, while serving as a tool for ensuring that all students have a fair, equal, and significant opportunity to obtain a high-quality education that meet the individual needs of each of learner. Ensuring, a teacher's awareness of the cognitive and behavioral needs of their students and addressing those needs through instructional intervention, enables them to optimize student's potential in higher levels of proficiency on individualized IEP goals, objectives, classroom academic expectations, and state and local standards and assessments.

Reading Difficulties

Of all students with specific learning disabilities that one may encounter, 70-80% have weaknesses in reading. It is important to note that not all reading difficulties are created equal, and that this can have major implications for determining appropriate reading interventions and strategies. A reading disorder can affect any part of the reading process including difficulty with accurate and/or fluent word recognition, word decoding, reading fluency, prosody (oral reading with expression), and reading comprehension. The term "Dyslexia" is used interchangeably with Reading Disorder and is frequently the preferred term used in medical settings. In educational settings, the term Specific Learning Disability in Reading is preferred, as it complies with State and Federal law and places emphasis on the importance of educational interventions to address such deficits. It is also important to note that classroom teachers may at times hear clinical terms such as, Dysphonetic (auditory dyslexia) and Dyseidetic (visual dyslexia), which are words used to describe types of dyslexia. Dysphonetic dyslexia, also called auditory dyslexia or language-based learning disability, refers to a difficulty connecting sounds to symbols. The student might have a hard time sounding out words, and spelling mistakes often show a very poor grasp of phonics. The severity can differ in each individual and can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech, and can exist along with other related disorders.

In addition to defining reading difficulties and its impact on teaching and learning, as of September 2017, the state of Michigan adopted a mandate that ensures reading success and progress for elementary-age students. This mandate applies to all students in grades K-3, including students with disabilities and English Learners. MCL 380.1280f, or better known as The "Third Grade Reading Law," requires students to pass the 3rd Grade ELA state summative assessment in order to pass third grade or be subject to retention. According to this newly established mandate, teachers must support their students with demonstrating development in the following five major reading components: **Reading Fluency, Phonics, Phonemic Awareness, Vocabulary, and Comprehension.**

Reading Fluency

Reading fluency is the ability to read a text accurately, quickly, and with expression. Fluency is important because it provides a bridge between word recognition and comprehension. When fluent readers read silently, they recognize words automatically. They group words quickly to help them gain meaning from what they read. Fluent readers read aloud effortlessly and with expression. Their reading sounds natural, as if they are speaking. Readers who have not yet developed fluency read slowly, word by word. Their oral reading is choppy.

Classroom Teacher Indicators

- Sound out words, but very slowly
- Frequently guesses words
- Difficulty sounding out words
- Don't recognize familiar sight words
- Sound stiff and without expression
- Insert words, omit words, misread small words
- Avoidance of participating in reading activities

Classroom Interventions and Strategies

- Model fluent reading to students. Students with reading difficulties need to hear how fluent reading sounds. Teachers may need to use techniques such as read aloud, audio/digital books, and buddy reading with a fluent reader to support the development of fluency.
- Fluency strategies for emergent readers should include sight word lists such as Dolch or Fry. These lists are divided by reading and grade levels.
- Target fluency by tracking a student's words per minute progress. Use short, timed reading passages from one to several paragraphs long to collect data for measuring growth. Tracking student's words per minute (wpm) builds enthusiasm in the student.
- Building words per minute fluency, helps students build overall comprehension as they are not spending all of their time decoding words.
- Use small group guided reading instruction facilitated by the teacher. This instruction may begin at the student's individual reading level with the focus of progressing toward grade level expectations.

- Students benefit from participating in multiple reading opportunities to practice fluency. This can be accomplished by independent reading, reader's theater, oral recitation, or performing in front of others which helps students learn prosody.

Phonological Awareness

Phonological Awareness is comprised of two components; phonics and phonemic awareness. Phonics is the understanding of letters and their sounds, and how to use those sounds to decode words. Phonemic awareness is the ability to blend sounds, recognize, manipulate and segment individual word chunks and sounds while reading.

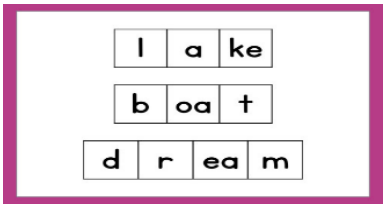
Classroom Teacher Indicators:

- ➢ has difficulty determining vowel sounds
- ➢ omission of initial or final sounds in words
- ➢ difficulty rhyming words
- ➢ difficulty substituting sounds in new words with similar patterns
- ➢ limited understanding of letter sounds, prefixes and suffixes

Classroom Intervention and Strategies:

- Explicitly teach phonics starting with individual letter sounds, then moving to short words with patterns (i.e. CVC-consonant, vowel, consonant; CVCe-consonant, vowel, consonant, silent e)
- Teach and practice various blends (i.e: gr, br, bl, tr, cl), digraphs (examples: ch, sh, th, wh) and dipthongs (i.e: oy/oi, oo, ow as in snow)
- Teach and practice both short and long vowel patterns
- Practice saying, reading and writing rhyming word pairs
- Use of manipulatives to build words (letter tiles, magnetic letters, or linking blocks) to show how many letters are in a word
- Use of Elkonin boxes to visually show students how many sounds are in a word.
- Build banks of word families to show rhyming and related words, such as words that rhyme with at, or end with -op
- Practice vowel substitution (example: "If I make the word cat, and change the "a" to an "o", what new word do I have?"

- Practice beginning and ending sounds substitution: (example: “If I make the word take, and change the “t” to “sh”, what new word do I have?” [shake] “What new word would I have if I started with the word pin and added “ch” to the end?” [pinch])
- Encourage students to tap out unknown words with their fingers as they say the sounds
- Teach word chunking as a specific reading strategy as they build an understanding of letter sounds and word chunks



Elkonin Box

Vocabulary

Vocabulary is defined as the body of words used in a particular language. It can also be a list of difficult or unfamiliar words related to an area with their accompanying definitions. Educationally, it is the knowledge and usage of words. Students have oral vocabularies that are larger than their reading vocabularies. They understand more words than they are able to read.

Classroom Teacher Indicators:

- ➢ Difficulties with word recognition
- ➢ Students may insert familiar words when reading unfamiliar words, also known as word substitution
- ➢ Students may have difficulty learning and using newly taught vocabulary as quickly as their peers
- ➢ Difficulty remembering words read previously
- ➢ Difficulty choosing words in context
- ➢ Difficulty decoding words

Classroom Interventions and Strategies:

- Specifically teach synonyms and antonyms of given vocabulary in a lesson, such as hot is a synonym for the word scorching and cold would be the antonym.
- Use word lists, charts, or word walls to organize new vocabulary or to sort them by content area
- Teach the use of context clues to determine unknown words (using other words in the sentence or surrounding sentences that may give clues to the unknown word)
- Teach dictionary skills (book and internet) to determine definitions of unknown words
- Give the student the sentence with the vocabulary word to have them determine the meaning
- Have students draw their own visual representations of new words they learn in a notebook (nonlinguistic representation)
- Use example sentences or "word of the day" to introduce new vocabulary
- Give students vocabulary words to create their own sentences

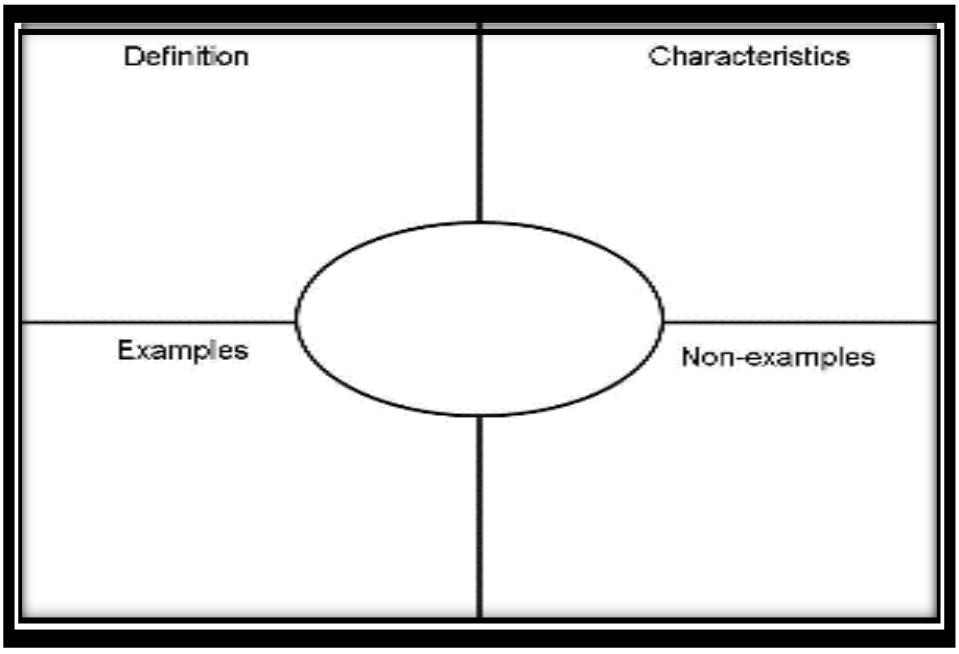


Image: Sample Vocabulary Instruction Map:

Reading Comprehension

Reading comprehension is the ultimate goal when teaching students to read. After all, when a student struggles with comprehension, reading can be a miserable task. Reading Comprehension requires the reader to be an active constructor of meaning. Reading research has demonstrated that readers do not simply "perceive" the meaning that is **IN** a text. In fact, expert readers co-construct meaning **WITH** a text. It's clear that reading comprehension is a complex cognitive process that depends upon a number of key ingredients all working together in a synchronous, even automatic way. According to National Center for Learning Disabilities current research on skills needed to be an efficient reader, the reader must be intentional and thoughtful while reading, monitoring the words and their meaning as reading progresses. In addition, the reader must apply reading comprehension strategies as ways to be sure that what is being read matches their expectations and builds on their growing body of knowledge that is being stored for immediate or future reference. A student who has learned effective reading skills, has learned to visualize, question, and interpret what they are reading as they read, and they can think about their own feelings and opinions while navigating text.

There are some prerequisites for good reading comprehension (which will be discussed later in this section). If any prerequisite skill is lacking, comprehension will be lacking as well. It is imperative for all teachers, regardless of the content they teach, will need to be watchful of the following indicators when suspecting that a student may be experiences difficulties comprehending the text.

Classroom Teacher Indicators

- Have difficulty understanding the important ideas in reading passages.
- Difficulty with basic reading skills such as word recognition.
- May read aloud with little difficulty but do not understand or remember what they've read.
- Their phrasing and fluency are often weak.
- They frequently avoid reading and are frustrated with reading tasks in school.
- Naturally, reading comprehension problems may affect all content core academic areas.

General Reading Comprehension Strategies

- Activate prior knowledge, and connect the applicable prior experiences to the reading (if students don't have the requisite background knowledge about a topic, they will be unable to comprehend)
- Set Purposes Predict Decode Text — identify word and sentence meanings
- Summarize — bring meaning forward throughout the reading, building on prior information to create new and fuller meanings
- Visualize — see characters, settings, situations, ideas, mental models
- Question Monitor understanding — the most salient difference between good and poor readers is that good readers know when — and often why — they are not comprehending
- Use of sticky notes and highlighters during reading for notes to help organize thoughts
- Use Clarifying and Corrective strategies where needed
- Reflect on and Apply the meaning that has been made to new situations

Students will need to learn how to monitor their comprehension

Students who are good at monitoring their comprehension know when they understand what they read and when they do not. They have strategies to "fix" problems in their understanding as the problems arise. Research shows that instruction, even in the early grades, can help students become better at monitoring their comprehension.

Comprehension monitoring instruction teaches students to:

- Be aware of what they do understand
- Identify what they do not understand
- Use appropriate strategies to resolve problems in comprehension

Students will need Metacognition skills

Metacognition can be defined as "thinking about thinking." Good readers use metacognitive strategies to think about and have control over their reading. Before reading, they might clarify their purpose for reading and preview the text. During reading, they might monitor their understanding, adjusting their reading speed to fit the difficulty of the text and "fixing" any comprehension problems they have. After reading, they check their understanding of what they read.

Students may use several comprehension monitoring strategies:

1. Identify where the difficulty occurs
- "I don't understand the second paragraph on page 76."
- Identify what the difficulty is
- "I don't get what the author means when she says, 'Arriving in America was a milestone in my grandmother's life.'"
2. Restate the difficult sentence or passage in their own words
- "Oh, so the author means that coming to America was a very important event in her grandmother's life."
3. Look back through the text
- "The author talked about Mr. McBride in Chapter 2, but I don't remember much about him. Maybe if I reread that chapter, I can figure out why he's acting this way now."
4. Look forward in the text for information that might help them to resolve the difficulty
- "The text says, 'The groundwater may form a stream or pond or create a wetland. People can also bring groundwater to the surface.' Hmm, I don't understand how people can do that… Oh, the next section is called 'Wells.' I'll read this section to see if it tells how they do it."

Students may benefit from graphic and semantic organizers

Graphic organizers illustrate concepts and relationships between concepts in a text or using diagrams. Graphic organizers are known by different names, such as maps, webs, graphs, charts, frames, or clusters. Regardless of the label, graphic organizers can help readers focus on concepts and how they are related to other concepts. Graphic organizers help students read and understand textbooks and picture books.

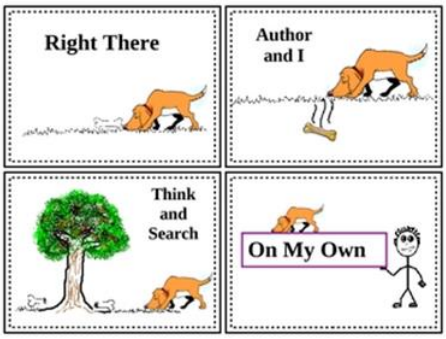
Graphic organizers can:

- Help students focus on text structure "differences between fiction and nonfiction" as they read
- Provide students with tools they can use to examine and show relationships in a text
- Help students write well-organized summaries of a text

Students will need to understanding the importance of asking questions prior to reading and answering questions after reading: Teach students that questioning can be effective because they…

- Give students a purpose for reading
- Focus students' attention on what they are to learn
- Help students to think actively as they read
- Encourage students to monitor their comprehension
- Help students to review content and relate what they have learned to what they already know

The Question-Answer Relationship strategy (QAR) encourages students to learn how to answer questions better. Students are asked to indicate whether the information they used to answer questions about the text was textually explicit information (information that was directly stated in the text), textually implicit information (information that was implied in the text), or information entirely from the student's own background knowledge.



There are four different types of questions:

"Right There"

- Questions found right in the text that ask students to find the one right answer located in one place as a word or a sentence in the passage.
- **Example:** Who is Frog's friend? Answer: Toad

Think and Search"

- Questions based on the recall of facts that can be found directly in the text. Answers are typically found in more than one place, thus requiring students to "think" and "search" through the passage to find the answer.
- **Example:** Why was Frog sad? Answer: His friend was leaving.

"Author and I"

- Questions require students to use what they already know with what they have learned from reading the text. Student's must understand the text and relate it to their prior knowledge before answering the question.
- **Example:** How do think Frog felt when he found Toad? Answer: I think that Frog felt happy because he had not seen Toad in a long time. I feel happy when I get to see my friend who lives far away.

"On My Own"

- Questions are answered based on a student's prior knowledge and experiences. Reading the text may not be helpful to them when answering this type of question.
- **Example:** How would you feel if your best friend moved away? Answer: I would feel very sad if my best friend moved away because I would miss her.

5. Recognizing story structure: In story structure instruction, students learn to identify the categories of content (characters, setting, events, problem, and resolution). Often, students learn to recognize story structure through the use of story maps. Instruction in story structure improves students' comprehension.

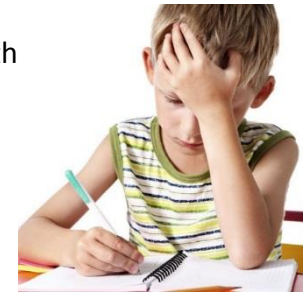
6. Summarizing: Summarizing requires students to determine what is important in what they are reading and to put it into their own words. Instruction in summarizing helps students:

- Identify or generate main ideas
- Connect the main or central ideas
- Eliminate unnecessary information
- Remember what they read

WRITTEN LANGUAGE DIFFICULTIES

Written language difficulties can involve any of the five language domains (i.e., phonology, morphology, syntax, semantics, and pragmatics). Problems can occur in the comprehension, and production of written language. Students displaying written language difficulties may include weaknesses in handwriting, spelling, organization of ideas, and composition. Problems may include inconsistent spacing, poor spatial planning on paper, and difficulty composing writing as well as thinking and writing at the same time.

In addition to writing difficulties, these students may also have weakness in the areas of oral expression, reading and reading comprehension, cognitive processing disorders, hand eye coordination, attention difficulties, and even visual/spatial deficits. This makes pinpointing the root issue very difficult. For example, the student may present with difficulties in writing, however, the main issue may be affiliated with expressive language.



Written Expression

Students with written expression difficulties experience challenges in acquiring fluent writing skills. They struggle often to generate ideas in order to construct meaningful sentences, paragraphs and various types of essays. They also find it very difficult to organize their thoughts appropriately. Writing draws on knowledge of the topic, finding the right words to express thoughts, and the ability to evaluate one's own work. Teachers are encouraged to integrate many cognitive and social teaching strategies and processes to ensure students are prepared to take on the task to ensure success.

Classroom Teacher Indicators

- Starting writing is difficult and student will sit without writing anything (can look defiant)
- Sentences that do not seem to make sense or are illogically sequenced
- Paragraphs and stories that are illogically sequenced or are missing important points
- Difficulty writing words from memory or dictating words.
- Trouble with thinking and writing at the same time
- Writing is legible but student has difficulty organizing thoughts into logical sequences to complete a meaningful sentence, paragraph or story
- Poor writing skills that significantly impact academic achievement or a student's daily living
- Stories or sentences that are out of sequence or jump around a topic

Classroom Interventions & Strategies

- For non-writers, use sentence completion activities
- Give the student a short sentence or take one from their writing and have them add words to it to make a longer sentence
- Supply or orally develop a word bank for the writing topic
- Teach mini lessons, give students independent writing time and come back together to review and ask questions. This can also be a time to share with an audience.
- Have many different types of paper (lined, unlined, large rule, raised line, color coded stop and go paper, blank books, shape books, etc.) and different writing utensils (pencils of all widths, pens, felt tip markers, crayons, colored pencils, etc.) to encourage writing

- Write meaningfully every day as a model for the students, starting with writing that only require a few sentences (greeting cards, notes, captions, comics, posters, slogans, etc.)
- Writing activities that combine two simple sentences
- Provide prompts for those that cannot think of what to write
- Have students discuss their ideas before writing them. This could be done one on one or in cooperative groups.
- When doing board work, consider giving the student a copy at their desk so they do not have to keep looking up and down from board to paper.
- Use picture books as models of particular types of writing
- Use visuals as models for particular skills in writing. Toying With Writing: Mini Lessons for a Kids World, by Nancy Herta, is a great book to use which helps students have a visual model for the skill. The students relate to the toys which helps them to remember that skill.
- Give students feedback on their writing on a consistent basis
- Use comics to get kids started on writing
- Use three story boards to teach beginning, middle and end of a story. (This can be used with the very young and they can draw the beginning, middle and end of their story and the teacher can scribe their words for them after they are finished.) Modeling this technique as a group is a great way to start the activity.
- Work on Fluency by doing "Just Writes". This is a technique where everyone puts everything to the side and writes for a noted amount of time. This is not graded but can and should be shared with the teacher.
- Have students work collaboratively with peers to come up with supporting ideas.
- Use lots of visual aids to brainstorm and organize thoughts
- Make sure to work on one writing element at a time.
- Give students exemplary models & rubrics so they know the expectations (complete sentence tool, visual paragraph organizer, paragraph check, editing checklist, or publication checklist)
- Teach vocabulary by using vocabulary attribute charts (one example: What the word looks like, unusual uses, usual uses, and synonyms)
- Alternative testing arrangements such as extra time; a less distracting environment;
- READ! READ! READ! with your students. Oral language comes before written language and the more exposure the students have to good writing, the better.
- Write across the curriculum.

Basic Writing Skills (Spelling, Vocabulary, Grammar, Punctuation, and Capitalization)

Spelling, vocabulary and grammar are important because they aid others in understanding exactly what the author wants to convey. Students who have difficulty in these areas often dislike writing because they feel that they must stop and correct issues as they are writing. It is important for teachers to help them to understand that they should first get their thoughts and ideas on paper and then concentrate on these skills during the editing process. As educators, we need to make sure that we are teaching them how to use a dictionary and thesaurus but we also need to teach them how to correctly use the digital tools (spell check, thesaurus, word prediction, editing functions, etc.). Show them the advantages of understanding the rules and conventions of grammar and spelling because the computer does not consistently revise the text in the way the author means for it to be written.

Classroom Teacher Indicators

- Difficulty remembering spelling conventions or does not understand sound symbol relationships.
- Writing in phrases or fragments
- Spells with only consonants
- Excludes parts of words
- Spelling conventions (silent e, words ending with y, consonant ending rules for adding -ed and -ing) are not used or used incorrectly
- Writes with run on sentences
- Lack of or excessive use of capitalization at the beginning of sentences or for pronouns
- Switches tenses or using them improperly in their writing (improper conjugation of verbs)
- Uses the same words repetitively in sentences
- Substitutes simple words for words with the same meaning that are more complex
- Has difficulty finding the “right” word
- Does not use prefixes, suffixes or plurals correctly
- Writing lacks description, reader is not able to visualize when reading
- Has much more difficulty with spelling than with reading

Classroom Interventions & Strategies

- Teach the students not to worry about spelling at first. Teach them to get their thoughts on paper
- Let younger students draw pictures within their sentences for words they do not know how to spell
- Assess and practice visual closure, visual memory, visual sequencing and sound symbol activities for non-spellers
- Assess and practice auditory discrimination, auditory blending and auditory association (matching letters, words & word parts) activities for non-spellers
- Give students an editing checklist
- Have a word wall to assist in spelling
- Consider visual cues and the use of color or shape of the word to show conventions and encourage sight learning when teaching spelling
- Use individual spelling books (similar to a word wall but they can customize it for words that are difficult for them)
- Have word family charts posted, as well as charts for spelling conventions
- Give chart for writing sentences (A chart which is broken into columns with the following headings: Which, Who or What, Does or Did, What or Whom, Where)
- Give students a tool for writing paragraphs (paragraph caterpillar, paragraph organizer) which breaks down the parts of the paragraph and has a symbol or visual to remind them of each part.
- Daily oral language activities
- Build vocabulary by teaching suffixes and prefixes
- Teach synonyms and antonyms
- Teach students to use a thesaurus, teach online thesaurus tools, and teach them how to use dictionary definitions to find synonyms (because not all students have a thesaurus at home.)
- Teach dictionary skills, explain how to use spell check and word prediction tools
- Teach root words
- Teach grammar rules directly and then in meaningful content so that it is memorable for the student. A good way to do this is within meaningful group writing. Plan to write the sentence incorrectly and reread it incorrectly, then correct the sentence together. (Another way to do this is by modeling as you first write the sentence and verbally state what you are thinking.)

Handwriting (Dysgraphia)

Dysgraphia is a condition that causes trouble with written expression. The term comes from the Greek words *dys* ("impaired") and *graphia* ("making letter forms by hand"). Dysgraphia is a brain-based issue and not the result of a child being lazy.

For many children with dysgraphia, just holding a pencil and organizing letters on a line is difficult. Their handwriting tends to be messy. Many struggle with spelling and putting thoughts on paper. These and other writing tasks—like putting ideas into language that is organized, stored and then retrieved from memory—may all add to struggles with written expression.

There's no cure or easy fix for dysgraphia. Yet there are strategies and therapies that can help a child improve his writing. This will help him thrive in school and anywhere else that expressing himself in writing is relative.

Classroom Teacher Indicators

- May have illegible printing and cursive writing (despite appropriate time and attention given the task)
- Shows inconsistencies: mixtures of print and cursive, upper and lower case, or irregular sizes, shapes or slant of letters
- Has unfinished words or letters, omitted words
- Illegible handwriting because of poorly formed letters, numbers and/or spacing.
- Poor spatial planning on paper (runs out of room, writes up the margins, writes from left to right, writes too big and has hyphenate many words due to size of writing, spacing concerns between letters and words, etc.)
- Exhibits strange wrist, body or paper position
- Has difficulty pre-visualizing letter formation
- Copying or writing is slow or labored
- Has cramped or unusual grip (may complain of sore hand/hands fatigue quickly)
- Has great difficulty thinking and writing at the same time (taking notes, creative writing)

Classroom Interventions & Strategies

- Informally assess visual motor and fine motor skills
- Practice fine motor exercises to build hand and wrist strength
- Stabilize paper with tape for students who have difficult holding the paper still on their own
- Make sure the paper is positioned correctly for both right and left handed students
- Model handwriting letters and numbers and think aloud as you say where to start the letter, how to form the letter and where to end the letter

- Use double spacing when writing so editing does not get confusing
- Suggest use of word processor
- Avoid chastising student for sloppy or careless work
- Allow for student to respond to exams or assignments orally if writing is not being assessed
- Allow use of a tape recorder for lectures
- Allow the use of a note taker
- Provide notes or outlines to reduce the amount of writing required
- Elevate the material on the desk if student is having difficulty reading or copying the assignment.
- Reduce copying aspects of work (pre-printed math problems)
- Provide alternatives to written assignments (video-taped reports or audio-taped reports)
- Practice correct pencil grip with and without commercial pencil grippers
- Have the student record his/ her answers before writing them down
- Letter and word formation drills: use all kinds of medium (whipped cream, shaving cream, sand, pudding, chalk, markers, felt tips, crayons, spray bottles, etc.)
- Use computer programs for handwriting which teach students where to start and stop
- Use putty to strengthen hand, finger and wrist strength

ACCOMODATIONS FOR STUDENTS WITH WRITING DIFFICULTIES

- Alternative testing arrangements such as extra time; a less distracting environment; provision of a reader/scribe and use of a computer, including adaptive software and hardware
- Note taking support
- Alternative demonstrations of learning, such as oral (as opposed to written) completion of assignments and exams.
- Text to speech Software
- Visual mapping Software
- Transcription of audio recordings to text
- Proofreading, word prediction and word completion software
- Allow student to use a word processor (with spell checker and word completion) for written assignments, including note taking and classroom assignments.
- Allow students to record lectures.
- Scribe for the student when writing is not being graded
- Suggest use of word processor
- Avoid chastising student for sloppy or careless work
- Allow students to respond oral to tests or assignments where writing is not being assessed
- Allow use of tape recorder for lectures
- Allow the use of a note taker
- Provide notes or outlines to reduce the amount of writing required
- Reduce copying aspects of work (pre-printed math problems)
- Allow use of wide rule paper, graph paper and specialized spacing paper
- Suggest use of pencil grips and/or specially designed writing aids such as erasable pens, weighted pens and pencils, spacing paper, gridded poster board, etc.
- Provide alternatives to written assignments (video-taped reports or audio-taped reports)
- Do not require neatness as part of the grade for these students
- Slant board may be helpful for wrist and arm support

MATH DIFFICULTIES

Math skills are often cumulative in nature, one skill building upon previously learned skills. Algebraic manipulation, for example, would be impossible without an understanding of basic arithmetic. In order for students to do well in math, other skills such as vocabulary development, working memory, and the ability to visualize concepts must be incorporated. Math difficulties may present themselves in the areas of Math Calculation and Math Reasoning.

Math Calculation

A Math Calculation difficulty generally refers to deficits in the ability to count and to perform basic mathematical operations. According to CHC factors, students that demonstrate difficulties in calculation can be traced to having issues with the Math Fluency. Math Fluency is characterized by having problems with retrieving math facts, and when retrieved, there is a high error rate.

Classroom Teacher Indicators - Math Calculation Difficulties

- Counting errors
- Counting strategies that appear developmentally younger than the student's age (i.e. using fingers for counting and drawing stick figures)
- Difficulty with basic math facts using all four operations
- Difficulty with visual tasks using story problems
- Student doesn't recall math facts automatically
- Misaligning numbers when copying problems from a chalkboard or textbook
- Ignoring decimal points that appear in math problems
- Forgetting the steps involved in solving various calculations (i.e. one and two step equations)

Classroom Interventions and Strategies for Math Calculation

- Model math computations through explicit instruction that simplifies the steps of algorithms
- During instruction and independent practice, make frequent use of visual aids/references, such as anchor charts, interactive notebooks, math graphic organizers, diagrams and drawings of math concepts
- Activities to improve memory of numbers, ordering, and procedures (i.e. PEMDAS and SOHCAHTOA; songs and rhymes)
- Speeded recall trials (i.e. flash cards)
- Work with manipulative learning tools
- Practice applications of calculations to real world situations. For example, to practice manipulating integers, have students work on problems where they are figuring out the change in temperature on a thermometer.
- Even with allowing students to use calculators for support, the teacher must continue to teach the rules of calculations, so instructional supports for reasoning and application of rules must be continuously applied.
- Allow use of fingers, scratch paper, and manipulatives to scaffold instruction for students.
- Allow the usage of various problem-solving strategies to master computation such as number lines or lattice methods.
- Allow the use of basic facts charts
- Allow the opportunity for peer-to- peer assistance

- Allow the use of graph paper to support aligning numbers for understanding of number placement.
- Allow the use of colored pencils to differentiate steps to solve problems
- Allow students to draw pictures of word problems for visualization to aid in comprehension.
- Embed technology time for drill and practice to improve basic math skills.
- Incorporate math games to provide students with additional practice using the four basic operations

Math Reasoning

Mathematical reasoning is the critical skill that enables a student to make use of all other mathematical abilities. With the development of mathematical reasoning, students recognize that mathematics makes sense and can be understood. They learn how to evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions, and recognize how those solutions can be applied. Students with a learning difficulty in math reasoning have problems with solving math problems that involve using math computation to solve real world problems. According to the CHC factors, Procedural Math Difficulty is a subtype of math reasoning, which is characterized by the student's relatively frequent use of immature procedures with frequent errors in the execution of those procedures.

Classroom Teacher Indicators - Math Reasoning Difficulties

Math reasoning difficulties in students can fall under three categories: knowledge transfer, the language of math, and spatial organization.

Knowledge Transfer

One fairly common struggle experienced by students with math difficulties is the inability to easily connect the abstract or conceptual aspects of math with reality. Understanding what symbols represent in the physical world is important to how well and how easily a student will remember a concept. A student with a deficiency in this skill may:

- not be able to distinguish between what is important in a math problem and what is not, particularly in word problems that include irrelevant information
- be unable to recognize the appropriateness or reasonableness of solutions generated

- find it difficult to switch between multiple demands in a complex math problem
- have difficulty interpreting and manipulating geometric configurations
- find it difficult to tell when tasks can be grouped or merged and when they must be separated in a multi-step math problem

The Language of Math

For some students, math difficulties are driven by problems with language. These students may also experience difficulty with reading, writing, and speaking. In math, however, their language problem is compounded by the inherently difficult terminology, some of which they never hear outside of the math classroom. These students find word problems especially difficult to translate, as they have difficulty understanding written or verbal directions or explanations. A student with a deficiency in this skill may:

- be confused by language in word problems
- have trouble learning or recalling specialized terms
- have difficulty understanding directions
- be unable to explain their confusion about math concepts and procedures
- have difficulty reading texts to direct their own learning
- have difficulty remembering assigned values or definitions in specific problems

Spatial Organization

This problem is similar to, but more severe than, knowledge-transfer problems. In general, it is an inability to effectively visualize math concepts. Students who have this problem may, for example, be unable to judge the relative size among three dissimilar objects. This disorder requires that a student rely almost entirely on rote memorization of verbal or written descriptions of math concepts that most people take for granted. A student with a deficiency in this skill may:

- have difficulty laying out problems in a neat and organized manner
- be unable to describe what a three-dimensional object would look like if the object is rotated and viewed from a different angle

- be unable to comprehend what quantities and mathematical formulas represent in the real world

Math Reasoning Strategies

- Focus on developing students' math vocabulary via flashcards, word walls, requiring students to use appropriate math terms during classroom conversations.
- Require students to explain the steps they used to arrive to their answer (verbally or in writing with peers and individually)
- Present instruction using think-alouds to help students internalize math concepts
- Use Socratic questioning to help students practice applying and explaining math concepts
- Scaffold instruction so that students become more independent (i.e, chunk math problems based on similar operations, use math graphic organizers)
- Provide direct instruction of math facts, algorithms, and formulas
- Incorporate activities that emphasize inferential reasoning
- Give instruction that provides concrete experience with concepts of properties and relationships that apply to mathematical solutions
- Rehearse math procedures and steps in a whole group or small group setting
- Compensatory strategies adhering to multi-step and sequential directions, such as allowing the use of math graphic organizers

What is Dyscalculia?

Dyscalculia is a medically oriented word that describes a severe disability in learning and using mathematics. It is described as a specific disturbance in learning mathematical concepts and computation associated with a central nervous system dysfunction (Rourke & Conway, 1997). *In education, this term is often used interchangeably with math learning disability, however, not all students who have difficulties in math have Dyscalculia.*

Information-Processing Difficulties

According to Rourke and Conway, many elements of information processing are linked to math disabilities such as ***Paying attention, visual-spatial processing, auditory processing, memory & retrieval and motor problems.***

Information Processing Factors	*How it Affects Math Performance*
Attention	❑ Difficulty maintaining attention to do steps in algorithms or problems solving ❑ Difficulty in sustaining attention during instruction
Visual-Spatial Processing	❑ Loses place on the worksheet ❑ Difficulty seeing differences between numbers, coins, or operation symbols ❑ Problems in writing across paper in a string line ❑ Problems with direction: up/down, left/right, aligning numbers ❑ Difficulty using a number line
Auditory Processing	❑ Difficulty doing oral drills ❑ Problems with "counting on" from within a sequence
Memory & Retrieval	❑ Cannot remember math facts ❑ Forgets steps when doing a problem ❑ Difficulty telling time ❑ Forgets multiple-step word problems
Motor Problems	❑ Writes numbers illegibly, slowly, and inaccurately ❑ Difficulty in writing numbers in small spaces

Approaches to Math Instruction

A. Progression from Concrete to Abstract Learner

The learning of math is a gradual process. It is not a matter of either knowing it or not knowing it. Instead, the learning of math is a continuum that gradually increases in strength. (Baroody & Ginsburg, 1991, Ginsburg, 1997.

To help students progress from concrete to abstract learning, three sequential levels of mathematics instruction are suggested.

1. ***The concrete level-*** Students use actual materials, such as objects in the environment, blocks, cubes, poker chips, or place value sticks. Students can physically touch, move, and manipulate the objects as they workout solutions to number problems.
2. **The semi-concrete level-**Students use pictures or tallies to represent the concrete objects.
3. **The abstract level--**Students use only numbers to solve math problems without the help of semi-concrete pictures or tallies.

B. Constructive Learning of Mathematics

Constructive learning is based on the view that children construct their own solutions to math problems. Each child actively builds their own mental structures of mathematics. This type of instruction in math teaches children to become actively involved in math and encourages children to develop and use invented math for solving problems. Use of hands-on learning materials is encouraged to allow students to explore ideas for themselves through manipulative materials. These enable them to construct models with something they can see and touch to create real world experiences.

Teachers who use the constructivism approach use a process such as:

1. **Prompt students to formulate their own questions (inquiry)**
2. **Allow multiple interpretations and expressions of learning (multiple intelligences)**
3. **Encourage group work and the use of peers as resources (collaborative learning)**

C. Direct Instruction of Mathematics

Direct instruction is method of mathematics teaching that helps students achieve mastery of math skills through instruction that is explicit, carefully structured and planned. The sequential nature of mathematics makes the direct instruction approach particularly adaptable to the content of mathematics. Math programs based on direct instruction are high organized and sequenced. The steps for direct instruction are:

1. **Target a specific math objective to be accomplished.**

   This goal must be measurable and observable. For example, the goal may be the student will write the answers to 20 multiplication problems 1-7 in 10 minutes with 90% accuracy.

2. **Specify the sub-skills needed to reach that objective.**

3. **Determine which of these skills the student already knows.**

   For example, does he/she already know the numerals 1-5 easily in multiplication? Can they do the task accurately, but very slowly?

4. **Sequence the steps needed to reach the objective.**

   If the student already knows the multiplication of 1-5, then the steps for teaching multiplication of only 6-7 will be needed. If they already know 1-7 but do it very slowly, then teaching should provide drill and practice to speed up computation.

A substantial body of research supports the direct instruction approach to teaching mathematics. The research shows that direct instruction is an effective approach improving mathematics achievement of students with learning disabilities. (Carnine, 1997; Fuch & Fuchs, 2001)

D. Learning Strategy Instruction

The goal in this approach is to help students acquire strategies for meeting the challenges of math and taking control of their own math learning. Learning strategies instruction is particularly useful for adolescents with learning difficulties who have not

acquired the strategies needed for math learning. These students need specific instruction in developing their own independence and success in learning math and in monitoring their thinking about math. (Deshler et al., 1996, Deshler et al., 2001; Lenz et al., 1996)

E. Problem Solving

Problem solving refers to the kind of thinking needed to work out math word problems. It is the most difficult area of math for many students with learning difficulties. These students need extensive guidance and practice to learn to combine thinking and language with the calculation skills and concepts required to solve math problems. Research shows that when solving math problems, younger students use their own methods but by middle school, they start relying more on rote procedures and compute with whatever numbers are in the problem. Strategy instruction for mathematics problem solving has been effective with upper elementary, secondary and post-secondary students (Montague, 1997).

Four questions students can ask themselves when solving algebra word problems are:

1. **Have I written an equation?**
2. **Have I expanded the terms**
3. **Have I written out the steps to solve my solution on a worksheet?**
4. **What should I look for in a new problem to see if it is the same kind of problem?**

Teachers should have a dialogue with students about their responses to encourage and foster a problem solving attitude. This raises the level of students' answers. Teachers should use the Think Aloud technique when teaching problem solving and also have students think or talk aloud as they are solving problems as well. It is important to ask students "How did you get that answer?" even when answers are correct so they can explain how and why they solved it as they did. This helps the teacher understand the students' thinking process and where errors are being made.

MEMORY

Memory is what allows us to learn, grow, and make connections. It helps us make sense of the world around us. Memory grants us the ability to maintain and expand our knowledge in meaningful ways, while navigating the content of the curriculum. The three types of memory include: working, short-term, and long-term. All three of these are used for verbal and non-verbal processing which can impact the ability to store and recall information. A deficit in any of these areas would hinder the ability of a student to retrieve information required to carry out and complete classroom or homework tasks. These difficulties may become apparent when students are attempting to take tests, follow directions, and recall or review newly learned content. The following section, will outline each of the three types of memory and instructional strategies to support their development.

Short-Term Memory

The ability to translate, maintain, and manipulate a small amount of information in mind in an active, readily available state for a short period of time. Short-term memory is critical for following directions, staying on topic, and developing foundational understanding of a concept.

Working Memory

The ability to direct the focus of attention to perform relatively simple manipulations, combinations, and transformations of information within the short-term memory process while avoiding distracting stimuli and engaging in organized mental searches for information to connect with the long-term memory process. Working memory helps students hold on to information long enough to use it, which plays a significant role in concentration and in following daily instructions.

Long-Term Memory

The ability to store, consolidate, and retrieve information over periods of time measured in minutes, hours, days, and years. Long-Term Memory is critical for spelling, recalling facts on tests, and comprehension of content materials.

How do the three types of memory work together to support teaching and learning?

Short-term memory: a student reads a word, sentence, and or a paragraph and gathers meaning from what was read.

Working Memory: a student continues reading the full chapter and the newly used information is retained long enough to be utilized during class tasks or discussions.

Long term memory: information previously read is reviewed and studied over time. This allows information to become a part of the student's general body of knowledge.

Classroom Teacher Indicators

- ➢ Students may be looking several times at the board, notes, and textbook before recording or recalling information.
- ➢ Students may exhibit difficulty with following multi-step directions provided by the classroom teacher or as outlined in content materials.
- ➢ Students may request the teacher to repeat information in order to understand.
- ➢ Students may re-read text in order to comprehend.
- ➢ Due to lack of understanding the requirements of a task, students may have difficulties remaining on task or being engaged in class activities.
- ➢ Students may exhibit test anxiety due to the inability to recall specific information.
- ➢ Students may appear to have difficulties keeping track of their personal belongings and academic materials.

Classroom Interventions and Strategies

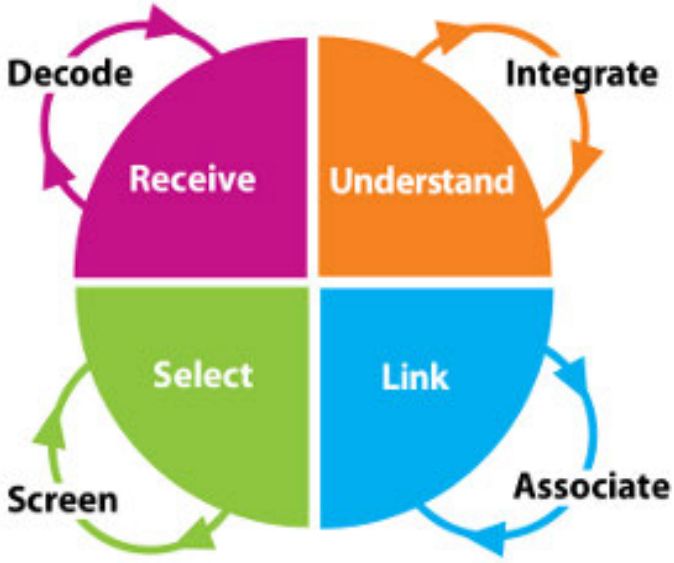
- Give directions in multiple formats - using both visual and verbal cues.
- Provide more time and repetition in order for the student to demonstrate understanding.
- Allow for repetition of information until tasks are completed and error free.

- Scaffold/chunk content when teaching new concepts and skills.
- Teach students to use visual images and other word memory strategies (ex. mnemonic devices) to retain data/information.
- Give students teacher-prepared classroom notes prior to class lectures, which will develop and activate prior knowledge.
- Teach students to be active readers by using guided/close reading activities that require note taking, highlighting important text, and circling unknown words.
- Teach students how to utilize graphic organizers for connecting thoughts with new information.
- Provide students with step by step procedures when computing math problems**.**
- Provide retrieval exercises for students, such as: practice quizzes, exit tickets, "think-pair-share", and other formative assessments.
- Activate prior knowledge by connecting with real-world experiences.
- Engage students by providing opportunities to play memory based games such as: Uno, Crazy Eights, Memory, and Concentration.
- Provide students with opportunities to explain newly learned material in their own words with peers (Project-Based Learning Activities).
- Have students practice reviewing classroom materials each night prior to going to sleep.

PROCESSING DIFFICULTY

Processing Difficulties in students fall into three distinct categories: Auditory, Sensory, and Visual Processing Disorders. Although it is not always clearly understood what causes these processing difficulties, children with processing difficulties face greater challenges when interacting with peers, reaching developmental milestones, and developing social skills, than their nondisabled peers. Processing difficulties can range from mild to extremely pervasive. Many of these processing disorders are present in children who also have a comorbid, or additional difficulty, such as Autism or Pervasive Developmental Delays. Students with processing difficulties tend to have trouble assimilating written or spoken information. They may take longer to answer questions and complete assignments or tests. This is not a matter of intelligence; but it does make it harder for students to demonstrate their knowledge.

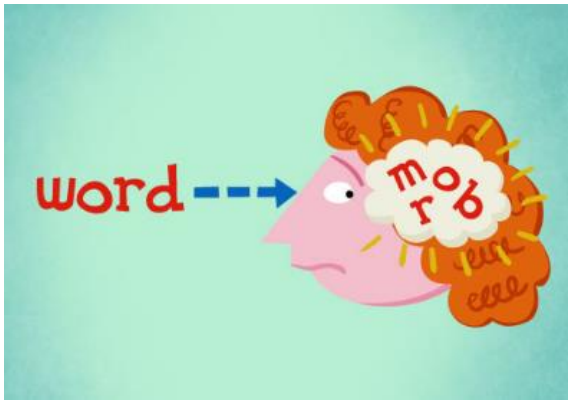
Image: Source ***http://www.soundtherapyperth.com/benefits/capd.php***



Auditory Processing Difficulties

A student with an Auditory Processing Disorder (APD) has difficulty distinguishing sounds, not necessarily attributed to hearing problems (also known as Central Auditory Processing Disorder). This is a condition that adversely affects how sound that travels unimpeded through the ear is processed, or interpreted, by the brain. Individuals with APD do not recognize subtle differences between sounds in words, even when the sounds are loud, and clear enough, to be heard. They may also find it difficult to tell where sounds are coming from, to make sense of the order of sounds, or to block out competing background noises. Its academic impact is significant across all subject areas during early grades, particularly reading and spelling.

Image: https://www.nessy.com/uk/teachers/further-dyslexia-information/auditory-dyslexia/



Classroom Teacher Indicators

- Has difficulty processing and remembering language-related tasks, but may have no trouble interpreting or recalling non-verbal environmental sounds, e.g. music, etc.
- May process thoughts and ideas slowly and have difficulty explaining them
- Misspells and mispronounces similar-sounding words or omits syllables; confuses similar-sounding words (celery/salary; belt/built; three/free; jab/job; bash/batch)
- May be confused by figurative language (metaphor, similes) or misunderstand puns and jokes; interprets words too literally
- Often is distracted by background sounds/noises
- Finds it difficult to stay focused on or remember a verbal presentation or lecture

- May misinterpret or have difficulty remembering oral directions; difficulty following directions in a series
- Has difficulty comprehending complex sentence structure or rapid speech
- "Ignores" people, especially if engrossed
- Says "What?" a lot, even when they have heard much of what was said

Classroom Interventions and Strategies

- Show rather than explain
- Supplement with more intact senses (use visual cues, signals, handouts, manipulatives)
- Reduce or space directions, give cues such as "ready?"
- Reword or help decipher oral and/or written directions that may be confusing
- Teach abstract vocabulary, word roots, synonyms/antonyms
- Vary pitch and tone of voice, alter pace, stress keywords
- Ask specific questions as you teach to find out if they do understand
- Allow them 5-6 seconds to respond ("think time")
- Have the student constantly verbalize concepts, vocabulary words, rules, etc.

Sensory Processing Difficulties

While all students can seem quirky or particular about their likes and dislikes, students with Sensory Processing Disorder (SPD) (also called Sensory Integration Dysfunction) will be so severely affected by their sensory preferences that it interferes with their normal, everyday functioning. Sensory issues may affect all five senses and are usually defined as either hypersensitivity (over-responsiveness) or hyposensitivity (under- responsiveness) to sensory input or input. Treatment for SPD typically takes place in a sensory-rich environment and may include Occupational Therapy (OT), auditory interventions (sometimes called listening therapy) or other complementary therapies (Heckenkemper, 2010). Below, find some common indicators of SPD one may see in the classroom.

Image: https://www.milestones4kids.com/sensory-processing-disorder/

Classroom Teacher Indicators

Hypersensitivities (over-responsiveness) to sensory input may include:

- Extreme response to or fear of sudden, high-pitched, loud, or metallic noises like flushing toilets, clanking silverware, or other noises that seem inoffensive to others
- May notice and/or be distracted by background noises that others don't seem to hear
- Fearful of surprise touch, avoids hugs and cuddling, even with familiar adults
- Seems fearful of crowds, or avoids standing in close proximity to others
- Doesn't enjoy a game of tag, and/or is overly fearful of swings and playground equipment
- Extremely fearful of climbing or falling, even when there is no real danger i.e. doesn't like his or her feet to be off the ground
- Has poor balance, may fall often

Hyposensitivities (under-responsiveness) to sensory input may include:

- A constant need to touch people or textures, even when it's inappropriate to do so
- Doesn't understand personal space, even when same-age peers are old enough to understand it
- Clumsy and uncoordinated movements
- An extremely high tolerance for or indifference to pain
- Often harms other children and/or pets when playing, i.e. doesn't understand his or her own strength
- May be very fidgety and unable to sit still, enjoys movement-based play like spinning, jumping, etc.
- Seems to be a "thrill seeker" and can be dangerous at times

Classroom Interventions and Strategies

- Make sure both the chair and desk are a good fit. When sitting in the chair, their feet should be flat on the floor, and their elbows should rest comfortably on the desk.
- For those who need to move a bit, you might try an inflated seat cushion or a pillow from home so they can both squirm and stay in their seat.

- They may be better off if they sit close to the teacher. However, if they are easily distracted by noise, they may end up turning around often to where the noise is coming from; so offer an alternate quiet location such as a corner or outer perimeter seat. Make sure they are not sitting next to distracting sources of noise.
- Use of an overstimulated signal empowers independence.
- If possible, eliminate buzzing and flickering fluorescent lighting.
- The OT can assist with equipment needed to support sensory input, such as weighted vest or lap pad, stretch band, seat cushion, etc.
- Have the OT work on knowing where their body is in relation to other people/objects, and the idea of personal space. A taped off location may also help to define personal space and wandering limits.
- Provide sensory breaks, such as walking in circles, pacing on a marked line, jumping on a mini-trampoline, or use of balance board to get the input that is craved.
- Allow for fidgets and safe chewable items to provide sensory input.
- Have the OT work with both fine and gross motor skills to gain more confidence, whether in gym class or while taking notes.
- To avoid meltdowns or bolting, plan for school assemblies. Sit near a door so that they can take breaks in the hallway with a teacher when they begin to feel overwhelmed. Use of noise cancellation devices may also be beneficial.
- If the cafeteria is too stimulating, arrange for quieter room to eat with a teacher or aide supervision.
- Have a clear visual schedule posted with plenty of preparation for transitions or change in the schedule. Transitional signals help to reduce stress and anxiety.
- Accommodate for fine motor fatigue by allowing oral responses or reducing written assignment length.
- Reduce visual information presented per page or use of colored overlays on chunked assignments.

Visual Processing Difficulties

A Visual Processing Disorder (VPD) is caused by a problem with the brain or the connection between the brain and the eyes, and can be difficult to detect. This condition creates difficulties in the ability to perceive, analyze, think in visual images, and visual memory. One common VPD is one of discrimination. Students with this disorder have difficulty telling the difference between items that are similar to one another, or have trouble with visual sequencing or tracking, meaning keeping one's place while completing tasks or classroom assignments. Another type of VPD is one of Visual Closure. Visual Closure is the ability to visualize a complete whole when given incomplete information or a partial picture. This skill helps children read and comprehend quickly; their eyes don't have to individually process every letter in every word for them to quickly recognize the word by sight. This skill can also help children recognize inferences and predict outcomes.

VPD includes visualization, which is the ability to create a picture in your mind of words or concepts. It is also possible for a VPD to interfere with a student's ability to interact with the environment. Problems with VPD can cause difficulty with both fine and gross motor skills. Visual Memory can also be affected by a VPD. These disorders can affect the Short-Term or Long-Term Memory.

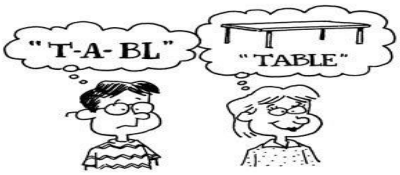


Image:https://teachbytes.com/2013/01/05/17-tech-tools-for-visualspatial-learners/

Classroom Teacher Indicators

- May have difficulty following instructions, reading maps, doing word math problems, and comprehending text
- May have difficulty telling the difference between letters, numbers, shapes, or colors that are similar to one another
- May have trouble with visual sequencing, meaning correctly identifying the order of letters or numbers, which can manifest as difficulty keeping one's place while reading or misreading words or numbers
- May have a problem understanding the spatial relationships, which is having difficulty with, or the inability to perceive one's own spatial orientation in relation to other objects

- May have trouble knowing what an object is when it is partially hidden
- May also confuse similar objects or words, especially words that have beginnings/endings that are close (what/white, think/thank)
- May have trouble remembering phone numbers, how to spell common words, or what they have just read

Classroom Interventions and Strategies

- Use a three ring binder or slant board to bring work closer to student's visual field (A personal reading lamp may also be attached to binder or slant board for greater illumination)
- Use wide-ruled paper to help student form letters and numbers on the paper
- Highlight or darken the margins on wide-ruled lined paper
- Give oral directions, as well as highlighted written instructions
- Verbally describe any visual presentations
- Simplify or chunk directions and assignments
- Use reading strips to simplify or unclutter text
- Reduce visual clutter of assignments (lots of white space/larger font)
- Fold paper/ worksheets into halves or thirds to minimize visual clutter

COMMUNICATION DIFFICULTIES

Communication is defined as the expression of information or thoughts through speech, writing, or gestures. When communication becomes impaired, it is often referred to as a communication disorder.
A communication disorder is any disorder that affects an individual's ability to comprehend, detect, or apply language and speech to engage in discourse effectively with others. The delays and disorders can range from simple sound substitution to the inability to understand or use one's native language. To support students with communication difficulties, it is imperative to work collaboratively with your building-level Speech and Language Pathologist (SLP) to develop appropriate student specific learning strategies and interventions.

Speech (Articulation)

Speech sounds or articulation can be defined as how we say sounds and put sounds together into words. Other words for these problems are articulation or phonological disorders, apraxia of speech, or dysarthria. An articulation disorder is a speech disorder that involves difficulty in producing or articulating specific sounds. Articulation disorders often involve substitutions of one sound for another, slurring of speech or distorting speech. These errors can occur in isolation, at the word level, phrase or sentence level or in conversation.

Classroom Teacher Indicators

- Adding extra sounds and words
- Distorting sounds when talking
- Hoarseness, or speaking with a raspy or gravelly sounding voice
- Omitting sounds

Classroom Interventions and Strategies

- If you cannot understand a student and you have asked them to repeat themselves, it might help to ask the student to show you or say it in a different way. For example, ask the student to write the word if they are able to do so.
- If the student's response contains a known sound error, it's important to repeat what the child said with an appropriate model. (e.g., If the child says 'nak' for snake, you would say, "Oh, you want the snake"). This way you are not focusing on the error or calling negative attention to the child, but providing an appropriate model.
- With younger children bring whatever you are talking about closer to your mouth so that the child is more apt to focus on speech production.
- If you hear a consistent speech sound error use written text to increase the child's ability to see, hear and be aware of that sound. (e.g., Ask the student to find all of the words containing the error sound in a page of a story. Make this a routine in your classroom so that no student is singled out.)
- If you have a student who is able to make a sound correctly some of the time when they know an adult is listening, set up a non-verbal cue with that child to let them know that you are listening. (e.g., for example, putting your hand on the student's shoulder, before you call on them to read aloud.)
- Highlight words in their own writing or in classroom worksheets that contain sounds that the child is misarticulating.
- Encourage the student to practice correct production of speech sounds at home.

Language

Language can be defined as how well we understand or process what we hear or read and how we use words to tell others what we are thinking.

Receptive Language - the ability to understand words and language. This term may also be referred to as listening or language processing disorder.
Expressive Language- the use of words, sentences, gestures and writing to convey meaning and messages to others. This term may also be referred to as speaking.
Nonverbal- not using words to communicate. This is sometimes a voluntary and/or involuntary act.

Pragmatic Language- (Social communication) how well we follow rules, like taking turns, how to talk to different people, or how close to stand to someone when talking.

Classroom Teacher Indicators

- Does not smile or interact with others
- Difficulty understanding body and social cues
- Defiant / argumentative
- Makes only a few sounds or gestures, like pointing
- Avoids conversation
- Does not understand what others say
- Says only a few or no words
- Does not put words together to make sentences
- Has trouble playing and talking with other children
- Has trouble with reading and writing skills
- Has trouble recognizing nonverbal cues such as facial expression or body language
- Has difficulty coping with changes in routing and transitions
- Has difficulty generalizing previously learned information
- Has difficulty following multi-step instructions
- Make very literal translations
- Asks too many questions, may be repetitive and inappropriately interrupt the flow of a lesson
- Imparts the "illusion of competence" because of the student's strong verbal skill

Classroom Interventions and Strategies by Area

FOR NONVERBAL COMMUNICATORS:

- Use cue cards and posters with signals to allow students the ability to point and gesture wants and needs.
- Assign student a peer partner who agrees to assist student when needed.
- Allow student to write responses versus orally (ex; white board, computer ipad etc.).
- Use sentence strips for sentence structure and formation.

- Try various alternative augmentative device (AAC) to see which works best for the student.

FOR DIFFICULTY WITH GRAMMAR AND/OR SENTENCE STRUCTURE (RECEPTIVE AND EXPRESSIVE LANGUAGE):

- If the child says something incorrectly repeat it for them correctly in a natural way. Be sensitive about not calling negative attention to their language. For example, if the child says "I goed to the store." You'd say, "Oh you went to the store."
- When the child's speech or writing contains grammar or word order errors, show them in writing the correct form.
- When working with the child individually with written or oral language, repeat the error and ask the child how the sentence sounds. For example, the child says or writes, "I goed to the store." You say, "I goed to the store? Does that sound right?" If the child is unable to correct it give them a choice. For example, "Which sounds better, 'I goed to the store.' or 'I went to the store."?
- For frequently occurring errors, build it into daily oral language as practice for the entire class.

FOR DIFFICULTY WITH VOCABULARY AND WORD MEANINGS (RECEPTIVE AND EXPRESSIVE LANGUAGE):

- Prior to introducing new units/stories compile a list of key vocabulary words. Discuss words and possible meanings with students.
- When introducing words, try using a graphic organizer, visual mapping or chunking to come up with word relationships including antonyms, or synonyms.
- When possible pair a visual picture with the vocabulary words. When vocabulary is abstract and pictures are not available, try to relate the words to a personal experience for students to relate to.
- Place words and definitions on note cards. Use cards to play games such as matching or memory.
- Create word list with vocabulary and definitions to display in a visible place within the classroom.
- Provide student with vocabulary list including definitions one week prior to beginning a new unit.

- Encourage use of word-games with family (Tribond, Buzzword, Scattergories, and Apples to Apples etc.).
- Consult with a speech therapist for ideas using graphic organizers.

FOR DIFFICULTY WITH FOLLOWING DIRECTIONS (RECEPTIVE LANGUAGE):

- When giving directions, repeat them again using different words.
- Using gestures when giving directions can be beneficial.
- If there are several directions, give one to two directions at a time versus all at one time.
- Be specific when giving directions.
- If possible, give a visual cue. For example, if making an activity you can demonstrate the steps as you go along. Showing the completed project would also provide them assistance.
- When working with projects that have multi-step directions, it may be helpful to write the directions on the board.
- Create a list of common directions that are used throughout the day. When needed, they can be laminated and placed on the board for the entire class, or can be smaller to be placed on the individual's desk.
- The student may benefit from sitting next to an individual who would be willing to provide assistance with multi-step tasks.

FOR DIFFICULTY WITH PROCESSING INFORMATION (RECEPTIVE LANGUAGE):

- Ask basic questions that have the answer in a picture or hands-on activity.
- Provide small group opportunities where the children can discuss newly learned concepts or ideas.
- Provide adequate time for the child to process what you have asked and form their answer. If the child does not respond after a given period of time, ask the question in a different way.
- Use several modalities when teaching materials (speaking, reading, writing, listening, visual, hands-on).
- Do frequent comprehension checks when teaching. Stop periodically and discuss the information you have presented.
- Encourage the child to ask for help.
- Provide additional support for writing down information, such as assignments in the student's homework notebook. Actual pictures could also be taken of what needs to go home (i.e. Math book, writing notebook, etc.). Some students may need written directions on how to complete assignments so that parents can assist them in the home.

FOR DIFFICULTY WITH SOCIAL COMMUNICATION (PRAGMATICS):

- Social Stories (Stories written to positively depict a situation in which a student has a difficult time- providing the student with appropriate ways to interact or respond.
- Visual schedules (Provide students who may need visual input to assist with transitions, expectations for the day.)
- Allow student to work in a group with students who are accepting and supportive.
- Search for opportunities that support appropriate social interactions. (i.e. 'Bobby, will you please go to Sue's desk and ask her to bring me her Math folder.')
- Avoid having activities where students 'pick' a partner. Assign partners instead to avoid feelings of rejection.
- Board games and card games can be beneficial as they promote turn taking and sportsmanship. Be available to support sportsmanship and help to remember that playing the game is more important than winning the game.

- Comment on positive models for targeted social skill when used by other students in the classroom. (Jenny, I really like how you raised your hand instead of interrupting me when I was talking to the class.)

To support a student with Social Communication/Pragmatic difficulties, the teacher and SLP may want to collaborate with their building-level School Social Worker to establish age/grade appropriate interventions and strategies.

Voice

Voice can be defined as how our voices sound. We may sound hoarse, lose our voices easily, talk too loudly or through our noses, or be unable to make sounds.

Classroom Teacher Indicators

- Difficulty being heard or communicating in educational environments inside or outside of the classroom setting
- Limited participation in public speaking activities
- Fear of participating in oral reading activities
- Limited participation in classroom discussions with peer groups
- Fear of conversing in interpersonal interactions (i.e., raising hand to request to go to the bathroom)
- Limited participation in regular physical education routines due to compromised physiologic aspects of the laryngeal anatomy
- Limited participation in music education (vocal and instrumental) due to a compromised upper airway
- Reluctance to participate in activities, such as school plays, cheerleading, and debate
- Limited participation in secondary education coop activities, requiring the student to take non vocal jobs only
- Reluctance to participate in interview activities, thereby limiting access to employment and certain educational opportunities
- Negative attention from peers, teachers, and other school personnel

- Hindrance of academic goals of other classroom students (i.e., a child's voice quality may be distracting to other classmates who may focus on the abnormal voice quality instead of on the content of the message)

Classroom Interventions and Strategies

- Allow the student to have a water bottle at their desk for the student to take frequent sips of. (If necessary, use a visual aid for student to track intake- a reward may be needed.)
- Discuss healthy ways for students to use their voices, i.e. drink water, no caffeine, no yelling or making strange noises, or to use a quiet voice, but NOT to whisper.
- Provide a positive comment to the student for using good vocal hygiene, such as not shouting to get attention.
- Place a visual cue on the students' desk (like a picture of someone talking). When you hear vocal misuse, touch the picture on the desk to help remind the student to use good vocal techniques.

Fluency (Stuttering)

Fluency is defined as how well speech flows. Someone who stutters may repeat sounds, like t-t-t-table, use "um" or "uh," or pause a lot when talking. Many young children will go through a time when they stutter, but most outgrow it.

Classroom Teacher Indicators

- Taking frequent pauses or speech breaks while trying to say a word ("——boy" for "boy")
- Elongating words (Stretches sounds out—"ffffff-farm" for "farm")
- Making jerky movements while talking, usually involving the head
- Repeating sounds, (Repeats first sounds of words—"b-b-b-ball" for "ball")
- Blinking several times while talking
- Visible frustration when trying to communicate

Classroom Interventions and Strategies

- Allow the student to complete his/her thoughts without interrupting or completing the sentence for them.
- It is important not to ask the child to stop or start over their sentence. Asking the student to 'take a breath' or 'relax' can be felt as demeaning and is not helpful.
- Maintain natural eye contact with the student. Try not to feel embarrassed or anxious as the student will pick up on your feelings and could become more anxious. Wait naturally until the child is finished.
- Use a slow and relaxed rate with your own speech, but not so slow that you sound unnatural. Using pauses in your speech is an effective way to slow down your speech rate as well as the students.
- Give the student your full attention when they are speaking so that they know you are listening to what they have to say. It is helpful that the child does not feel that they need to fight for your attention. With younger children it is also helpful to get down to their level, placing a hand on their chest as well as using eye contact assures them that they have your attention.
- After a student completes a conversational turn, it would be helpful for you to rephrase what they said in a fluent manner. This can be helpful as the student realizes you understand what they said, but also provides a fluent model for them.
- Try to call on the student in class when you feel that they will be successful with the answer (when the student raises his/her hand) versus putting the student on the spot when they have not volunteered information. In addition, new material or complex information may cause the student to feel more stress and thus, increase dysfluencies.

Feeding and Swallowing (Dysphagia)

Feeding and swallowing is defined as how well we suck, chew, and swallow food and liquid. A swallowing disorder may lead to poor nutrition, weight loss, and other health problems. This is also called dysphagia**.**

Classroom Teacher Indicators

- Coughing and/or choking during or after swallowing
- Crying during mealtimes
- Decreased responsiveness during feeding
- Difficulty chewing foods that are texturally appropriate for age (may spit out or swallow partially chewed food)
- Difficulty initiating swallowing
- Difficulty managing secretions (including non-teething-related drooling of saliva)
- Disengagement/refusal shown by facial grimacing, facial flushing, finger splaying, or head turning away from food source
- Frequent congestion, particularly after meals
- Frequent respiratory illnesses
- Gagging
- Loss of food/liquid from the mouth when eating
- Noisy or wet vocal quality during and after eating
- Taking longer to finish meals or snacks (longer than 30 minutes)
- Refusing foods of certain textures or types
- Taking only small amounts of food, over-packing the mouth, and/or pocketing foods
- Vomiting (more than typical “spit-up” for infants)

Classroom Interventions and Strategies

- Allowing the student extra time to complete snacks and meals to maximize swallow safety, nutrition and hydration.
- Make sure that students are seated in a position where his or her head is upright and stabilized, hips bent at 90 degrees in a sitting position with the feet stabilized.
- Encourage students to eat by taking small bites and without rushing

ATTENTION DIFFICULTIES

Attention is the act of focusing on incoming information or environmental factors. In case of learning one needs to focus on or attend to the content material being thought. A student's ability to attend to incoming information can be observed, broken down into the needed sub-skills, and can be improved by providing classroom interventions and strategies. Attention issues and disorders are most commonly associated with a medical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD), but they can also be caused by other medically recognized issues, such as: anxiety, depression, and trauma. Additional issues that can be determined through an educational evaluation are learning and sensory difficulties (Thorne, G., Thomas, A., and Lawson, C.). While all children tend to have shorter attention spans and be more distractible than adults, some have much more trouble focusing and staying on task than their peers (CMI). This section will concentrate on the medical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) and the four primary types of attention: sustained, selective, alternating, and divided attention. Alternating and divided attention are often used interchangeably and will be combined for the classroom discussion.

ATTENTION DEFICIT HYPERACTIVITY DISORDER

Attention Deficit Hyperactivity Disorder (ADHD) is a medical disorder that includes difficulty staying focused and paying attention, difficulty controlling behavior and hyperactivity. Although ADHD is not considered a learning disability, research indicates that from 30-50 percent of children with ADHD also have a specific learning disability, and that the two conditions can interact to make learning extremely challenging. Medically, a student's primary physician may classify the student as having ADHD in one of the three types: Hyperactive/ Impulsive Type, Inattentive Type, and Inattentive/ Hyperactive/ Impulsive Combined Type.

Hyperactive/ Impulsive Type: children show both hyperactive and impulsive behavior, but for the most part, they are able to pay attention.

Inattentive Type: formally called Attention Deficit Disorder (ADD). These children are not overtly active. They do not disrupt the classroom or other activities, so their symptoms might not be noticed.

Inattentive/Hyperactive/ Impulsive Combined Type: Children with this type of ADHA show all three symptoms. This is the most common form of ADHD (W&M).

Classroom Teacher Indicators

Predominantly hyperactive/impulsive type: The student may:

- appear to be in constant motion,
- frequently fidget or move in his or her seat,
- become restless during quiet activities,
- leave his or her seat when expected to remain seated,
- interrupt others and classroom activities,
- talk excessively, and/or
- fail to follow classroom procedures (e.g., blurt out answers without raising hand).

Inattentive type: The student may:

- submit inaccurate or incomplete work,
- have difficulty attending to conversations, activities, or tasks,
- be easily distracted,
- have difficulty following directions,
- frequently lose materials, and/or have difficulty organizing tasks and materials.

Inattentive/Hyperactive/ Impulsive Combined Type: The student may exhibit symptoms that include behaviors from both categories above.

Classroom Interventions and Strategies

No one intervention is universally effective for all students with ADHD. A combination of research-based and promising practices is recommended. Several of these practices are described below:

- Many students with ADHD have trouble following directions, limit the number of directions or steps at a time and have students repeat the given direction. Provide written directions or steps, or a visual model of a completed project. This strategy is particularly helpful for long-term projects.
- Many students with ADHD have particular challenges with written work due to fine-motor skills difficulties, motor planning issues, and difficulty alternating their attention from a book to their written responses. Students with ADHD may also need assistance breaking a larger task or project into smaller, more workable units. The following strategies can be used to address these needs.
  - Deconstructing Tasks: Break tasks into smaller units.
  - Limit amount of work per page.
  - Cover up part of the work on a page.
  - Allow extra time for completing tasks.
  - Provide work breaks.
  - Allow student to use a computer to type or to use speech-to-text software.
  - Reduce the length of written assignments.
  - Organization Many students with ADHD have significant difficulties with organization. They are more likely to respond positively when teachers establish class routines and set procedures and maintain a well-organized learning environment.

- Clear rules and advanced planning are keys to success for teachers of students with ADHD. The following organizational supports are particularly useful. Students should be

taught to use these tools through teacher modeling and guided practice with feedback before being expected to use them more independently.

- Assignment Notebook: Provide the student with an assignment notebook to help organize homework and seatwork.
- Color-Coded Folders: Provide the student with color-coded folders to help organize assignments for different academic subjects.
- Homework Partners: Assign the student a partner who can help record homework and other seatwork in the proper folders and assignment book.
- Clean Out Dates: Periodically ask the student to sort through and clean out his or her desk, book bag, and other special places where written assignments are stored.
- Extra Books: Provide the student with an extra set of books or electronic versions of books for use at home. This eliminates the student having to remember to bring books back and forth.
- Use of Calendars: Teach the student to use a calendar for scheduling assignments. Tape a schedule of planned daily activities to the student's desk to help with time management and transitions.
- Checklist of Homework Supplies: Give the student a checklist that identifies categories of items needed for homework assignments. The checklist can be taped to the inside of the student's locker or desk.

SUSTAINED ATTENTION

Sustained Attention is the ability to remain focused and engaged for an amount of time to complete a given task. It may also involve being able to selectively choose what is most important to attend to. Sustained attention is developmental as older children usually need to be able to attend for longer periods to complete more complex tasks. Student typically displays longer sustained attention when they find the task to be particularly interesting or interactive (SCCFC).

Classroom Teacher Indicators

- Homework is not completed in a timely fashion
- Student is distracted during conversations and discussions with others
- Unable to work on tasks that they find boring or dull
- Unable to sitting still during a short lesson or activity
- Starts more than one activity or homework assignment before finishing the first
- Struggles to ignore surrounding noise and activities to concentrate on the task at hand
- Does not watch a complete television show or movie
- Struggles to sit or listen to an entire story or reading

Classroom Interventions and Strategies

- Select a "cue" for getting students' attention.
- Do not begin until all students are paying attention.
- Remove distractions
- Establish classroom routines, using the same clues and procedure to gain students attention will help start the lesson smoothly
- Be clear and concise when giving directions
- Use physical activity to enhance the brain chemistry that supports sustained attention.
- Allow interesting and stimulating tasks to follow boring and mundane tasks.
- Use games or activities to strengthen sustained attention such as: "Memory" and other card games, "Simon Says", "Guess Who?", "Find the Difference", Puzzles "Where's Waldo?", and "I Spy," and other search and find books

SELECTED ATTENTION

Selective Attention is the ability to remain focused and on task while being subjected to related and unrelated sensory input (distractions). Both consciously and unconsciously, we edit our environment and pay attention to some things while ignoring others. With the increasing amount of stimuli, we deal with each day, this capability becomes more and more important to sort out what matters and what doesn't (Johnson).

Classroom Teacher Indicators

- Student is distracted by noise in the hallway or something happening in the schoolyard outside the window instead of paying attention to a lesson
- Struggles switching from learning one subject to the next or from one class to another
- An earlier event is preventing them from focusing the current class lesson (perseveration)
- Unable to prioritize their class or homework assignments based off of due dates
- Worried about doing well on a test which prevent them from staying focused and remember everything studied
- Not able to identify what is most important right now and paying attention only to that

Classroom Interventions and Strategies

- Use nonverbal communication such as gestures and hand signals (like pointing, nodding, giving a thumbs up or down) to help redirect students to task
- Provide transition signal
- Use frequent checks or chunk assignment dates
- Provide study guides and/ or graphic organizers
- Pairing with a buddy to increase on-task behaviors.
- Small group work to reduce anxiety and increase activities ownership within the group.
- Building on student strengths and areas of interest
- Activate prior learning and allow for warm up activity

ALTERNATING AND DIVIDED ATTENTION

Alternating Attention is the ability to switch between tasks; to stop one task to participate in another and then be able to return to the initial task. This may include activities such as taking notes, classroom interruptions, or unplanned events, then being able to accurately and efficiently return to the original task.

Divided Attention is the ability to remember information while performing a mental operation and attending to two things at once (multi-tasking) where neither activity is stopped in order to carry out the other activity.

Classroom Teacher Indicators

- Student unable to participating in conversation while walking or finding a route.
- Unable to follow written instructions (e.g. a science experiment) and carrying out the task the instructions refer to.
- Listening and responding to prompts and information from the teacher while trying to carry out the task at the same time. This can adversely affect their ability to benefit from instruction.
- Managing classwork, homework and social situations.

Classroom Interventions and Strategies

- Students who struggle with attention often do better if they are given brief breaks for active play (brain breaks)
- Attention breaks such as using a timer or an app on the phone, having a signal go off during the work period, and have the student mark whether he/she was paying attention. Tracking to mark an increase or decrease in on-task behavior.

- Adjust time frames for all or some of your students. Using timers, have the student who is struggling with attention show his/her work after a short period of time. This breaks up the task and allows the student to keep working without feeling completely overwhelmed.
- Remove unnecessary clutter and visual stimuli from the workspace. This increases the student's ability to stay focused on the task at hand.
- Have the student focus long enough to perform part of the task, then take a break, coming back to the project to finish. Students with attention struggles may actually perform the requested task faster with this strategy than if they simply tried to finish it all in one sitting (Reeves)

SOCIAL-EMOTIONAL DIFFICULTIES

According to Caroline Miller, editorial director of the Child Mind Institute, not paying attention is often first recognized by a classroom teacher who notices a student being easily distracted and/or off task. On average, elementary students tend to have shorter attention spans and be more distractible than other students, some have much more trouble focusing and staying on task than others. Since difficulty paying attention is widely associated with attention deficit disorders, which maybe the initial condition that is suspected by a teacher, and even parents, but there are a number of other possibilities that can be contributing to attention problems. To avoid misjudgments and applying the wrong intentions, it's important that social-emotional conditions, which are not always obvious, not be overlooked. In the school setting there are several social and emotional difficulties that students may experience, which can adversely affect their academic and behavioral performances. When supporting students who are struggling social and/or emotionally, teachers should be aware of the following overall social-emotional factors.

- The inability to build or maintain satisfactory interpersonal relationships with peers and/or teachers.
- An inability to learn which cannot be adequately explained by intellectual, sensory or health factors.
- A consistent or chronic inappropriate type of behavior or feeling under normal conditions.
- A displayed pervasive mood of unhappiness or depression.
- A displayed tendency to develop physical symptoms, pains or unreasonable fears associated with personal or school problems.

Anxiety

A student who seems not to be focusing in school could have chronic worries that teachers (and even parents) are not aware of. There are many types of anxiety, but what they all have in common, says neurologist and former teacher Ken Schuster, PsyD, is that anxiety "tends to lock up the brain," making school a difficult place for anxious students. Anxiety disorders are one of the most common types of mental health concerns in children and adolescents. It is feelings of worry, nervousness or unease, typically about an imminent event or something with uncertain outcomes. Anxiety disorders generally fall into one of three categories:

Generalized Anxiety Disorder: Symptoms of generalized anxiety disorder that parents and child care-caregivers need to know about include fidgeting, short temper, being uptight, or getting tired easily. The child may have a hard time keeping his or her mind on what they are doing. The child may not sleep soundly.

Separation Anxiety Disorder: Symptoms of separation anxiety disorder may include hanging on to parents to keep parents from leaving, doing things to keep from having to go to school, or afraid to sleep in their own room alone.

Social Phobia: Symptoms of social phobia include the child who may be extremely shy, not want to talk to people outside of his or her family, or not wanting to eat outside his or her own home. The child may become very afraid to be with unfamiliar people or in new places.

Classroom Teacher Indicators

- Nervousness, restlessness, or being tense.
- Feelings of danger, panic, or dread.
- Rapid heart rate.
- Rapid breathing or hyperventilation.
- Increased or heavy sweating.

Classroom Interventions and Strategies

- Create a "safe" place for the child to go when anxiety symptoms are high. Be aware of physical symptoms of anxiety and provide activities to distract the child such as
  - Allowing the student to take a break
  - Providing calming activities to help decrease their negative feelings (Writing, drawing or sitting quietly)
  - Asking the student if he/she would like to talk about their feelings.

- Provide the student with positive interventions that may help address their feelings and concerns. Classroom teachers may:
  - Giving the student choices: Taking a break, writing or drawing to express how they're feeling.
  - Asking the student if he/she would like to put their head down for a moment to help them relax.
- Classroom teachers can support students who suffer with anxiety by using pre-taught relaxation techniques that encompasses:
  - Taking deep breathes
  - Counting out loud for de-escalation
  - The use of Stress balls, or other fidgets
  - For students who enjoy writing, story-telling in a written format may be supportive.

- Using small group activities throughout the day:
  - Allowing the student to work in a small group setting can help decrease their chances of feeling overwhelmed, and feel supported in the classroom setting.
  - Pairing the student up with a one on one peer partner can also be a beneficial intervention.
  - This will depend on the student's preference/needs.
- Rewarding effort by developing an incentive program to encourage the student and help manage their own anxiety.
  - Use Incentive chart
  - Provide praise
  - Allow for positive phone calls home
  - Allow the student to become a classroom helper, which may help the student relax.

Depression:

A depressive disorder is a medical condition that involves the body, mood, and thoughts. It interferes with daily activities of living (ADLs). Students who have been diagnosed with depression, may exhibit low academic achievement, social isolation, and complications getting along with friends and family.

Classroom Teacher Indicators

- Persistent sad, anxious, or empty mood
- Feelings of hopelessness or pessimism
- Feelings of guilt, worthlessness, or helplessness
- Decreased energy, fatigue, being "slowed down"
- Difficulty concentrating, remembering, or making decisions
- Thoughts of death, suicide, or suicide attempts
- Restlessness, irritability
- Isolation from peers, problems with social skills, defiance
- Forgetting to complete assignments, difficulty concentrating
- Refusing to complete work, missing deadlines

Classroom Interventions and Strategies

- Give frequent feedback on academic, social, and behavioral performance by meeting with the student one on one to discuss their progress and areas of concerns. Work with the student to develop a plan that can help them to improve socially or behaviorally and make sure the student's ideas/feedback is incorporated in the plan. As the plan is being implemented, remember to praise the student's effort for his/or her attempts and progress.
- Teaching the student how to set goals and self-monitor by meeting with the student to develop realistic goals. It is important for the teacher to explain to the student the purpose and benefit of developing the behavioral plan. In order for the student to have buy-in with any behavioral plan, ask the student to identify what goals they would like to achieve and then help them to prioritize their goals.
- Teach students problem-solving skills by working with the student to help them become aware of the feelings. Supporting them in identifying triggers/stressors. The teacher may need to work closely with their School Social Worker to identify positive coping skills to students manage their feelings.

Oppositional Defiant Disorder

Oppositional Defiant Disorder (ODD) can be defined as a behavioral or defiance condition which is manifested by chronic aggression, frequent outbursts, and a tendency to ignore requests and purposely irritate others. It is important to note that all students at one point or another may challenge authority (teachers, administrators, and/or parents) by lashing out from time to time. However, to warrant a clinical diagnosis of ODD, a student must exhibit a consistent pattern of negative, hostile, and defiant behaviors that lasts at least six months or so.

Classroom Teacher Indicators

- Physical aggression
- Verbal abuse
- Explosions of anger
- Deliberately annoying others
- Vindictive behavior
- Frequent arguments
- Defiance of rules and laws

Classroom Interventions and Strategies

- **Get to Know YOUR Student beyond the classroom Level:** Often students with ODD are looking for a trustworthy relationship with an adult, particularly one of their classroom teachers. The primary intent of forming this relationship is to have access to an adult to discuss their concerns and mediate their problems. Building a connection with your student (s) with ODD will help get to the root of their perceived non-compliant behavior.
- **Avoid Power Struggles:** Stay out of those winless power struggles. According to a survey of middle school teachers conducted by the National Educator's Association (NEA), there are five ways that teachers can avoid failing into the pitfall of a power struggle with their students.
- **Engage students by providing a "hook"** for each lesson at the beginning to keep them thinking and interested. Motivational, interesting building "hooks" may prevent potential disruptions and stimulate students' minds so they focus on the content of the

lesson. In addition, teachers who asks challenging questions stimulates student interest by encouraging them to participate in activities of learning.

- **Try to understand the student's background and home life.** Problems at home or a difficult home life are often a reason for student conflicts. Knowing the backstory of each student and their home life, can position a teacher to better relate to their social/emotional needs of their students. Making meaningful connections with students creates a level of respect and trust between students and the teachers
- ***Make it a teaching moment.*** When a confrontation arises in your classroom, model for the student how to deal with it in an appropriate method and uphold the integrity of your classroom authority and space. Teachers should immediately stop the disagreement, continue with classroom instruction, and arrange to discuss it with the student in a mature, adult manner, regardless of the age of the student, after the lesson. By doing so, will demonstrate to your students that negative situations can be stopped before they get out of control.
- ***React in a way that allows the student to save face***. Never engage a student in front of classmates. It humiliates the student in front of his peers and can send a message that you don't care about their feelings, and could potentially escalate the situation.
- **Remember to maintain control** of your own actions and somehow find a way to give the student an 'out' so that he or she can calm down without losing too much face with his peers.

Emotional Difficulties

When a student displays emotional difficulties, a common trait that is exhibited often includes difficulty building or maintaining satisfactory relationships with peers and/or adults. This student typically displays inappropriate types of behavior and feelings under normal circumstances.

Classroom Teacher Indictors

- Frequent and excessive arguments with peers and adults
- Purposefully annoys or upsets others.
- Blaming mistakes or poor behavior on others.
- Becoming easily irritated or annoyed by others.
- Vindictive Behavior

Classroom Interventions and Strategies

- Keep class rules/activities simple and clear
- Reward positive behaviors
- Allow for mini-breaks
- Fair treatment for all
- Use motivational strategies
- Be aware of your frustration level
- Acknowledge on task behaviors
- Reward positive behaviors (Develop and incentive chart)
- Model positive behaviors
- Pair them up with a student partner
- Allow for mini-breaks
- Monitor mood changes/ frustration level.

EXECUTIVE FUNCTIONING SKILLS INVENTORY: Planning for Teaching and Learning

Executive Function refers to a set of mental skills that are coordinated in the brain's frontal lobe. Executive Function is a set of mental processes that helps connect past experience with present action. People use it to perform activities such as planning, organizing, strategizing, paying attention to and remembering details, and managing time and space. Problems with executive function can run in families. They may become most apparent during a child's grade school years, when they interfere with the ability to start and complete schoolwork on time. The good news is that the brain continues to develop well into adulthood. A student's executive functions are shaped by physical changes, but also by ongoing experiences. Early attention to problems with executive functioning can help children outgrow and compensate for weaknesses.

Students who struggle with school work often demonstrate one or more areas of weakness related to Executive Functioning:

Inhibition - The ability to stop one's own behavior at the appropriate time, including stopping actions and thoughts. The flip side of inhibition is impulsivity; if you have weak ability to stop yourself from acting on your impulses, then you are "impulsive." (When

Aunt Sue called, it would have made sense to tell her, "Let me check the calendar first. It sounds great, but I just need to look at everybody's schedules before I commit the whole family.")

Shift - The ability to move freely from one situation to another and to think flexibly in order to respond appropriately to the situation. (When the question emerged regarding who would watch the cats, Robin was stymied. Her husband, on the other hand, began generating possible solutions and was able to solve the problem relatively easily.)

Emotional Control - The ability to modulate emotional responses by bringing rational thought to bear on feelings. (The example here is Robin's anger when confronted with her own impulsive behavior in committing the family before checking out the dates: "Why are you all being so negative?")

I**nitiation** - The ability to begin a task or activity and to independently generate ideas, responses, or problem-solving strategies. (Robin thought about calling to check on the date of the reunion, but she just didn't get around to it until her husband initiated the process.)

Working memory - The capacity to hold information in mind for the purpose of completing a task. (Robin could not keep the dates of the reunion in her head long enough to put them on the calendar after her initial phone call from Aunt Sue.)

Planning/Organization - The ability to manage current and future- oriented task demands. (In this case, Robin lacked the ability to systematically think about what the family would need to be ready for the trip and to get to the intended place at the intended time with their needs cared for along the way.)

Organization of Materials - The ability to impose order on work, play, and storage spaces. (It was Robin's job to organize the things needed for the trip. However, she just piled things into the car rather than systematically making checklists and organizing things so important items would be easily accessible, so the space would be used efficiently, and so that people and "stuff" would be orderly and comfortable in the car.)

Self-Monitoring - The ability to monitor one's own performance and to measure it against some standard of what is needed or expected. (Despite the fact that they're off to Missouri without knowing how to get there, with almost no planning for what will happen along the way, and without a map, Robin does not understand why her husband is so upset.)

QUICK STRATEGIES TO USE WITH ALL STUDENTS

Everyone processes and learns new information in different ways. There are three primary cognitive learning styles: visual, auditory, and kinesthetic. The common characteristics of each learning style listed below can help you understand how you learn and what methods of learning best fits you. Understanding how you learn can help maximize time you spend studying by incorporating different techniques to custom fit various subjects, concepts, and learning objectives. Each preferred learning style has methods that fit the different ways an individual may learn best.

Visual Characteristics

- Uses visual objects such as graphs, charts, pictures, and seeing information
- Can read body language well and has a good perception of aesthetics
- Able to memorize and recall various information
- Tends to remember things that are written down
- Learns better in lectures by watching them

Visual Strategies

- Turn notes into pictures, charts, or maps
- Avoid distractions (windows, doorways, etc.)
- Learn the big picture first and then focus on the details
- Make mind and concept maps instead of outlines
- Color code parts of new concepts in your notes
- Use flash cards when trying to study vocabulary

Auditory Characteristics

- Retains information through hearing and speaking
- Often prefers to be told how to do things and then summarizes the main points out loud to help with memorization
- Notices different aspects of speaking
- Often has talents in music and may concentrate better with soft music playing in the background

Auditory Strategies

- Record lectures and then listen to them
- Repeat material out loud and in your own words
- Discuss materials in your study groups

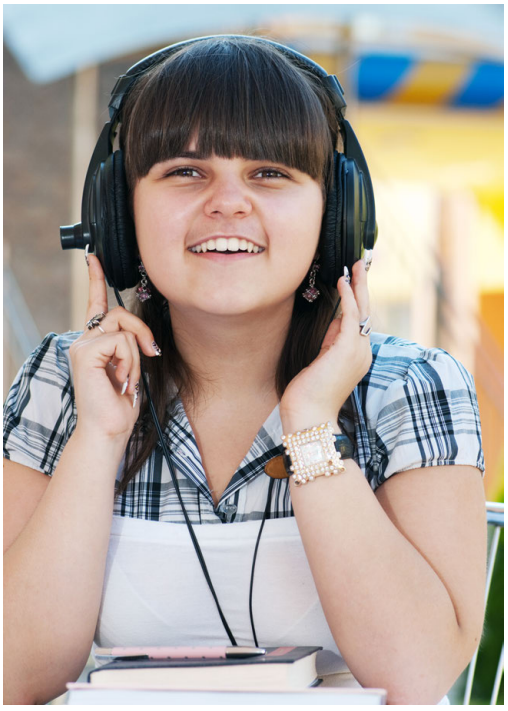
• Read textbooks aloud
• Listen to wordless background music while studying

Kinesthetic Characteristics

• Likes to use the hands-on approach to learn new material
• Is generally good in math and science
• Would rather demonstrate how to do something rather than verbally explain it
• Usually prefers group work more than others

Kinesthetic Strategies

• Take study breaks often
• Learn new material while doing something active (e.g., read a textbook while on a treadmill)
• Chew gum while studying
• Work while standing
• Try to take classes with instructors who encourage demonstrations and fieldwork



ACKNOWLEDGMENTS

Appreciation goes to the following persons who participated in the development of this support tool and our county-wide resource program staff development in-services. Thanks a million for your dedication and commitment to improving the quality of special education resource programs and services for students with disabilities.

If you have questions regarding resource program supports, please contact:

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Julie McGowen has 19 years of experience in education that ranges from Para-educator, Second Grade Teacher, Middle School and Elementary Special Education Teacher (including Severely Impaired and Medically Fragile, self-contained Cognitive Impairment program and the Resource Room program), Building Coordinator of Special Services and Director of Special Education. McGowen has been the Director of Special Education for Global Educational Excellence (GEE) for the last three years overseeing eight elementary, five Middle School, and three High School Academies. McGowen is highly organized, knowledgeable in Special Education rules and regulations, passionate about the Multi-Tiered System of Support process, has a vast toolbox of strategies for classroom management and instruction, and is a published author of Children's Historical Fiction. She is a life-long learner continuing to attend various workshops and in-services at the county and state levels. McGowen enjoys providing professional development opportunities to promote the development of district and county level teams, to transform students' lives. Mrs. McGowen holds a Masters of Education in Special Education, with an endorsement in Cognitive Impairment.

Judy Mills is a dedicated Special Education Teacher with 17 years of teaching experience. She graduated from Northern State University in Aberdeen, SD where she acquired a Bachelor's degree, with majors in Special Education and Elementary Education. She also obtains a Master's of Arts in Teaching Learning Disabilities from Madonna University in Livonia, MI. Judy has a wealth of experience in teaching students with high incidence disabilities such as specific learning disabilities and ADHD, particularly in the urban setting. Her caseloads have always consisted of multiple grade levels and disabilities each school year. In addition to teaching, Judy has played an active role in the schools she teaches in such as participating in school leadership teams, school improvement committees, facilitating RTI meetings and coordinating transition programs for students between the state and outside agencies. She has also provided numerous professional developments for her colleagues over the years in regards to special education, IEP's, and RTI. She has received training and certification from the International Institute for Restorative Practices, Non-Violent Crisis Intervention and in Youth Mental Health First Aid USA from the Mental Health First Aid National Council for Behavioral Health. Judy considers herself a lifelong learner and if she doesn't know the answer, she will find out! She is currently a Resource Teacher and the Transition Liaison between students, parents and Michigan Rehabilitation Services at Detroit Leadership Academy Middle/High School in Detroit, MI.

Whitney Briggs, a Detroit Public Schools graduate, earned her BA in Special Education Cognitive Impairments from Wayne State University. As a sister and guardian of a wonderful young man with a cognitive impairment, Whitney has spent most of her life advocating for individuals with disabilities. Whitney has taught in elementary, middle and high school resource programs within Wayne County, gaining valuable teaching experience working with students of various backgrounds and special education eligibilities. Whitney's goal is to continue to develop her teaching skills and delivery of special education services. She most enjoys figuring out where the breakdown in learning is occurring and working with students. Currently, Whitney is a Special Education teacher at Detroit Leadership Academy.

Diana Demers is a teacher consultant for the science department at PCCS where she works with students with a variety of disabilities. Diana works collaboratively with the science department to differentiate curriculum and facilitate specially designed instruction. She is currently working on reconstructing a supplemental materials website for the high school sciences. She is also working with a team to develop a post-secondary website. Diana holds a B.A. and M.Ed. in Special Education in Autism Spectrum Disorder and Cognitive Impairment.

Dr. Tiffany Cobb is a state of Michigan licensed and ASHA certified school speech/language pathologist who is in her 13th year of work. She obtained her Bachelor's and Master's Degree from Central Michigan University and her Doctorate degree from Wayne State University. Tiffany focused her dissertation on the area of fluency and her research is titled "Middle School and High School Students Who Stutter: A Qualitative Investigation of School Experiences". Tiffany has worked in various charter schools throughout the metropolitan Detroit area, and also works with adults in various settings. As a speech pathologist, Tiffany assesses, plans, and implements speech and language services to students. While working, Tiffany also provides a close look at the evaluation process of speech and language abilities through various standardized and criterion referenced diagnostic testing. She collaborates with staff and parents to discuss evaluation findings and talk out and establish goals that are appropriate. Tiffany loves working in the school setting and thrives off of seeing her students meet their individual goals.

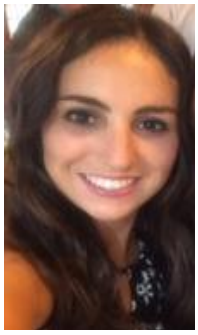
Julia Barill is an experienced educator who has been delivering resource room services to students for 20 years. Although teaching wasn't her first career, she quickly fell in love with the profession, but more specifically, with the time spent working with children who are "differently-abled." She never tires of seeing that "spark" when a new concept is learned. As a parent and a teacher, she has always considered it a privilege to be that selected role model who inspires, motivates, and instills new learning in our future "movers, shakers, and leaders," the decision makers who will impact us all. Julia earned her Bachelor's Degree at Eastern Michigan University with majors in Special Education and Elementary Education, and later earned a Master's in the Art of Teaching from Mary Grove College. Most of her teaching experience has taken place at Cesar Chavez Academy in Southwest Detroit (in the same neighborhood where she grew up). "Returning to Southwest Detroit to teach felt like coming home again," Julia reports; and she was thrilled to give back to the community in the same geographical area where she received her educational "roots." Julia currently contracts out resource room services to schools in the Dearborn area, and continues to grow professionally by being involved in School Improvement and Response to Intervention efforts.

Jenny Kisslan has 19 years of educational experience. She began pursuing her Bachelor's Degree in Elementary Education at Andrew's University with minors in ELA and Spanish. She later attended National Lewis University to earn her Masters of Education in Special Education with focus on Learning Disabilities and Emotional Impairments. Jenny began teaching soon after earning her Bachelors in Elementary Education and Spanish. After earning her Master's degree, she moved to District 7 where she has been teaching for the past 14 years in a self-contained cross categorical classroom and co teaching- doing what's best for our kids! Jenny recently earned her Educational Specialist degree in Special Education Administration from Wayne State University, and will be beginning her Educational Doctorate degree with emphasis on Personalized Competency-Based Instruction in the fall of 2018.

Catherine Griffin believes in putting the students first in all decision making processes and supporting them so they can reach their maximum potential. She has been in education for 29 years both teaching and serving in administration. She taught preschool at and attended Muskingum College, in New Concord, OH, and earned her teaching degrees in Elementary, Early Childhood and Learning Disabilities, as well as a BA in Psychology. After Muskingum, she began her career as a Special Education Teacher in Covington, Kentucky and Columbus, OH. She moved to Michigan and taught Pre-K and Special Education at Grosse Isle School District for a few years. After teaching there, Catherine moved to Summit Academy School District as one of the founding teachers. While teaching at Summit, in both Kindergarten and Special Education, she attended Mary Grove College and received a Master's Degree in the Art of Teaching. After a few years, she was offered an Elementary Administrator position at Summit Academy North School District and then moved into an administration position as the Special Education Coordinator at both Summit Academy and Summit Academy North School Districts. She has remained at Summit except for one year working for Future's Education as a Special Education Director with the EAA School District. Currently, Catherine attends Grand Valley State University and is completing her Administration and Director of Special Education coursework.

Michele Barringer is a dedicated educator with 20 years of experience. She is currently an elementary resource room teacher with the Grosse Ile Township Schools. Michele has also held positions in the district as a self-contained teacher for students of learning disabilities, a first grade teacher, and a third grade teacher. She has been active in her school Positive Behavior in Schools team (PBIS), Multi-Tiered Systems of Support (MTSS) team and has functioned as the Literacy Interventionist for her elementary building. Prior to teaching in Grosse Ile, Michele taught first grade at Cranrook Schools. Michele earned a Bachelor of Arts in Psychology and Elementary Education, focusing on child development from the State University of New York at Geneseo. She earned an Inclusion Specialist certificate as part of her Master's program at University of Michigan-Dearborn. Michele's current certifications include: elementary education, early childhood education and specific learning disabilities. Michele has always had a passion for teaching children, working as a coach, and volunteering her time to run book clubs for her school as well as clubs for her children. Her teaching philosophy focuses on connecting with children and fostering a love of reading and lifelong learning. Michele enjoys reading, gardening, baking and spending time with her family.

LaTasha Williams entered the teaching field eager to make a difference in the life of children. She understands how it feels to struggle in the classroom. She knows what it feels like to require more time or need extra help. She want children to know they can and will succeed in school. She believes in the quote, "Students don't care how much you know until they know how much you care" –Theodore Roosevelt. LaTasha is a risk taker, she enjoys taking on challenges and stepping out on faith. She focuses on solutions to problems. LaTasha graduated from Davenport University in 2004 with an Associate Degree in Business Administration. She later graduated from Marygrove College in 2009 with a Bachelor's Degree in English and in 2015 a Master's Degree in Special Education. In May 2018, she earned her certificate in, Education Specialist Program in Administration and Supervision at Wayne State University. As a teacher she believes it is her responsibility to provide her students with many resources and strategies that will help them continue to grow as a productive learner. She enjoys working with leadership, staff, volunteers, parents, and students. She feels it is important to build a partnership with her parents. Her goal is to make sure each day count.



Tara Leach is a high school Special Education teacher in the Livonia Public Schools district. She earned University with a major in Special Education, endorsed in Emotional Impairment, and minors in Biology and School Health. She was hired as an 8th grade science teacher and then moved into her current resource room and science liaison role. Tara is currently taking courses to earn her M.A and is enrolled in the Special Education Administration program at Grand Valley State University. In addition to teaching, Tara coaches four middle school sports throughout the school year. She has also been involved with Area 23 Special Olympics for over ten years as a volunteer, referee, and chairperson. Tara aspires to take on leadership roles in her district and is fueled by her passion for advocating for all students.

Jennifer Johnson-Crudup is a licensed clinical and school worker who is in her 13th year of work. She obtained a Bachelors and Masters in Social Work from Wayne State University in 2004 and 2005. She started her career working in the mental health field as Clinical Social Worker providing individual and family therapeutic services. After that time she decided that she enjoyed working with children and wanted to work in the school setting as social worker. In this role she provides individual and group therapy to students, addressing their social emotional concerns. Currently, she works for a charter school company in the Detroit Metro area.

APPENDIX 2: AWARENESS OF REGULATIONS & RULES THAT GOVERN THE RESOURCE PROGRAM

RULES TO KNOW WHEN PLANNING…

It is imperative that the special education resource program teacher is familiar with specific special education regulations and rules to support their everyday implementation of services. The two primary regulations that mandate the everyday tasks of special education providers are:

1. The Individuals with Disabilities Education Act (IDEA) is a federal law that requires schools to serve the educational needs of eligible students with disabilities.
2. The *Michigan Administrative Rules for Special Educatio*n (MARSE) are the implementing rules to federal law (IDEA) for special education in Michigan.

Here are a few of IDEA's regulations and Michigan Administrative Rules for special education to support your role of providing effective and appropriate services:

IDEA § 300.39 SPECIAL EDUCATION.

(a)General. (1) Special education means specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability, including—(i) Instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings; and (ii) Instruction in physical education. (2) Special education includes each of the following, if the services otherwise meet the requirements of paragraph (a)(1) of this section—(i) Speech-language pathology services, or any other related service, if the service is considered special education rather than a related service under State standards; (ii) Travel training; and (iii) Vocational education. (b) Individual special education terms defined. The terms in this definition are defined as follows: (1) At no cost means that all specially designed instruction is provided without charge, but does not preclude incidental fees that are normally charged to nondisabled students or their parents as a part of the regular education program. (2) Physical education means—(i) The development of—(A) Physical and motor fitness; (B) Fundamental motor skills and patterns; and (C) Skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports); and (ii) Includes special physical education, adapted physical education, movement education, and motor development. (3) Specially

designed instruction means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction—(i) To address the unique needs of the child that result from the child's disability; and (ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children. (4) Travel training means providing instruction, as appropriate, to children with significant cognitive disabilities, and any other children with disabilities who require this instruction, to enable them to—(i) Develop an awareness of the environment in which they live; and (ii) Learn the skills necessary to move effectively and safely from place to place within that environment (e.g., in school, in the home, at work, and in the community). (5) Vocational education means organized educational programs that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career not requiring a baccalaureate or advanced degree.

IDEA § 300.101 FREE APPROPRIATE PUBLIC EDUCATION (FAPE).

General. A free appropriate public education must be available to all children residing in the State between the ages of 3 and 21, inclusive, including children with disabilities who have been suspended or expelled from school, as provided for in § 300.530(d). (b) FAPE for children beginning at age 3. (1) Each State must ensure that—(i) The obligation to make FAPE available to each eligible child residing in the State begins no later than the child's third birthday; and (ii) An IEP or an IFSP is in effect for the child by that date, in accordance with § 300.323(b). (2) If a child's third birthday occurs during the summer, the child's IEP Team shall determine the date when services under the IEP or IFSP will begin. (c) Children advancing from grade to grade. (1) Each State must ensure that FAPE is available to any individual child with a disability who needs special education and related services, even though the child has not failed or been retained in a course or grade, and is advancing from grade to grade. (2) The determination that a child described in paragraph (a) of this section is eligible under this part, must be made on an individual basis by the group responsible within the child's LEA for making eligibility determinations.

IDEA § 300.321 IEP TEAM

(a) General. The public agency must ensure that the IEP Team for each child with a disability includes— (1) The parents of the child; (2) Not less than one regular education teacher of the child (if the child is, or may be, participating in the regular education environment); (3) Not less

than one special education teacher of the child, or where appropriate, not less than one special education provider of the child; (4) A representative of the public agency who— (i) Is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities; (ii) Is knowledgeable about the general education curriculum; and (iii) Is knowledgeable about the availability of resources of the public agency.(5) An individual who can interpret the instructional implications of evaluation results, who may be a member of the team described in paragraphs (a)(2) through (a)(6) of this section; (6) At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and(7) Whenever appropriate, the child with a disability. (b) Transition services participants. (1) In accordance with paragraph (a)(7) of this section, the public agency must invite a child with a disability to attend the child's IEP Team meeting if a purpose of the meeting will be the consideration of the postsecondary goals for the child and the transition services needed to assist the child in reaching those goals under §300.320(b). (2) If the child does not attend the IEP Team meeting, the public agency must take other steps to ensure that the child's preferences and interests are considered.

IDEA § 300.324 DEVELOPMENT, REVIEW, AND REVISION OF IEP

(a) Development of IEP—(1) General. In developing each child's IEP, the IEP Team must consider— (i) The strengths of the child; (ii) The concerns of the parents for enhancing the education of their child; (iii) The results of the initial or most recent evaluation of the child; and (iv) The academic, developmental, and functional needs of the child. (2) Consideration of special factors. The IEP Team must— (i) In the case of a child whose behavior impedes the child's learning or that of others, consider the use of positive behavioral interventions and supports, and other strategies, to address that behavior; (b) Review and revision of IEPs—(1) General. Each public agency must ensure that, subject to paragraphs (b)(2) and (b)(3) of this section, the IEP Team— (i) Reviews the child's IEP periodically, but not less than annually, to determine whether the annual goals for the child are being achieved; and (ii) Revises the IEP, as appropriate, to address— (A) Any lack of expected progress toward the annual goals described in § 300.320(a)(2), and in the general education curriculum, if appropriate; (B) The results of any reevaluation conducted under § 300.303; (C) Information about the child provided to, or by, the parents, as described under § 300.305(a)(2); (D) The child's anticipated needs;

IDEA § 300.114 LRE REQUIREMENTS: LEAST RESTRICTIVE ENVIRONMENT (LRE)

(a) General. (1) Except as provided in § 300.324(d)(2) (regarding children with disabilities in adult prisons), the State must have in effect policies and procedures to ensure that public agencies in the State meet the LRE requirements of this section and §§ 300.115 through 300.120. (2) Each public agency must ensure that— (i) To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled; and (ii) Special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

IDEA § 300.115 CONTINUUM OF ALTERNATIVE PLACEMENTS

(a) Each public agency must ensure that a continuum of alternative placements is available to meet the needs of children with disabilities for special education and related services. (b) The continuum required in paragraph (a) of this section must— (1) Include the alternative placements listed in the definition of special education under § 300.38 (instruction in regular classes, special classes, special schools, home instruction, and instruction in hospitals and institutions); and (2) Make provision for supplementary services (such as resource room or itinerant instruction) to be provided in conjunction with regular class placement.

MARSE R 340.1749C DEPARTMENTALIZATION OF SPECIAL EDUCATION PROGRAMS

(1) A school with more than 1 special education teacher may departmentalize. (2) Each teacher shall teach only 1 local education agency approved special education course per period. (3) Each teacher may serve more than the students assigned to his or her caseload; however, the total number of students served cannot exceed the combined caseloads of the participating teachers. (4) Each teacher shall serve not more than an average of 10 students per class period per instructional day.

MARSE R 340.1722 DISTRICT RESPONSIBILITIES

(1)The superintendent or his or her designee shall appoint a staff person to be responsible for the implementation of the individualized education program, including services provided by

other agencies. (2) The staff person responsible for the implementation of the individualized education program shall be either of the following: (a) The principal of the building where the primary educational program is provided to the student with an individualized education program. (b) Another staff person who is generally accessible to the staff and who will be working with the student. (3) Each public agency shall provide special education and related services to a student in accordance with the student's individualized education program.

APPENDIX 3: SPECIAL EDUCATION TERMS AND COMMON ACRONYMS

ADA	Americans with Disabilities Act
ADD	Attention Deficit Disorder
ADHD	Attention Deficit with Hyperactivity Disorder
ARC	Advocacy organization for persons with developmental disabilities
ASD	Autism Spectrum Disorder
AT	Assistive Technology
BIP	Behavior Intervention Plan
CBI	Community-Based Instruction
CI	Cognitive Impairment (mild, moderate, severe)
CMH	Community Mental Health
CP	Cerebral Palsy
DB	Deaf Blindness
DD	Developmental Disability
ECDD	Early Childhood Developmental Delay
ECSE	Early Childhood Special Education
EI	Emotional Impairment
ESEA	Elementary and Secondary Education Act

ESY Extended School Year

FAPE Free Appropriate Public Education

FBA Functional Behavior Assessment

FERPA Family Educational Rights and Privacy Act

HI Hearing Impairment

ICC Interagency Coordinating Council

IDEA Individuals with Disabilities Education Act

IEE Independent Educational Evaluation

IEP Individualized Education Program

IEPT Individualized Education Program Team

IFSP Individualized Family Service Plan

ISD Intermediate School District

LEP Limited English Proficiency

LEA Local Education Agency (Local School District or Public School Academy)

LRE Least Restrictive Environment

MDE Michigan Department of Education

MET Multidisciplinary Evaluation Team

MRS Michigan Dept. of Labor & Economic Growth/Michigan Rehabilitation Services =

O&M	Orientation and Mobility
OCR	Office of Civil Rights
OHI	Other Health Impairment
OSE-EIS	Office of Special Education and Early Intervention Services (state)
OSEP	Office of Special Education Programs (federal)
OT	Occupational Therapy
P&A	Protection and Advocacy
PAC	Parent Advisory Committee
PI	Physical Impairment
PLAAFP	Present Level of Academic Achievement and Functional Performance
PSA	Public School Academy (also known as Charter School)
PT	Physical Therapist
REED	Review of Existing Evaluation Data and Plan
SLD	Specific Learning Disability (means same as LD)
SLI	Speech and Language Impairment
SLP	Speech/Language Pathologist
SSI	Supplemental Security Income
SSW	School Social Worker
SXI	Severe Multiple Impairment

TBI Traumatic Brain Injury

TC Teacher Consultant

VI Visual Impairment

GLOSSARY OF SPECIAL EDUCATION TERMS

Accommodations – Changes in curriculum or instruction that does not substantially modify the requirements of the class or alter the content standards or benchmarks. Accommodations are determined by the IEP Team and are documented in the student IEP Team report.

Adapted Physical Education – A diversified program of developmental activities, games, sports, and rhythms suited to the interests, capabilities and needs of children with disabilities who may not successfully engage in a regular physical education program.

Advocate – A person that works for the rights of and needed services for a disabled individual. The person can be a parent, guardian or a professional.

Age of Majority/Transfer of Rights – When a student with a disability reaches the age of 18, all rights accorded to a parent transfer to the student. The parent and student must be informed of the transfer of rights at least one year prior to the student's 18th birthday.

Americans with Disabilities Act (ADA) – A federal law requiring accommodations for people with disabilities in the community and workplace.

Assessment – Testing or evaluation – including mental, social, psychological, physical, speech, occupational, vocational, or educational – done by school district personnel to gather information about a student.

Assistive Technology Device – Any item, piece of equipment, or product that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities. Assistive technology needs are determined by the IEP Team.

Assistive Technology Service – Any service that helps a student with a disability to select, acquire, or use an assistive technology device. This includes training with the device.

Attention Deficit Hyperactivity Disorder (ADHD) – Persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development and that interferes with developmentally appropriate social/academic functioning.

Autism Spectrum Disorder – A developmental disability significantly affecting verbal and nonverbal communication and social interaction that adversely affects an individual's educational performance.

Behavior Intervention Plan – A specific, proactive plan for managing behavior that is included in a student's IEP and is primarily for use in the school setting. It is based on a functional assessment of behavior and includes specific, measurable and positive ways to promote more functional, appropriate behavior.

Child Study Team/Student Support Team – A team of various educators in schools that meets to support the needs of students with academic, social, and behavioral concerns. The focus of the team is to provide support to classroom teachers to implement accommodations and modifications so that students can be successful in general education.

Continuum of Service – The range of supports and services that must be provided by a school district that allows students with disabilities to be provided a free appropriate public education.

Due Process – A procedure guaranteed by federal law for resolving disputes regarding special education services.

Early Childhood Special Education (ECSE) – Special education and related services provided to children from birth to age 7.

Extended School Year (ESY) – Special education and related services provided to a qualified student with disabilities beyond the normal school year in accordance with the student's Individualized Education Program (IEP) and at no cost to the parent of the child. The need for Extended Services is determined by the student's IEP Team.

Free Appropriate Public Education (FAPE) – Special education and related services are provided to students with disabilities by the Local Education Agency (LEA) at public expense and under public supervision and direction at no cost to the student's parents.

Family Educational Rights and Privacy Act (FERPA) – A federal law which gives parents and the student over 18 years of age access to and control over all education records.

Functional Behavior Assessment (FBA) – A method for gathering information to determine what purpose a behavior serves. This is used to determine an appropriate intervention for that behavior. A FBA must include both formal and informal methods of gathering information and should be conducted in a variety of settings over a period of time. This assessment must be performed before a Behavior Intervention Plan (BIP) or behavior goals can be written.

Inclusion - This is the placement of students with disabilities in classrooms with typically developing students of the same age. Full inclusion has two central features. The first is moving students with disabilities into regular education classrooms and the second is sending special education support services into those same classrooms.

Individuals with Disabilities Education Act (IDEA) – The federal law that requires school districts to provide students with disabilities with a free appropriate public education at public expense. The Act provides procedural safeguards, due process rights, as well as specific mandates regarding a free appropriate public education.

Independent Educational Evaluation (IEE) – Education evaluations of a student by an evaluator who does not regularly work for the school district. Parents who are not satisfied with the school district's evaluation can request an IEE at public expense.

Individualized Education Program (IEP) – The written plan that details the special education and related services that must be provided to each student who receives special education services. It must be reviewed and revised every year.

Individualized Family Service Plan (IFSP) – A written plan for providing early intervention services to an eligible individual and to the individual's family.

Local Education Agency (LEA) – The school district or public school academy that is directly responsible for providing special education services in a geographical area.

Least Restrictive Environment (LRE) – A federal mandate that states that to the maximum extent appropriate, a child with disabilities must be educated with children who are not disabled.

Mainstreaming – Refers to the placement of children with special needs into educational settings for typically developing children. It differs from inclusion in that the individual is expected to work on and accomplish the same goals as the typical children without using special education teachers or excessive modifications.

Modification – A change in curriculum or instruction that substantially alters the requirements of the class or the content standards and benchmarks.

Multidisciplinary Evaluation Team (MET) – A group of individuals from various professional disciplines, such as educators, psychologists, and physicians that conduct an evaluation or recommendation of a student suspected of having a disability.

No Child Left Behind (NCLB) – January 8, 2002 President Bush signed NCLB into law. It is an education reform plan making changes to the **Elementary and Secondary Education Act (ESEA**). It is looking for stronger accountability for results, increased flexibility and local control, expanded options for parents and emphasis on teaching methods.

Occupational Therapy (OT) – A related service that focuses on the development of a student's fine motor skills and/or the identification of adapted ways of accomplishing activities of daily living.

Office of Civil Rights (OCR) – An agency within the U.S. Department of Education that enforces Section 504 of the Rehabilitation Act and Title II of the ADA. OCR investigates allegations of discrimination based upon disability.

Related Service – Special education services required to assist an individual with disabilities to benefit from special education, including but not limited to: transportation, OT, PT, Speech, and School Social Work.

School Psychologist (SP) – A trained professional who assists in the identification of needs regarding behavioral, social, emotional, educational and vocational functioning of individuals.

School Social Worker (SSW) – A trained professional who supports the educational program of individuals by assisting in identification and assessment of the individual's educational needs including social, emotional, behavioral and adaptive needs; provides intervention services.

Section 504 – A section of the federal law named the Rehabilitation Act of 1973, which prohibits discrimination of people with disabilities by any entity that accepts federal funds.

Special Education – Specifically designed instruction, at no cost to the parents, to meet the unique needs of an eligible individual, includes the specially designed instruction conducted in schools, in the home, in the hospitals and institutions, and in other settings.

Speech-Language Pathologist (SLP) – A trained professional who analyzes speech and language comprehension and production to determine communication competencies and provides intervention strategies and services related to speech and language development as well as disorders of language, voice, articulation, and fluency.

Teacher Consultant (TC) – A certified special education teacher who provides support services to children with disabilities and provides consultation to the regular classroom teacher and parents. The teacher consultant does not grade, give credit or teach a regular or special education course.

Transition Services – A coordinated set of activities that promote movement from school to post school education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living and community participation. Transition goals are determined by the IEP Team usually beginning at age 14 and are based on student and family vision, preferences, and interests.

Wayne County Regional Educational Service Agency: RESA (ISD) – Wayne RESA provides technical assistance and support to the local school districts and public school academies within the county.

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NSW Centre for Effective Reading:
http://www.cer.education.nsw.gov.au/documents/249903/250184/NSWCER_WPdoc_1a_Language.pdf

Chatham County Schools RtI
https://chathamcountyrti.wikispaces.com/file/view/Reading.pdf

Focusing on Cognitive Strengths

http://www.resa.net/downloads/response_to_intervention/planning_for_student_strengths.pdf

Instruction and Intervention Planning

http://www.resa.net/downloads/response_to_intervention/instruction_and_intervention_planning.pdf

https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/dyscalculia/understanding-dyscalculia#item0

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https://childmind.org/article/not-all-attention-problems-are-adhd/

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