# **Learning Challenges:**

To help students overcome these challenges during tutoring sessions, tutors may choose to do the following:

- Ask the student about his/her strengths and weaknesses.
- Use multi-sensory materials/aids.
- Use verbal and written directions and instructions. Keep them simple.
- Use more than one example and/or demonstration.
- Use diagrams/visual demonstrations when teaching abstract concepts. For example: flashcards, flow charts, and maps.
- Create mental pictures. Visualize.
- Use mnemonic devices.
- Present material auditorily as well as visually.
- Create outlines with the student.
- Create summaries, study guides, and lists
- Review material over and over.
- Highlight key points and concepts.
- Break lengthy concepts/assignments into shorter segments.
- Put one problem or one question on one piece of paper so that the student is not distracted by various items on one page.
- Pause between ideas/concepts. Allow time for processing.
- Ask open-ended questions to help student think more deeply.
- Speak slowly and clearly. Repeat directions/concepts/explanations.
- Ask questions to check for understanding. Check for understanding frequently.
- Have the student "teach" you. Allow the student to hear his/herself explain the concepts.
- Relate concepts to a similar task or procedure already learned.
- Conduct your tutoring sessions in a quiet location without distraction.
- Students can provide oral responses rather than written ones
- Break down learning process into bite sized chunks and determine the most important steps, explain the relation of each step
- You can have the student read aloud; after the student has read the text, you can ask questions that will assess comprehension, questions that deal both with retention of content, and the student's ability to interpret, analyze, or personalize the content.

**Active Learning** for reading, comprehension and retention strategies to help with long term memory retrieval.

Students can use: CORE- Collect, Organize, Rehearse, and Evaluate strategy.

- Collecting key information- Collect the information they need to study. Collecting will also keep them engaged in the learning and study process.
- 2. Organizing that information into effective study materials- organizing the information by creating study guide, flash cards, re-writing of notes, highlighting notes, Quizlets etc.

- Rehearsing information and skills for future use- Rehearsing/repeating the information using Quizlet, quizzing yourself, summarizing the information, visualizing what they need to understand.
- 4. Evaluating how well you have learned- Create a quiz, review information, write out what you know. This last step will be the last active learning piece to decipher whether you comprehend and can recall the information.

## Other strategies:

**Chunking-** This facilitates easy retrieval of the information as students have to memorize the chunks instead of the individual information. These chunks also act as cues, allowing for easy recollection of information.

- 1. Encourage student to break the reading into bite-sized sections.
- 2. If the reading seems daunting, break it into smaller, more manageable pieces.
- 3. And when their attention wanders, stand up and take a quick break.

## **Active Reading and Scanning Text**

- 1. Scan title, headings, pictures & graphs-Have student turn headings into questions using words like what, why, and how. The student should then read to find the correct answer to those questions. Student should highlight the answers to questions formulated from headings.
- 2. Re-read 1<sup>st</sup> and 2<sup>nd</sup> sentences in a paragraph; these are the topic sentences of each paragraph. Encourage student to become an active rather than a passive reader. The student should learn to talk to himself/herself. Students should ask questions such as:
  - "Why am I reading this?"
  - "What does this topic have to do with topics discussed earlier?"
  - "What principle do these problems illustrate?"
  - "How can I put this in my own words?"
- 3. Identify topic and main idea- Encourage students to develop reasonable and logical points within the text at which the student will stop and check comprehension. Using these checkpoints, the student may want to summarize what has just been read and ask what is the topic and main ideas of the reading/lesson.
- 4. If words seem to "move around" in the text, show student how to use an index card to guide reading.

## Visualize

- 1. Visual organizing Visual organizing is an alternative way to organize information and can help with improving reading comprehension. **Using visual organizers like mind maps** can help a student see their thoughts rather than have all that information jumbled up in their head.
- 2. Create mental images of the characters, settings, and events in the text.

# **Memory Improving Strategies**

## A. Rehearsing and Memorizing Study Materials: The Big Picture

- 1. Rehearsal- efforts to remember something
  - a. Elaborative rehearsal uses deep processing that strengthens both understanding and remembering. This is done by focusing on meaning, showing relationships between ideas, and connecting new knowledge with old.
  - b. Rote rehearsal- It is more remembering than understanding. The process of memorizing by sheer repetition.
  - c. Rehearsal strategies perform double duty. As you rehearse, you also get feedback that allows you to EVALUATE your learning. It prompts you to COLLECT more information, ORGANIZE it differently, and/or keep REHEARSING.

# B. Strategies to improve rehearing and memorizing study materials.

- 1. Form a study team
- 2. Create a study schedule
- 3. Assemble all study materials

## C. While Rehearsing and Memorizing Study Materials

- 1. Review your study materials.
  - a. Review a section
  - b. Ask yourself "what are the key concepts."
  - c. Look back for answers

#### D. Recite your study materials

- 1. Reciting is similar to reviewing but it is done aloud.
- 2. Use Cornell study sheets
- 3. Test yourself
  - a. Taking a practice test is a great way to both Rehearse and Evaluate your knowledge.
- 4. Hold a study team quiz
- 5. Study three-column math charts
- 6. Study with flashcards
- 7. Memorize by chunks
  - a. You will be engaged in elaborative Rehearsal -memorizing words with a full understanding of their meanings.
  - b. Memorizing words like a parrot is Rote Rehearsal.
  - c. 8. Memorize with acronyms-which is a word made from the first letters of other words that you want to remember.
    - a. Example: DAPPS (a quality for effective goals) acronym for  $\underline{D}$  ate  $\underline{A}$  chievable,  $\underline{P}$  ersonal,  $\underline{P}$  ositive,  $\underline{S}$  pecific
- 9. Memorize with acrostics
  - a. sentence acronyms- Taking the first letter of every word you can create a sentence.

- b. Example: Music students can recall the notes on the lines of a musical staff (E-G-B-D-F) by the sentence Every Good Boy Does Fine.
- 10. Memorize with associations-when you associate something new with something you already know, the new information is easier to recall.
  - a. Example: If you want to remember the name to your new math instructor, Professor Getty; you could associate his name with the Battle of Gettysburg that you studied in American history.
- 11. Memorize with the loci (pronounced low-sigh) technique- is a technique where you associate items you want to memorize with familiar places.
  - a. Example: Think of a place, such as your living room and place items around your living room that you need to remember. You could have your television on to the news where Amy G. Dala is speaking and you needed to memorize Amygdala as parts of the brain.

# E. After Rehearing and Memorizing Study Material

- 1. Review, review, review
- 2. Teach what you learn

#### **Mnemonics:**

**1. Acronyms:** initial letters form a meaningful word. These are a cuing strategy, not a learning strategy. Acronym examples:

HOMES- the Great Lakes: Huron; Ontario; Michigan; Erie; Superior

PEMDAS- the order of mathematical operation: Parenthesis; Exponents; Multiplication; Division; Addition; Subtraction.

#### 2. Rhythm/Music and Rhyme:

These are powerful aids to memory because the jingle has frequent repetition. Music is a powerful memory techniques. Research has convincingly demonstrated that words are more easily recalled when they are learned as a song rather than speech. One example is of children who have learned the states in alphabetical order using the "50 nifty states song." Other Examples:

In fourteen hundred ninety-two, Columbus sailed the ocean blue.

I before E, except after C

**3.** The story method- is the most easily learned list mnemonic

List: vegetable, Instrument, college, carrot, nail, fence, basin, merchant, scale, goat.

## **Story:**

A VEGETABLE can be a useful INSTRUMENT for a COLLEGE student. A CARROT can be a NAIL for your FENCE or BASIN. But a MERCHANT would SCALE that fence and feed the carrot to a GOAT.

As you start inventing mnemonics of your own, keep in mind three more principles: **imagination**, **association** and **location**.

- **a. Imagination**: create images that are vivid, engaging, and rich enough to jog your memory. You could be visualizing a real situation in order to remember and re-use it, or inventing one that will help you write, say or do something in the future.
- **b. Association**: make the most of your brain's habit of linking ideas. Separate pieces of information can be linked so that you remember them all. That might help you remember all the items to pack for a trip, for example. Or, two ideas can be paired, so that one thing reminds you of another. Using that strategy, you might think of your colleague holding a microphone to recall his name is Mike.
- **c. Location (aka Loci)**: use your memories of real-world places to help you remember new material. Since you can easily remember the layout of your home, why not use the rooms to "hold" items from the list you're trying to learn?

## 4. Chunking

To remember a number like: 081127882

It is easier to chunk it into sections

081 127 882

Pedagogical strategies, Online Strategies, and Learning Disabilities (LD)

## A. Executive Functioning Problems



## What is Executive Functioning?

Executive functioning describes a set of higher-order mental skills that help you to get things done. The frontal lobe is the area of the brain that controls executive functioning skills. Deficits in executive functioning skills make it difficult to gather information and structure it for evaluation, as well as difficulty taking stock of your surroundings and changing your behavior in response.

While some adults may have learned tricks or strategies to help them compensate, many continue to fail to meet their daily responsibilities and experience trouble at work and at home.

There are three main areas of executive function. They are:

- 1. Working memory
- 2. Cognitive flexibility (also called flexible thinking)
- 3. **Inhibitory control** (which includes self-control)

Executive function is responsible for many skills, including:

- Paying attention
- Organizing, planning, and prioritizing
- Starting tasks and staying focused on them to completion
- Understanding different points of view
- Regulating emotions
- Self-monitoring (keeping track of what you're doing)
- Analyze a task
- Plan how to take on the task

- Organize the steps required to carry out the task
- Create timelines for completing the task
- Use flexibility to adjust for changes if needed to complete the task
- Complete a task in a timely fashion and/or meet a deadline

## Signs there may be deficits in executive functioning skills:

- Not being able to manage time well, difficulty meeting deadlines or goals and determining the amount of time that has passed or is necessary to complete a task
- Difficulty organizing and planning
- Trouble paying attention
- Trouble switching focus and shifting between activities
- Not being able to remember details
- Misplacing and losing possessions, paperwork, etc.
- Difficulty delaying response or withholding a response
- Difficulty prioritizing work or responsibilities
- Difficulty self-monitoring behavior, progress, and emotions

## What causes trouble with Executive Functioning?

Some people are born with weak executive function. People with ADHD, anxiety, depression, Autism Spectrum Disorder, or learning disabilities often have executive functioning weaknesses.

# What can be done to improve executive functioning skills?<sup>2</sup>

A therapist, coach, counselor, teacher, or school psychologist, learning disability specialist, and self-awareness can help to teach strategies and self-awareness and increase executive functioning skills.

### B. Working Memory weakened with learning disabilities.

#### •Short-term memory is responsible for 3 operations:

- 1. **Iconic**, which is the ability to store images.
- 2. **Acoustic**, which is the ability to store sounds.
- 3. **Working Memory**, which is the ability to store information until it's put to use. For some scientists, working memory is synonymous to short-term memory, but truth is that working memory is not only used for information storage, but also for the manipulation of information. What's important is that it's flexible, dynamic and makes all the difference in successful learning.

#### •Long-term memory is responsible for 3 operations

1. **Encoding**, which is the ability to convert information into a knowledge structure.

- 2. **Storage**, which is the ability to accumulate chunks of information.
- 3. **Retrieval**, which is the ability to recall things we already know.
- •Researchers have long regarded working memory as a gateway into long-term storage. Rehearse information in working memory enough and the memory can become more permanent.

### C. Rehearsing and Memorizing Study Materials: The Big Picture

- 1. Rehearsal- efforts to remember something
  - a. Elaborative rehearsal uses deep processing that strengthens both understanding and remembering. This is done by focusing on meaning, showing relationships between ideas, and connecting new knowledge with old.
  - b. Rote rehearsal- It is more remembering than understanding. The process of memorizing by sheer repetition.
  - c. Rehearsal strategies perform double duty. As you rehearse, you also get feedback that allows you to EVALUATE your learning. It prompts you to COLLECT more information, ORGANIZE it differently, and/or keep REHEARSING.

## **D.** Common Learning Disabilities

- <u>Dyslexia</u> a language-based disability in which a person has trouble understanding written words. It may also be referred to as reading disability or reading disorder.
- <u>Dyscalculia</u> a mathematical disability in which a person has a difficult time solving arithmetic problems and grasping math concepts.
- <u>Dysgraphia</u> a writing disability in which a person finds it hard to form letters or write within a defined space.
- <u>Auditory and Visual Processing Disorders</u> sensory disabilities in which a person has difficulty understanding language despite normal hearing and vision.

#### E. What is Dyslexia or Learning Disability

1. Trouble with written expression is an issue with language, like dyslexia is. But it doesn't necessarily impact how well people express themselves when speaking. People with written expression disorder might tell you a great story that's well organized and detailed. But when they try to write it out, that's when they run into trouble.

When people struggle with written expression, <u>it can show up in different ways</u>. Here are some things you might see in their written work:

- Words that are misused or that have the wrong meaning
- The same words used over and over
- Basic grammar mistakes, like missing verbs or incorrect noun-verb agreement

- Sentences that don't make sense
- Disorganized essays and papers
- Written work that seems incomplete
- Missing facts and details
- Slow writing and typing

### There are behavioral signs, too. These include:

- Making excuses and avoiding writing assignments
- Complaining about not being able to think of what to write or not knowing where to start
- Sitting for a long time at a desk without writing
- Finishing a writing task quickly without giving it much thought

### **Suggestions ang Strategies:**

### F. Establish a system of communication.

- 1. Office hours, email, Google Voice number, Canvas, and Zoom communication.
- a. instructor can solicit input and feedback from students. Example- what is needed to learn or succeed.
  - b. let the students know your preferred way to communicate with you.
  - c. provide feedback
  - d. check students' understanding of the learning environment and expectations.
  - e. account for anxiety
- 2. Students with learning disabilities will need multiple ways of accessing curricular content.
  - A. One of the most important is access to Zoom recorded lectures
  - b. Quizzes and exams with all question on the screen. This will allow students to go back to tougher questions, preview questions, review the questions, and review answers for submitting.

## **G.** Organization and Digital Environments:

1. The first week of classes.

Canvas- Do a tour of your Canvas page. Do a possible hunt for certain things in Canvas as practice to help understand use.

- 2 Keep it simple with consistency in Modules. Try not to add things last minute or something that is only use once.
- 3. Weekly schedules to help with students' time-management.
- 4. Sharing copy of slides, notes, lessons with students.
- 5. If possible, post recorded lectures, transcripts, PowerPoints.
- 6. If possible, quick how to videos.
- 7. Keep lectures short for attention span, working memory, digestible chunks and Zoom fatigue.
- 8. Breakout rooms have a clear and guided (step by step) instructions. It is an awkward environment, and some students really dread communicating in this way.
- 9. Make yourself available if students have questions.
- 10. Personalize communication with check in's, enquiring emails, and Starfish Kudos or Alerts.
- 11. Continue to try to communicate with students that ghost you or stop showing up. Students are struggling and might be embarrassed with their struggles, and they may just have trouble with the online platform.
- 12. Small gains will help students in the future.
- 13. Think about giving students different options to turn in assignments, learn the material, or different ways to show their knowledge of material. For example, they might take a quiz, write an essay, or turn in a project.

### H. Instructor interactive lecturing, studying strategies, and teaching:

- 1. **Active Learning-** Activities that students do to construct knowledge and understanding. Create activities to promote reflection on learning.
  - a. Activity to ask students what was the most challenging for you in the material
  - b. What was the key concept?
  - c. What would they like to know?
  - d. Promote and facilitate group discussion
  - e. Use Polls to start discussions and participation
  - f. Pause lectures and ask for student reflections
  - g. Ask students to reflect on what they learned
  - g. Ask students to elaborate on their thinking by providing explanations, evidence, or clarifications. Discussions, or add ideas
    Suggested probing questions:
  - What makes you think that?
  - Please give an example from your experience.
  - What do you mean?

2. **Active Reading-** reading with the determination to UNDERSTAND and EVALUATE. Actively and critically engaging with the content can help the comprehension and retention.

#### Instruction:

- a. Create open book quizzes
- b. Create open book assignments
- c. Assign different student's "chunks" of reading material to outline and then present in class or to a small group

### Suggestions to share with students:

- a. Read aloud/think aloud, clarify, summarize, highlighting, and make predictions.
- b. Visualize-picture things in your mind as you read. Describe images to yourself as the author describes them to you.
- c. Create an outline or a study guide.
- d. Test yourself
- 3. **Chunking-** Chunking details and information helps to overcome short-term memory capacity limitations, allowing the brain to process more items into long-term memory. If you can store it in your short-term memory long enough, the information can transition to long-term memory.
- Instructors can chunk out assignments or students can chunk as a study/comprehension tool.
  - a. Break the reading or study material into bite-sized sections.
  - b. If the reading seems daunting, break it into smaller, more manageable pieces.
  - c. Organize the information into sections
  - c. If attention wanders, stand up and take a quick break.

### ••• Student Strategies Suggestions:

- A. Strategies to improve rehearsing and memorizing study materials.
  - 1. Form a study team
  - 2. Create a study schedule
  - 3. Assemble all study materials

## B. While Rehearsing and Memorizing Study Materials

- 1. Review study materials.
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  - c. 8. Memorize with acronyms-which is a word made from the first letters of other words that you want to remember.
- a. Example: DAPPS (a quality for effective goals) acronym for <u>Date Achievable</u>, <u>Personal</u>, <u>Positive</u>, <u>Specific</u>
- Or, HOMES- the Great Lakes: **H**uron; **O**ntario; **M**ichigan; **E**rie; **S**uperior.
- d. Create a words- Example: music students can recall the notes on the lines of a musical staff (E-G-B-D-F) by the sentence Every Good Boy Does Fine.
- 10. Memorize with associations-when you associate something new with something you already know, the new information is easier to recall.
  - a. Example: If you want to remember the name to your new math instructor, Professor Getty; you could associate his name with the Battle of Gettysburg that you studied in American history.

### I. After Rehearsing and Memorizing Study Material

- 1. Review, review, review
- 2. Teach what you learn

## J. Visualization- to learn and memorize/retain.

- It is easier to remember images than verbal and written word.
- 1. I can easily see in my mind's eye the homes that I have lived in during my life (including the interior rooms), even though I might not be able to remember all the addresses and phone numbers.
- 2. A favorite movie or scene can work to "visually place" information needed to remember.

Example: The Wizard of Oz is a classic and colorful movie. Students can use the yellow brick road as a "study road." The student can be the Dorothy character, and the yellow brick road can have a start line. The student can start down the road and meet the scarecrow who is holding 3-5 items they need to memorize and comprehend. Then, the student will visually go back to the start line, and then start down the road and visually see the scarecrow and items for the second time. The student will go to the next character, Tin Man, and visually see him holding 3-5 items they need to memorize and comprehend. Again, back to the start line and repeated with other characters and

several repeats down the yellow brick road. This image will stay in their minds and into long term memory.

## K. Writing:

Some of these strategies are things that you probably already do in your classroom--they benefit all kinds of learners. Some also require fairly simple additional accommodations for students who do not do well in standard classroom environments.

### Classroom activities/set-up:

- Provide written copies or detailed outlines of lectures or points made in class
- Be willing to break the class itself up into shorter activities (in other words, change gears once or twice to re-stimulate attention spans)
- Speak clearly, slowly, and with expression
- When giving a lecture or an assignment, offer the students several forms of the material. You might refer to an outline on an overhead as you speak, and also provide written copies of the assignments/materials (in other words, provide both verbal and written versions)
- Speak facing the class
- Avoid calling on students without warning
- Explain technical or new vocabulary
- Start the class by reviewing the last class and giving an overview of what you are going to cover today. Then, at the end of the class, review the main points you covered
- When a student asks a question that requires you to repeat something you already said or was already in the reading you assigned, repeat the information patiently

#### Assignments:

- Break tasks into smaller parts, or help the student do this
- Provide students with examples of satisfactory and unsatisfactory work, with explicit reasons and criteria
- Leave space for notes on handouts so that they are easy to read, and so that students can write notes on the margins
- Try to allow students with LD both written and verbal feedback on assignments
- Allow for alternative measures; in other words, if a student has extreme difficulty with collaborative work, allow her to work alone, etc. If you have noticed that a student has particular success with one type of activity, you might encourage the student to use this more often
- Provide students with a few prompts or questions that will guide their reading of a new text

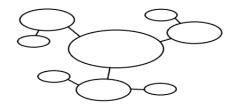
• If you assign a reading, be sure to cover it in class; talk about the main points, and ask the students for their responses to the assigned questions/prompts. One effective device is to have them respond to the readings in journals or on notecards.

## **Strategies for LD Students in Writing Classrooms**

- Keep ONE calendar in which to record your assignments and due dates
- Set realistic goals for yourself
- Set a weekly timetable for yourself, and include the time you need to grocery shop, eat, do laundry, etc. Give yourself more time than you think you need to complete your assignments
- Attend all classes
- Have one or two people read through your final draft
- Use a 3-ring binder with loose-leaf notebook paper and colored notebook dividers in order to separate the different assignments you are working on in the class. Use a separate binder for each class
- Create a checklist for each assignment you do. Include on this list all of the requirements for the assignment, and then go through each category when you have finished the assignment
- Try both recording the class and taking notes
- Take some time after your class to review what was covered and the assignments given
- Make note of any questions you have about the material in the margins of your notes
- Pick a place in the classroom where you can see the board clearly, hear the instructor, and where you are not likely to be distracted
- If you don't understand the purpose/objective of an assignment, talk to the instructor before trying to start it
- If you are having trouble keeping up even after using the above compensatory strategies, perhaps re-assess your academic load

#### L. Important Writing Strategies in the writing process:

- 1. Students with learning disabilities need more assistance in generating ideas, organizing ideas, synthesizing and summarizing information.
  - ➤ Students with learning disabilities may have difficulty connecting new knowledge to prior knowledge, identifying main ideas, developing supporting details, and organizing information by topic.
  - ► Graphic organizers or Brain Maps are one an effective way for students to identify main ideas, organize thoughts, create a thesis, topic sentences, paragraphs. Brain amps help students organize their knowledge visually.



- 2. Assisting with editing and proofing papers is a service that sometimes treads the "gray" area. Student's Learning Disability do not easily see or find their mistakes when it comes to the mechanics of sentence structure, spelling, punctuation and/or grammar.
- 3. While a tutor/instructor should not independently correct mistakes, tutors/instructors can be helpful in assisting students by underlining areas of difficulty to focus attention, alerting students to possible categories of correction (its an error related to punctuation, grammar, capitalization, spelling, paragraphing etc.), or offering alternatives for selection on the premise that some students cannot generate alternatives but can recognize correct format given a choice (do you think it might sound/look better this way, or this way?)

### 4. Writing: Student Suggested Step-by-Step

- 1. Discuss writing assignment with instructor if you need any clarification. Be certain that the point of the assignment is clear and begin to develop thoughts on the subject.
- 2. Mind map your thoughts.
- 3. Outline your essay.
- 4. Write the first draft without concern for grammar, spelling and punctuation. (This can be hard for the perfectionist student by the way!)
- 5. Set up an appointment with the instructor/tutor and go through paper line by line for grammar, spelling, punctuation and organization of ideas.
- 6. Rewrite assignment with corrections.

#### M. Reading Strategies

- a. Scan
- 1. Scan title, headings, pictures & graphs.
- 2. Re-read 1<sup>st</sup> sentence in a paragraph
- 3. Identify topic and main idea
- b. Question
- 1. Ask questions before, during, & after you read.
- 2. Why? When? How?
- 3. Write questions ---- and answers

- c. Combine -Add new information to what you already know.
- d. Notes
- 1. Take notes and highlight on the reading.
- e. Visualize
- 1. Create mental images of the characters, settings, and events in the text.
- 2. Create a movie in your head based on the information in the text.
- f. Summarize: Summarize the main idea, supporting points, and parts of the story.
- 1. This is about.....
- I learned ......
- 2. Examples:
- Read a paragraph, then write a sentence summarizing the main point that paragraph conveys.
  - g. Try to explain aloud what you have been reading.
  - h. Chunking
  - 1. Break the reading into bite-sized sections.
  - 2. If the reading seems daunting, break it into smaller, more manageable pieces.
  - 3. And when your attention wanders, stand up and take a quick break.
  - i. Visual strategies-building working memory and long term memory-
  - j. Activities and questions to promote critical thinking
  - 1. Describe connection between current lecture and their life outside the classroom.
  - 2. Describe personal bias that might affect your interpretation of the material presented today.
  - k. Mind Maps-visual representations of relationships between concepts.
  - I. Challenge students to create their own test question. This approach helps students consider what they know as well as implications of the student learning goals.
  - m. Decision making activities- Imagine that they are policy makers and they need to justify tough decisions.



# **Tutoring Students with Disabilities**

Here are some helpful tips to keep in mind when tutoring students with disabilities.

Your student is your best resource! Ask him/her what tutoring strategies work best!

## **Mobility Disabilities**

Choose a location that is accessible for the student. The location should have tables which are high enough for a wheelchair. The student should also be able to move around the room easily.

#### **Learning Disabilities or Attention Deficit Disorder**

Students with learning disabilities or attention deficit disorder may have the following challenges:

- See letters reversed or they may hear only part of a story or word.
- Poor organizational skills, including organizing thoughts on a page and time management skills.
- Difficulty with short-term memory or difficulty remembering names, dates, or a word that is needed to tell a story.
- May take longer to read than other students. Student may have to go back two or three times to understand what was read.
- May appear in a state of confusion.
- Difficulty with pronunciation or spelling.
- Focused one day but not focused the next day.
- Take more time to start and complete tasks.
- Difficulty recalling common words; uses hands a lot and calls things: "What-cha-ma-cal-it" or "Thing-a-ma-jig".
- Lack self-confidence.
- Ask the same questions over and over.
- Slowed processing of information: needs "think time" to respond to questions, to retrieve information or to solve problems.

To help students overcome these challenges during tutoring sessions, tutors may choose to do the following:

- Ask the student about his/her strengths and weaknesses.
- Use multi-sensory materials/aids.
- Use verbal and written directions and instructions. Keep them simple.
- Use more than one example and/or demonstration.
- Use diagrams/visual demonstrations when teaching abstract concepts. For example: flashcards, flow charts, and maps.
- Create mental pictures. Visualize.
- Use mnemonic devices.
- Present material auditorily as well as visually.
- Create outlines with the student.
- Review material over and over.
- Highlight key points and concepts.
- Break lengthy concepts/assignments into shorter segments.
- Put one problem or one question on one piece of paper so that the student is not distracted by various items on one page.
- Pause between ideas/concepts. Allow time for processing.
- Speak slowly and clearly. Repeat directions/concepts/explanations.
- Ask questions to check for understanding. Check for understanding frequently.
- Have the student "teach" you. Allow the student to hear his/herself explain the concepts.
- Relate concepts to a similar task or procedure already learned.
- Conduct your tutoring sessions in a quiet location without distraction.

## **Deaf or Hard of Hearing**

- Students who are deaf or hard of hearing have preferred forms of communication. They may rely on American Sign Language (ASL) or they may use visual cues and lip read to communicate.
- When you are speaking to this student, face the student directly. Avoid blocking your mouth with your hands. If an interpreter is present, he/she will sit next to you so that the student can see both of you clearly.
- Make sure you have the student's attention before speaking. A tap on the shoulder or wave of the hand can get the student's attention.
- Speak the same way to a student who lip reads as you would to any other student.
- Use visual aids to support what was said. If you are talking about something on a page in a book, point to the page so that the student understands the context of your speech.
- Verify the student's comprehension of a concept by asking him/her to explain it to you. If a student does not understand what was said, rephrase it. Certain words can be more difficult to lip read than others.
- Since the student's first language may be ASL, the student may struggle with writing. ASL does not include many spoken English words; therefore, the student may have many of the same challenges as a student who is learning English as a second language.
- Conduct your tutoring sessions in a quiet location without distraction.
- Refrain from using sarcasm. Students who are hard of hearing may not understand it.

#### **Blind or Low Vision**

- Try to be consistent in a meeting location so that the student is able to find you easily.
- Keep in mind that many students who are blind/low vision require materials in alternate format (i.e. taped, Braille, enlarged). If you plan to provide additional information, talk to the Disability Resource Center (DRC) about providing it in the proper format for the student.
- If the student has low vision, use big, bold letters when writing something down. Watch the contrast, too. Some students may have difficulty reading words on different backgrounds. Consider using colored paper and colored pens to figure out the best contrast for the student.
- If you refer to information that is in the book or on a sheet of paper, read the information to the student.
- Rich verbal descriptions are extremely important. Verbalize everything you write down or read. Describe pictures, illustrations, graphs in detail.
- Use very specific language. Avoid vague terms or phrases, such as, "the chair is over there". Be very specific! Encourage students to let you know if your description is too vague or if they are having difficulty understanding.
- Be open to exploring new equipment with students.
- Be aware of possible problems with lighting or noisy backgrounds, so they do not interfere with the student's ability to learn.

## Strategies for Working with Students on the Autism Spectrum (Neuro-atypical)

- **Refer and connect.** These students may need exceptional supportive services so try to get them connected with others quickly. They may also need help both scheduling and following through on appointments—this is a population where you may need to *make* the first appointment for and literally walk them to our office. These students may also tend to isolate themselves, so consider ways to connect them to others with similar interests or issues.
- **Structure.** These students do much better with things as a *known* quantity. Encourage schedules and guidelines. Also, as the unknown can cause stress, encourage an alternative plan if the first one doesn't work out so well.
- **Quiet and private spaces**. These students can be overwhelmed easily. Consider places on campus where they can calm down or be solo if needed.
- Address abnormal or disruptive behavior and ask about ways to deal with this...don't just ignore it. Students in this population may need to be told that if they are having tic behavior (spinning, making noise or perseverating on something), they should leave where others are.
- Allow some time for "oddities". (E.g., a student may need to tell you every license plate number in the parking lot before getting to the heart of the matter, especially under stress. Let them do this for some time, but cue them know when to move on.)
- Consider alternative/calming ways of interaction:
- 1. Provide information in more than one modality: verbally, visually and in writing.
- 2. Consider non-direct "gentle" forms of contact

- Sitting next to a student instead of face-to-face
- Lower voices
- Short, brief questions

#### **Communication:**

- 1. These students will need you to be clear.
- 2. Expect to follow-up often and be repetitive in your expectations.
- 3. Be very concrete—provide specific steps for things. "The first thing you should do when we meet is to take out your list of question."
- 4. Give student a list of the points you would like to discuss during follow-up appointments. Allow them to do the same.
- 5. Check for understanding. "Tell me in your own words or write down for me what we just discussed."
- 6. Sometimes, this population is known as being overly honest or direct.

Any questions or concerns please contact:

Leigh Ann Van Dyke M.S. LLPC · Palomar College-Disability Resource Center

• (760) 744-1150 Ext. 2598