



The Challenge of Combining Competing Input in the Classroom

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Due to central nervous system dysfunction, individuals with an autism spectrum disorder complications related to movement difference can occur. One aspect of movement difference (see *Movement Difference: A Closer Look at the Possibilities*, www.iidc.indiana.edu/irca) is the incredible challenge people with ASD may experience 'combining' all of the input their 'dynamic system' (central nervous system) receives and must interpret on a minute by minute basis. Most people take for granted the ability to pull apart, synthesize, and utilize only the necessary input/information to successfully navigate through a day in school or elsewhere. However, imagine this scenario:

You are an individual on the autism spectrum who also experiences movement difference challenges, specifically, 'combining', synthesizing and utilizing information. You are sitting in the back of a classroom near the windows and heaters, feeling bored and uninterested in the lesson. The walls are covered with posters, maps, and student art, mobiles are hanging from the lights, the fluorescent lights are humming, students are whispering, the radiators are steaming, people are walking in the hall, whirring sounds are coming from the computer, your stomach is growling because you are hungry and thinking about lunch, you feel your scratchy sweater on your arms, you smell the unpleasant odor from the student next to you, you see all the posters on the walls, your classmates are in brightly colored sweaters and sweatshirts, the colors from the sunlight on the windows and the sights outside are bright and colorful, you feel your bottom becoming sore from sitting so long, and realize you are really hot and uncomfortable, and need to move. Suddenly, the teacher calls on you to answer a question related to a word she is pointing to on the board that you can barely see because you are seated in the back and have been a little distracted!! This is what it might be like to experience the world when you have autism and experience sensory processing issues. Think of how often this scenario can happen in one day!

Students with autism spectrum disorder and other disabilities can experience these types of distractions and, for some, discomforts on a regular daily basis both in and out of school. They are often seen as inattentive, distracted, or otherwise problematic. The real problem is the lack of understanding potential sensory or movement difference issues as support people, as well as the inability of many who experience these challenges to express them clearly to others.

What accommodations might support this individual to be more involved and successful in the classroom? Accommodations can be made to the environment, to the materials and activities, or to the way instruction is given. The following are some ideas to consider.

Environmental Accommodations

- Avoid seating the student with ASD in the rear of the class. Place them up front and close to the action and discussion.
- If they are light sensitive, seat them away from the bright windows.
- If they are noise sensitive, seat them away from the door or hallway noise.
- Use carpet squares to mark spots to sit and tape to mark spaces to stand in during P. E.
- Be sure their feet can touch the ground when they are in a chair or desk for more stability. Use a box if necessary for them to rest their feet upon.

- Have a cubby or quiet area for the student to use for seat work when needed. This would provide a quiet, non-visually stimulating area to allow better concentration.
- Have a rocking or beanbag chair available to support calming strategies.
- Keep the classroom and work area organized and clear to eliminate clutter.

Material or Activity Accommodations

- For preschool children in circle time, have extra materials such as the calendar, book, and song sheets for them to look at as the teacher reads.
- For school age children, use a dry erase board at their seat to copy any and all board work. Instead of having them look up at the board all the time utilize the paraeducator or a peer to copy down the board problems or words on the dry erase board so, once again, the work is directly in front of the student with ASD. Or, have a pre-printed page with the work on it and give it to the student as the discussion ensues. Once again utilize support from paraeducator or peer to keep on task.
- Larger print on the page may help keep the words from all flowing into one another for those with visual challenges
- Using an index card, cut a 'box' out that would limit what the student sees on the page during a reading lesson or in math. This cut out card can be used in all classes to help the student focus on one line or problem at a time.
- Allow the student to have a number line on his/her desk to help with math problems; or use counters such as chips, paper clips, or tiny bear figures to provide visual input for simple math problems.
- Make sure to utilize the interest areas of the student to keep him/her involved in the activities. Everyone learns better if lessons are somehow connected to an interest area. If the student likes dinosaurs or the solar system, work that topic into the day, even if it is for a reward.
- Everyone needs breaks. Build breaks into the day for students who have trouble sitting, listening for long periods of time, or who simply require time away from stimulation.
- Anytime a student has to wait and has nothing to do to occupy their minds or hands, that student will create or do something that interests him/her to fill the void. Therefore, plan for these times by creating a bin of favorite activities that the student can be directed to during down times, or allow them to read a book of their choice, for smaller children, sing favorite songs or create an impromptu spelling or math bee. Simply giving students something to do can reduce anxiety and challenging behaviors.
- For students who are not verbal, it is imperative that an alternative, augmentative means to communicate is introduced and utilized consistently. If these students do not have a means to communicate, they will use their behaviors. Speak with your speech and language pathologist to determine the best augmentative means available and also see Linda Hodgdon's book, *Visual Strategies to Improve Communication*.
- To help alleviate any anxiety regarding how long students may have to work on assignments or sit in groups etc, visual timers can be helpful. There are a variety of timers available, one visual timer is called a Timed Timer and can be found on the internet.
- Some students have trouble knowing how to move their hands to hold a pencil or pen. Their grip is awkward. An occupational therapist may be able to provide a student with grips that slide over the pencil and assist the grip. That way the student can focus on forming the letters instead of trying to hold the pencil, think of the letters, and move his arm and hand to write the letters. It can eliminate one of the input messages.
- If handwriting or printing is too challenging or is illegible, allow the student to do his work on a computer. This allows the student to do the same activities and for their work to be legible. It may take some time, but it is an accommodation that is appropriate for some students.

Interactive/Instructional Accommodations

- Some students with autism spectrum disorders who experience challenges with input, recoil from any sort of

physical touch. As teachers, we often touch our students, even incidental touches as we pass them in their seats. This would not be a gesture that some students with ASD appreciate. Therefore, it would be wise to limit the amount of physical touch that is offered, and if it has to be offered, let the student know the touch is coming before it happens.

- Instead of simply calling on a student, as described in the opening scenario, work out a system with them so they have a warning prior to being called upon. The warning can be as obvious as saying, "Will, I am calling on Jim for question number 5 and then I will want you to answer question number 6. Get ready." Or as a teacher you could tell the student that you would look at them and walk toward them before you asked them a specific question. This would, of course, have to be worked out with that student ahead of time in order to avoid any additional anxiety.
- Many students with ASD need a longer time to process any sort of verbal or physical incoming information. It will be important to honor their needs and allow them time to hear or feel the information, think about the response needed, and then find the words or movement needed to fulfill the request and finally act. That may take time, so in some instances, it may be that the teacher needs to move on and then come back to the student with ASD to get their response.
- When providing support as a teacher or paraeducator, avoid standing behind the student and reaching over and around them to assist. This can cause a reaction of physical avoidance when the adult's arms enclose the student. Instead, stand or sit to one side and provide support. Also, when possible, do not simply "stick" with the student. Instead, provide support and then back off to allow the student to work as independently as possible. The goal is to provide as little support as is needed for the student to be successful.
- For those students who experience auditory sensitivity, there are earphones or ear plugs that may help block out sounds that are disturbing. Some students may prefer to wear headphones that have white noise while they are working on assignments. This allows them the ability to concentrate on their work without having to filter out all of the other unnecessary and annoying sounds around them.
- Students who may have trouble remaining seated or who appreciate deep pressure to remain calm may benefit from wearing a weighted vest or having a 'lap weight' while seated. These items are often found in Occupational or Physical Therapy catalogues or in clinics. Some can be made inexpensively. These are good for calming.
- Constant chewing or mouthing of objects is often hard to stop. Instead, offer the student something that can be chewed or mouthed. For younger students, teething objects could be used. For older students, perhaps an object that is called a Nuk, but looks more like a pencil might work. Once again, consult with an OT.
- Many foods have textures that are upsetting to students with ASD; some like crunchy, some like smooth, some like cold, and some like hot. It is important to be aware of their likes and dislikes when offering meals or snacks, so they can participate and also receive nourishment.

These accommodations are by no means the only accommodations that can be made, but are merely a beginning of types of supports that may assist a student with ASD who experiences challenges in 'combining' the various messages their system receives during the day.

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