Opening the Classroom Door for Children with Autism

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We can all probably remember how we were taught to swim. Some of us had parents who took us to swimming lessons in a safely constructed pool at the local YMCA, with numerous, trained adults right next to us in the pool and floaties on our arms, while we paddled on a kickboard for as long as necessary until we were ready to swim independently. Others had the parents who just surprised them one day on summer vacation by sneaking up on them on the dock, hoisting them into the air, and jettisoning them into the dark and unknown depths of a lake, figuring they would jump in and help if they started to sink. Whichever way we experienced it, we are likely to have strong feelings about whether or not it was the best way to do it.

Sometimes we tend to think of educational experiences in a similar light and view options for students with disabilities in the same way. We tend to think that they need to either be pulled into a safe and protected environment for intensive instruction, or plunged into the unpredictable landscape of the general education classroom to sink or swim.

But it is possible that an educational concept called “Universal Design for Learning” can remove barriers for children with autism while also improving outcomes for all students.

With the ever-growing prevalence of autism in American children (1 in 68 according to recent CDC estimates), a growing topic for debate among educators, advocates and families of children with autism revolves around the best

educational option for children who, by definition, are faced with significant social-communication and behavioral challenges. There is no “one size fits all” answer as to whether or not it is best to educate children with autism in specialized, intensive “pull out” programs, or by providing the needed services within the general education classroom, often termed the “inclusion” or “push in” model.

Advocates of the “push in” model espouse that the more naturalistic setting of the general education classroom provides access to higher expectations, richer academic instruction, improved transfer and generalization of skills, and broader social acceptance of students with autism.

Others, however, caution that the highly structured, intensive and systematic teaching strategies are more appropriately implemented in “pull out” programs which focus intensive attention to the social communication and behavioral differences that are the hallmarks of autism spectrum disorders.

While there has been a great deal of inquiry and research in recent years outlining the pros and cons of both options, a frequent conclusion is that no single educational model is right for every child with autism. The adage attributed to autism advocate Stephen Shore bears repeating:

> *“If you’ve seen one child with autism… you’ve seen ONE child with autism.”*

One possibility for bridging the gap between these philosophies, however, lies in the application of an approach called “Universal Design for Learning” wherein evidence based practices for students with special needs can be more broadly applied to benefit all learners.

The National Professional Development Center on Autism Spectrum Disorders (NPDC) has conducted extensive reviews of the research into some of the most commonly recommended instructional strategies for educating students with autism. This multi-university project has identified 27 practices to date that are deemed to be “evidence based” for educating students with autism. Many of these strategies can very effectively be incorporated into general education settings where, not only can the intervention open doors to communcation and academic skills for students with autism, but can also benefit other students. The concept of designing instruction in this manner, is known as “Universal Design for Learning,” or “UDL”.

The term “Universal Design” was coined in the 1980’s by architect Ronald Mace to describe the process of designing environments, products and services in a manner that would make them of the greatest benefit possible to all people, regardless of age, health or ability. A prime example is the curb cut in sidewalks, which were designed to allow wheelchair access but also benefit non-disabled people with strollers, carts, bicycles, and skateboards.

This concept was expanded in interpretation as “Universal Design for Learning” or “UDL”, when the Center for Applied Special Technology (CAST) was formed by a group of educational researchers on a mission to explore how these same principles could impact educational outcomes for all learners. The idea behind UDL is the flexible and purposeful design of instructional methods, materials and technology to improve instructional outcomes for all learners.

UDL bases its concept of instructional design on three distinct brain networks that impact learning: the Recognition network (“what” is learned), the Strategic network (“how” it is learned) and the Affective network (the “why” behind learning). This multi-dimensional approach places emphasis on presenting information in different formats, offering options for interaction, and creating activities which maximize learner engagement and motivation.

There are five “evidence based practices” identified by the NPDC for teaching students with autism, which are also recommended by CAST for incorporation into the “UDL” classroom in order to maximize outcomes for ALL learners.

Evidence Based Autism Practice 1: Visual Supports

Related UDL Principle: Multiple Means of Presenting Information

Many individuals with autism process information most efficiently through their visual system, and therefore benefit from information being presented in visual formats rather than largely through the auditory channel.

According to the National Research Council, visual supports are defined as any tool that is presented visually to support an individual in developing such diverse skills as communication, task engagement, independence and self-management. Common visual supports used to support learners with autism include: pictures, videos, written words, objects, labels, schedules, checklists, outlines, graphic organizers, and even the physical arrangement of the environment.

Similarly, according to CAST, one of the principles of UDL is that learning material must be "perceptible" in order to be learned efficiently, and thus, one of the best ways to remove barriers to learning is to providing information through different learning channels, or "modalities" so that all students have the opportunity to learn through their strongest modality. While research bears out that visual supports are an evidence based practice for students with autism, visual representation also makes information easier to process for many other students to comprehend and retain, including those with hearing impairments, English language learners, or those who simply have a preference for visual learning.

Evidence Based Autism Practice 2: Naturalistic Intervention
Related UDL Principle: Recruiting Student Interest

According to the NPDC's evidence based practice brief, naturalistic intervention is a method of designing the learning environment, interactions, and instructional strategies, to include self selected activities which promote motivation and engagement. Oftentimes, a child with autism may more willingly and actively engage in social communications, vocabulary, turn taking and sharing attention within a highly preferred, or "special interest" activity.

Similarly, CAST recommends that instruction in the universally designed classroom should be planned specifically to "recruit the interest" of the learner by regularly offering opportunities for individual choice. Information that is closely attended to is more likely to be retained for reference in future skill development. It is for that reason that CAST recommends that teachers incorporate regular opportunities for student choice in topics of study, formats for expressing learning, and activities to gain information, thus paving the way for naturalistic intervention opportunities for students on the autism spectrum in the classroom as well.

Evidence Based Autism Practice 3: Peer Mediated Instruction and Intervention
Related UDL Principle: Fostering collaboration and community

Peer-mediated instruction and intervention is described in the NPDC's evidence based practice briefs as the training of typically developing peers to help and encourage learners with autism to interact within a variety of activities in natural environments, such as the classroom, lunchroom or playground.

From the UDL perspective, this is not only another avenue for recruiting interest and engagement through preferred activities, but is also another method to "foster collaboration and community", another principle of UDL. CAST emphasizes that peer mentoring and collaborative groups can be an extremely useful option for providing support to students for whom social participation is challenging or less intrinsically motivating.

Evidence Based Autism Practice 4: Computer/Technology Aided Instruction
Related UDL Principles: Mulitple Means of Representation, Multiple Means of Expression, Options for Recruiting Student Interest

Computer/technology aided instruction is described by the NPDC as the use of computers or other technology to teach academic or communication skills. CAST describes the use of computers and other technology as an important aspect of UDL, as it allows many options for information to be presented and expressed through multiple

learning modalities, and is an area that is highly motivating to many students, with and without autism.

It comes as no surprise that, as technology is more and more prevalent in all learning environments, the incorporation of computer and technology aided instruction is a natural fit for implementation of this evidence based practice within the context of the general education classroom. Technology is used in many ways in today's classrooms, and for many purposes. Some examples include: interactive white boards, tablets, personal communication devices, and computers with a variety of accessibility features such as speech to text, text to speech, word prediction, screen readers and grammar checkers. The variety and relative availability of technology in most classrooms allows many options for all students to communicate and interact with information, both to gain and express knowledge.

Evidence Based Autism Practice 5: Social Skills Groups
Related UDL Principle: Fostering Community and Collaboration

Social skills groups are an evidence-based practice identified by the NPDC as a method for teaching individuals with autism how to interact appropriately with neuro-typical peers. This intervention usually involves the teacher and small group of students practicing social skills through direction instruction, structured activities or role-play.

While one of the hallmarks of autism is difficulty engaging in social relationships, children with autism are far from the only children who benefit from opportunities to engage in direct instruction and practice of appropriate and effective social skills. Children from different cultures, children from disadvantaged backgrounds and children with limited social exposure can all benefit from structured opportunities to learn how to navigate the challenges of various social scenarios.

In closing….

While it is likely that no single educational situation is the "right" solution for every child, it may be beneficial for parents, teachers, and other service providers to understand that many of the recommended practices for children with autism may not only be easily integrated into the general education classroom with excellent results, but may benefit many typically developing students in the process.

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