

# Education Resource Guide



# DSNMC Educational Resource Guide

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## Purpose of this Guide

The Down Syndrome Network of Montgomery County has created this *Education Resource Guide* because we believe that the best way to support the educational needs of our families is to be a “go-to” resource for the most up-to-date information and resources for our educators. The mission of our organization is to empower and support individuals with Down syndrome, their families and the community through education, information, public awareness and advocacy. We envision a community where all people with Down syndrome can achieve their full potential, and where individuals with Down syndrome and their families are welcomed with fairness, enthusiasm and encouragement.

When my daughter who has Down syndrome was born, it was a surprise to our family. There were so many things going through my mind: “I don’t know how to take care of her, I didn’t sign up for this, who would help me?” As a parent, I quickly realized that she was simply a child who needed a little extra help, and there were so many people out there that I did not know about who were ready to help me. I believe that it can be a similar situation for a teacher or educator in a school. If you are not prepared for a child with Down syndrome to come into your classroom, the fear of the unknown can be overwhelming. DSNMC wants to take away that feeling and replace it with knowledge, empowerment and the opportunity for you to feel comfortable with the addition of that child to your classroom.

This *Education Resource Guide* was designed with all of this in mind. Inside, you will find strategies for how children with Down syndrome learn, tools for the classroom and general learning information. It is our sincere hope that this

will guide you through your journey with Down syndrome and you will feel comfortable reaching out to DSNMC when you need something. In an IEP meeting for my daughter, someone once told me, “We all know what she doesn’t bring to the table, we need to focus on what she does bring to the table.” This positive approach is eye-opening. It is easy to get caught up in the stereotype of Down syndrome and developmental delay, and their ability is often clouded by these stereotypes. Not all children are the same, and that is true as well for people with Down syndrome. However, concrete facts about the genetic makeup of our children are reflective in their learning styles, how they absorb information and something as simple as memory.

I can assure you that the information inside of this packet will not only be useful for the child in your class with Down syndrome, but for all kids, even those without a developmental delay. Take one day at a time, know that DSNMC is a resource for you, and all that you need to do is ask if you need information. Finally, thank you for taking the time to read this and seek this information; it is educators like you that make a difference.

Warm Regards,

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August 2011

# SECTION 1

## Down Syndrome Facts



# The Home and School Partnership

The Down Syndrome Network of Montgomery County (DSNMC) strongly believes that creative collaboration between all team members is the best strategy for success. Each child possesses a unique potential, and when the parents, teachers, assistants, specialists, school administrators, bus drivers and others all work in the best interest of the child, your student will have a productive year.

## What is Down syndrome?

Down syndrome is the most commonly occurring chromosomal condition. It occurs when an individual has three, rather than two, copies of the 21<sup>st</sup> chromosome. This additional genetic material alters the course of development and causes characteristics associated with Down syndrome. Down syndrome occurs in all races and economic levels. There are more than 400,000 people living with Down syndrome in the United States. People with Down syndrome attend school, work and contribute to society in many meaningful ways.

## Is it Downs, Down's or Down?

The correct terminology is Down syndrome. There is no apostrophe and there is no capital "s" in syndrome. The syndrome is named after the physician, Dr. John Langdon Down, who identified the common characteristics as a syndrome in 1866. A child with this condition is a child with Down syndrome, not a Down's child or the Down's kid in Mrs. Hall's class. Parents will greatly appreciate your sensitivity when you address their child as a "person first" and not merely as a syndrome.

***"When our son was born I thought there would be a lot of things he couldn't do. Actually he is just like any other kid. It just takes him a little longer to get there."***



## True or False

- Most children with Down syndrome are born to older mothers. *False.* The average age of a mother giving birth to a baby with Down syndrome is 28. 80% are under 35. However, the chance of incidence does increase with maternal age.
- People with Down syndrome are severely intellectually disabled. *False.* Most people with Down syndrome have some degree of intellectual disability, however, it usually falls into the mild to moderate range and is not indicative of the many strengths and talents each individual possesses.
- People with Down syndrome are always happy. *False.* People with Down syndrome have feelings just like everyone else in the population. They respond to positive expressions of friendship, and they are hurt and upset by inconsiderate behavior.
- Children with Down syndrome are such angels. *False.* Most parents would disagree with this statement. Like all children, children with Down syndrome have good days and bad days. They are individuals with their own unique personalities and talents.

## Health Concerns That May Affect Learning

For the most part, people with Down syndrome are very healthy individuals. Medical advances in the past years have greatly improved the overall fitness of these individuals and they are now living full and active lives in the community. However, there are some medical concerns that are specific to Down syndrome that may have an effect on classroom behavior and learning.

**Hypotonia** - Almost all children with Down syndrome have hypotonia or low muscle tone. This may impact their muscle strength, endurance, stability on their feet, readiness for action, balance and coordination. Low muscle tone can also affect fine motor skill development. As a result, you may notice more fatigue in children with Down syndrome. However, it is also possible for a child to have both low muscle tone and hyperactivity. ADHD occurs in individuals with Down syndrome with the same frequency as the general population.

### A Word About Hugs

As with all children, it is also important to help children with Down syndrome learn appropriate social boundaries. Although hugging your teacher is encouraged in the early grades, children need to learn when this has become inappropriate and how to replace hugging with more appropriate social gestures. A hand shake, pat on the back, high 5, thumbs up sign, etc are all great replacements to hugging. **However, hugging might be a sensory need, in which case you need to speak with a specialist about how to best fulfill it beyond elementary years.**

**Heart** - Congenital heart disease is reported to occur in 30 to 60% of children with Down syndrome. Many defects correct on their own or are surgically repaired. If a child has not yet had the surgery to correct an abnormality you may notice fatigue in your student and proper rest intervals during the school day may be helpful. Consult with the child's parents as to the status of any heart abnormalities.

**Vision** - 30 to 50% of children with Down syndrome have eye abnormalities which are the same types as those seen in other children, only they occur more frequently in children with Down syndrome. Children with Down syndrome are more likely to need glasses than are children in the general population. They may be difficult to fit with glasses due to the flat nasal bridge. Notify parents if you notice: (1) Tipping of the head when working; (2) Covering one eye or closing one lid while working; (3) Squeezing or squinting; (4) Eye rubbing; (5) Excessive stumbling or (6) Crusty eyelids (Blepharitis).

**Hearing** - The majority of children with Down syndrome have some type of hearing loss. This may be attributed to a combination of frequent middle ear infections and structurally short and narrow ear canals from which fluid

has difficulty draining. Please consult with your student's speech therapist to maximize your student's speech and language development.

**Thyroid** - The incidence of thyroid disease is significantly higher in children with Down syndrome than in the general population. 15-30% of children with Down syndrome are treated for thyroid disorders. A child with hypothyroidism may show signs of lethargy in the classroom. Symptoms of hyperthyroidism may include weight loss and heat intolerance.

**Upper Respiratory Infections** - Children with Down syndrome frequently show symptoms of respiratory difficulty especially in the winter months. A chronic runny nose and congestion will certainly affect a child's stamina and ability to concentrate. However, if the nose is running clear and there is no accompanying fever the child will likely not be contagious.

**Pain Tolerance** - A recent study has confirmed what parents already knew: individuals with Down syndrome express pain more slowly and less precisely than the general population. However, they are not insensitive to pain. They may not

Cont.

exhibit signs of distress when exposed to painful stimuli. Their pain threshold appears to be higher than the general population. Therefore, a teacher may have to be alert to other signals from the child to determine if they may not be feeling well or are injured.

## Fine Motor Skills

Several factors may affect the fine motor skill development of children with Down syndrome.

- Low muscle tone, or hypotonia
- Shortened limbs - hands may be 10 to 30% shorter
- Ligament or joint instability.

These factors may contribute to difficulty with small muscle activities such as handwriting. In addition, children with Down syndrome may have wrist bones that develop more slowly, decreased skin sensation or a delay in the maturation of the palmar reflex. Please consult with your student's **Occupational Therapist** for suggestions on developing these skills.

## Gross Motor Skills

**Desk Height** - It is important that all children have a comfortable workspace. It is especially important for a child with low muscle tone because proper support will help to alleviate fatigue.

**Foot Support** - Check to see that your student's feet are not dangling from his chair but rather resting flat on the floor. Proper foot stability will not only lessen fatigue but will also provide trunk support.

**Hypotonia**- Low muscle tone may affect some body parts more than others. A student with Down syndrome may have difficulty sitting for an extended time on a floor without proper back support. Provide something to lean against. W sitting should be discouraged as it stresses joints in the knees and hips. Please consult with your student's **Physical Therapist** for suggestions on increasing gross motor skill development.

***Keep your expectations high.***  
***Children with Down syndrome have***  
***lots of potential!***

## Sensory Integration Disorder

**Sensory Integration Disorder**, also known as Sensory Processing Disorder is a complex neurological condition that affects a surprising number of children, and may also affect children with Down syndrome. Throughout the day, our brains are constantly receiving sensory input, such as touch, sound, movement, texture, even foods, which must be processed appropriately in any given situation. Children with Sensory Integration problems misinterpret this everyday sensory information. The result is difficulty in learning even simple tasks, and in some cases behavioral problems emerge as the child struggles to cope with an overwhelming world.

**A few of the common signs of a Sensory Integration disorder are a pronounced over reaction, or under reaction to sights, sounds, touch or movement such as clumsiness, or lack of coordination, difficulty in transitioning from one place or activity to another.** In a world that is often confusing, they seek security in the familiar.

**A child with auditory processing problems may have difficulty following verbal directions, or be easily distracted by noises around them. They may also experience speech and language delays and mispronounce words.** It is difficult to make friends when a child cannot accurately understand and communicate with his peers. Children can become socially isolated and have problems in school.

Because our sense of touch is so crucial to every situation, tactile problems can seriously affect the ability of a child to function effectively. **Children with a tactile problem often have difficulty with fine motor skills. Their brain is not receiving the appropriate feedback that is necessary to learn important life skills such as writing, dressing and feeding themselves.** The child may also be unaware of food on the face, making them messy eaters.

It is highly recommended that children with Down syndrome with **sensory integration disorders be treated by an Occupational Therapist trained in Sensory Integration.** This specialist should guide the educational team on how to adapt the environment to best attend the child's needs.



## How Do Children with Down syndrome Learn?

As with all children, there is a wide range of abilities, behavior and physical development among children with Down syndrome. However, as a general rule, most children with Down syndrome:

- Are visual learners. Pairing pictures with spoken words is very helpful.
- Require simple directions.
- Are not as strong with auditory memory and auditory processing. Allow adequate response time.
- Have fewer short-term memory channels. Break down directions into smaller steps.
- Have difficulty retaining directions or information that is only presented verbally.
- Have a slower rate of learning than typical peers.



### Communication

Each student with Down syndrome is a unique individual and the same speech therapy approach will not be effective for every student. Therapy is always individualized based on a child's particular strengths. Students with Down syndrome clearly want to communicate and many will need special techniques, strategies and exercises to assist them in their communication development. Refusal to comply or stubborn behavior may actually be caused by a student's frustration with their ability to communicate effectively. The **Speech & Language Therapist** should be able to offer suggestions for strategies to use in your classroom.



# SECTION 2

## Strategies for Educators and Para-Educators



# Ten Tips for GENERAL EDUCATORS

*With collaboration and focused efforts, all students  
can actively participate in the classroom.*

## 1 – Promote Socialization

Seat students with students. Adults sitting with students may discourage peer interactions. Encourage para-educators or classroom assistants to sit off to the side or away from students.

## 2 – Vary Your Instructional Methods

Make learning an active experience for ALL students. Create cooperative learning groups and encourage partner learning. Provide a variety of resource materials, workshop formats, and experiential activities. Have students demonstrate knowledge in a variety of ways.

## 3 – Establish Learning Goals

Work with the special education team to clarify learning goals for students with IEP's. Check to see that your students are continually working toward their learning objectives. Assess student knowledge no matter their level of ability.

## 4 – Share Your Lessons and Plans

You are not alone. When you share your teaching plans, the special education team can modify the content to meet the needs of students with disabilities.

## 5 – Get to Know Your Students

Greet students as they enter the classroom. Saying hello teaches social and communication skills. Ask about their home, pets, or social life.

## 6 – Expect Success

Expect ALL students to learn and participate in your classroom. Tell students what you expect. Adjust the demands of activities or assignments to match the student's abilities.

## 7 – Treat Students Equally

Maintain behavior expectations and disciplinary methods for ALL students in your classroom. Share your expectations with other adults.

## 8 – Speak Directly to Students

Resist temptations to talk through para-educators who accompany students. Direct greetings, explanations and questions to the student.

## 9 – Ask Content Questions Daily

When students respond to content questions they are practicing social and communication skills as well as learning the content. Your informal assessments and teaching observations can provide useful insights into possible curriculum modifications.

## 10 – Share Ideas and Feelings

Express your fears and opinions. Phrase concerns in specific terms. Instead of saying, "I don't think this student belongs here!" Try, "How can I make Shakespeare meaningful for this student?"

# Ten Tips for SPECIAL EDUCATORS

***Collaborate to promote the participation of students with disabilities in the inclusive classroom.***

## **1 – Visit the Inclusive Classroom**

Assess student progress and participation in the classroom setting. Your lesson modifications, accommodations, and learning goals will be more meaningful.

## **2 – Develop a Rapport with Teammates**

Talk with classroom teachers in person. Encourage others to voice concerns, hopes and fears. Even a two minute chat between classes can establish collaboration.

## **3 – Bolster Student/Teacher Relationships**

Brag about your student's strengths. Tell the classroom teacher how your student participates. Never apologize for placing a student in an inclusive classroom or promise that a student will "not be a bother."

## **4 – Define Roles and Expectations**

Tell classroom teachers your role, and explain how you can help. Specify what you will need to increase student participation. Discuss discipline and behavior expectations.

## **5 – Watch Your Language**

Avoid acronyms or language specific to your field. Good collaboration stems from good communication. Use people first language.

## **6 – Friends are Natural Supports**

Peers can walk together between classes, record messages on communication devices or assist at lunch.

## **7 – Supervise Para-educators**

Give para-educators explicit instructions. Outline duties in detail. Always follow up and monitor how things are going in the classroom.

## **8 – Use the Expertise of Others**

Solicit the classroom teacher's participation. Ask for the syllabus, learning objectives, outcome standards, rubrics and any specific content information.

## **9 – Invite Students to IEP Meetings**

Students who attend their own meetings understand their role and responsibility as active learners. Ask peers, family, friends, and teachers to share their goals and expectations with the student.

## **10 – Promote Active, Experiential Learning**

Assist in planning cooperative learning groups, centers, partner learning, and project based lessons. Alternative methods encourage active learning for ALL students.

# Ten Tips for PARA-EDUCATORS

***Classroom aides can support teaching, foster student independence, and discourage learned helplessness.***

## **1 – Facilitate Peer Relationships**

Remind others to communicate directly with the student. Let students choose their own seat or place in the classroom. Give students the space and freedom to socialize and develop friendships.

## **2 – Multi-task in the Classroom**

Use class lectures as an opportunity to program a student's communication device, plan accommodations or modifications, and develop curriculum materials. Time away from the student's side promotes independence.

## **3 – Ask for Help**

You are not alone. Ask for direction in the classroom. Request assistance with disciplinary issues. Leave decisions about content and curriculum modifications or accommodations to the teacher.

## **4 – Let Students Make Mistakes and Take Risks**

Everyone learns from mistakes. Allow natural consequences to be part of the student's classroom experience.

## **5 – Watch Your Voice and Volume**

Discussions with other adults or students during instruction can be disruptive to the class. Save important discussions for after class.

## **6 – Maintain Student Dignity**

Assume the student can do it! Be discreet about the student's physical needs. Schedule tube feedings, splint adjustments, stretching exercises and toileting for in-between classes.

## **7 – Communicate and Consult with Caregivers**

Listen to what families have to say and keep them informed. Learn the strategies that work at home and can work at school.

## **8 – Give as Few Prompts as Possible**

Foster independence. Fade out hand-over-hand assistance and use it to teach a task, not to complete a task. Resist the temptation to give verbal directions for every aspect of a task.

## **9 – Help Students Create Authentic Work**

Students learn when they actively participate in assignments. Avoid completing assignments, taking tests, or answering questions for students. Show caregivers their child's genuine work and progress.

## **10 – Let Students Make Choices**

Give students the ability to control their lives and interact with the environment. Offer choices to the student no matter how insignificant they may seem.

# Differentiating Instruction

This article is from the website of Dr. Paula Kluth. It, along with many others on inclusive schooling, differentiated instruction, and literacy can be found at [www.PaulaKluth.com](http://www.PaulaKluth.com). Visit now to read her Tip of the Day, read dozens of free articles, and learn more about supporting diverse learners in K-12 classrooms.  
<http://www.paulakluth.com/readings/differentiating-instruction/differentiating-instruction/>

## Project-Based Instruction

Project-based instruction is especially appropriate for students with diverse learning profiles as many student needs and learning styles can be addressed, there are increased opportunities for peer support and the development of relationships, students can work at their own pace; and a number of skills and disciplines can be incorporated into any project.

Projects are an ideal learning activity for any student who needs some time alone to work independently and for those who thrive when given opportunities to immerse themselves in one topic. Donna Williams (1992), a very gifted author and poet with autism, found that she could be academically successful when a favorite teacher believed in her abilities and let her pursue a topic of special interest in-depth:

*While the other teachers found me a devil, this teacher found me to be bright, amusing, and a pleasure to teach. At the end of the term, I handed her the most important piece of schoolwork any of my high school teachers had received.*

*The students had all been given a set date and topic on which to write. I had been intrigued by the way black people had been treated in America in the sixties.*

*I told my teacher that what I wanted to do was a secret, and she agreed to extend my due date as I enthusiastically informed her of the growing length of my project. I had gone through every book I could find on the topic, cutting out pictures and drawing illustrations over my written pages, as I had always done, to capture the feel of what I wanted to write about. The other students had given her projects spanning an average of about three pages in length. I proudly gave her my special project of twenty-six pages, illustrations, and drawings. She gave me an A... (p. 81)*



In managing projects, teachers should set clear timelines, teach students how to chart their own progress and develop progress reports, and help students to produce a final product or products. Harmin (1995) suggests that teachers steer students away from projects that involve copy work and passive learning and point them towards those activities that will inspire higher order thinking and meaningful engagement. In order to prevent students from engaging in excessive pencil and paper work, ask them to design a model, compare ideas, create a product, or produce a mural (Harmin, 1995).

Instead of asking them to do a report on the school district's recycling practices, ask them to summarize the opinions of two experts, interview two school employees, and invent a model policy to present to the school board.

# Challenging Behavior in the Classroom

## Communication is the key. Examples:

1. Tell a child what to do instead of what not to do.
2. Show the child by modeling or using a picture of the action.
3. Clearly and simply state what you expect the child to do.
4. Remember young children use inappropriate behavior because they may not understand the social rules yet.
5. Talk to young children using language they understand. Young children may not understand words like “don’t” because it is a short word for “do not” and he/she may not know what the “negation” of a word means.
6. Encourage the child in a way that lets him/her know that he/she is exhibiting the desired behavior.
7. Be enthusiastic and generous with encouragement. Children can never get enough!

Avoid	Say/Model	Remember
Don't run!	Walk; Use walking feet; Stay with me; Hold my hand	Way to go! I like how you're walking. Thanks for walking!
Stop climbing!	Keep your feet on the floor	Wow! You have both feet on the floor!
Don't touch!	Keep your hands down; Look with your eyes	You are such a good listener; you are looking with hands down!
No yelling!	Use a calm voice; Use an inside voice	[In a low voice] Now I can listen, you are using a calm (inside) voice.
Stop whining!	Use a calm voice; Talk so that I can understand you; Talk like a big boy/girl	Now I can hear you; that is so much better. Tell me with your words what's wrong.
Don't stand on the chair!	Sit on the on the chair	I like the way you are sitting! Wow you're sitting up big and tall!
Don't hit!	Hands down; Hands are for playing, eating, and hugging; Use your words (Give child appropriate words to use to express emotion)	You are using your words! Good for you!
No coloring on the wall!	Color on the paper	Look at what you've colored! Pretty picture!
Don't throw your toys!	Play with the toys on the floor	You're playing nicely. I really like to watch you play!
Stop playing with your food!	Food goes on the spoon and then in your mouth; Say “all done” when finished eating	Great! You're using your spoon! What nice manners, you said “all done;” you can go play now.
Don't play in the water/sink!	Wash your hands	Thanks for washing you're hands! I can tell they are really clean!
No biting!	We only bite food; Use your words if you're upset (Give child appropriate words to use to express emotion)	You're upset, thanks for telling me!
Don't spit!	Spit goes in toilet/tissue/grass; Use your words (Give child appropriate words to use to express emotion)	I like the way you used your words! Thanks for using your words!

## Stubborn is...as Stubborn Does

It is interesting to me how many people talk about their child's stubborn behavior as if it was part and parcel with having Down syndrome. It isn't.

There are many people who are stubborn who do not have DS. In fact, in some situations, being stubborn is seen as a positive trait.

I have heard people say that the reason they came out as winners in a situation was because...

"I was stubborn and no one was going to push me around."

"They thought I would cave, but I was too stubborn to give up easily."

So, what is this stubborn behavior that we see with students who have DS and how can we think about it?

I see stubborn behavior as a direct result of lacking the skills and/or language to negotiate a position.

Often, we will take a stance on something we care about and, right or wrong, stick to that stance until we understand or agree with another's view.

A student with DS will continue to do things in a specific way because it is safe, it is known and it has worked in the past. When we try to change their behavior, when we try to introduce new things, we threaten their "safe place."

Some of us are open to change and will accept change far better than others. This is the same for students with DS.

Some of us are able to argue our side of the issue, some of us can be persuasive and bring people to our view and not have to change - the other person changes.

Students with DS cannot do this as well. They lack the language, the cognitive flexibility needed in verbal discourse and the larger worldview to win many verbal arguments. So...they look stubborn.

Think about it. If you were in a situation where you did not understand what was going on around you and people were trying to get you to do something you were unsure of, what would you do?

You would resist, you would stay doing what you know, you would be seen as stubborn. What if you did not have the language skills to share your views, what if the other party did not understand you or did not care about what you had to say? Then, you were punished or censured because you were seen as stubborn. How would this affect your level of cooperation the next time?

How would you respond to these people who "made you do something you did not understand nor even agree with?" You may become even more stubborn or resistive. And, they, in turn would see this as "noncompliance" or as a "problem."

They would respond in a way that assumes that your stubbornness is something that exists on its own; apart from you having a different view of the same situation or apart from your being unable to communicate your point of view successfully.

### How can we change the pattern?

**By letting go of the myth of stubbornness and seeing stubborn behavior as resistance. Resistance to something new, resistance to something that is not understood, resistance to having others be in control, resistance to someone they may not trust or understand. The only way to help anyone become less resistant is to help them to feel safe enough to try something new or different.**

When children are young, they will not respond very well to changes and will withdraw. As they grow older, they will use strategies that have worked in the past... withdrawing, not looking, pouting, sitting, throwing themselves down (stubborn-looking behaviors).

The more stubborn a student looks, the more useful this behavior has been in the past; using this repertoire of strategies has allowed the student to remain in a safe place.



## Adults are part of the problem.

We have taught children what they need to do so we will stop pushing or so we will leave them as they want to be. Then, sometimes, we become angry.

As we become angry, children resist further as they do not understand what is happening and are often upset with the situation as well. How many of us respond to anger if we are nervous about a situation?

How many of us would become less "stubborn" if someone demands that we do something that we are not sure about?

When faced with a student who appears to be stubborn, think about the following:

1. Although this makes sense to you, it must not make sense to this student. How can you help the student gain a better understanding of what it is you are wanting? Remember, saying that it is "good" for them is not helpful. Can you show, act out, the positive outcome of the request? Can they try it in small steps? Can you find a way to make it clearer, less threatening? What kind of language are you using?
2. Is there a way to help the student use other means to say... "no," "wait," "this is scary," "you want me to do what?" other than the behavior that is being seen? Until a student has some way of communicating with others, the resistance will look like stubborn behavior.
3. Follow the old adage "Win them over with honey." Any human being will respond to positives over coercion. Always enter a new situation using something that the student likes from other situations, go from what the student already knows and build on it. Pair a new experience with something that is already successful and liked by the student. Use play, songs, games, etc. to help a student deal with new experiences. Watching another student have success may not work as some students do not learn from watching others so they may not understand that they too could have that success.
4. You need to have a trusting relationship with anyone before they will try something new just because you told them to do it. Some students take a long time to reach that level of trust. You cannot be the "punisher" and build a trusting relationship with a student. You cannot coerce some behaviors and reinforce others; this inconsistency will cause stress; students may never feel safe enough with you to let go of those behaviors that help them feel safe.
5. When you feel yourself becoming angry, stop, laugh, walk, relax, count, etc. Release the tension in the situation and then try again...maybe in a different way. Sometimes students will come around just because you have calmed down and re-entered the relationship in a way that is not threatening.

Some of the best people are just stubborn enough to hang in there when many others have given up on a child. So, join them.

Be stubborn about a child's ability to learn and help him or her to feel safe enough to venture into new territory with you alongside.

# **How to Make a Visual Schedule**

## **Guide to supporting young children with challenging behavior**

1. Gather Materials such as scissors, glue stick, poster board, clear contact paper, Velcro, pictures (photographs, pictures from magazines, computer programs, food labels, etc.).
2. Choose pictures for the schedule you wish to create. Keep in mind that a visual schedule helps children anticipate transitions and activities. It may outline parts of a day, half-day or an entire day.
3. Cut your pictures. Mount (glue) on same size poster board or manila folder for durability. Keep in mind your child's developmental level.
4. Laminate or cover the pictures with clear contact paper.
5. Put a small piece of Velcro on the back center of each picture. Use the same type of Velcro for the back of the pictures and the opposite type for the schedule board.
6. Create a strip/board to hold the pictures using poster board. Make it long enough to hold pictures for several activities. Laminate and put a Velcro strip across or down the center. Put Velcro on the backs of the pictures to attach to the strip on the schedule. If needed add a pocket at the end that represents "finished" or "all done." Otherwise pictures can be turned over to indicate "all done." In this case, a piece of Velcro goes on the front of the picture and on the back.  
TIP: The schedule may be vertical or horizontal.
7. Velcro the pictures to the schedule in the order activities occur. Depending on the child, use only a few pictures at a time (e.g., part of a day) OR individually present the pictures to the child by pulling them off of the schedule to show them.
8. Show the schedule to the child. Orient the child to the schedule and model by hand-over-hand, touching, or pulling off the pictures. Remove pictures with the child at the end of each activity and place in pocket or turn them over.

# Photograph Tips

1. Children communicate and understand at **different symbolic levels**. First, determine your child's "**visual stage**" (or combination of):

Symbolic Level	Description of Symbolic
Object Stage:	use of actual objects to communicate
Photograph Stage:	use of real photographs (photo, digital, scanned, magazines, catalogs, coupon adds, etc.) for communication needs
Picture Symbolic Stage:	use of colored line drawings (hand drawn or commercially produced) for communication needs
Line Drawing Stage:	use of black and white line drawings (hand drawn or commercially produced) for communication needs
Text Stage:	use <b>written</b> form of words and/or numbers for communication

2. Add text to photographs, pictures, and line drawings to promote reading. Text also helps adults use the same language for a particular item.
3. Present visuals from left to right if your child scans horizontally or top to bottom for vertical scanners. The orientation depends on how the child scans.

## 4. Photographing tips:

Place item or object on a solid/high contrasting background when taking photo. Note: If you want to communicate, "go potty" take a photograph of the toilet; to help the child focus on the main item avoid including other items in the picture. Try to take the photograph from the child's perspective.

## 5. Preparing the picture visuals:

Make the "picture" sturdy, easy to handle, and durable by using cardstock, or glue to a manila file folder, then cover with contact paper or laminate.

## 6. Pictures can be obtained from a variety of places:

Photographs: camera, digital, computer scanning, magazines, catalogs, coupons, advertisements, Izone Camera, internet sites, commercial computer programs...

Picture Symbols & Line Drawings: computer scanning, magazines, catalogs, coupon adds, internet sites, commercial computer programs, coloring books and dittoes, hand drawn pictures, etc.

## In the Dance of Relationships, Who's Leading-Who's Following?

This year, my husband and I proudly celebrate our 28th wedding anniversary, and we're looking forward to the next 28! But it wasn't always so. After about ten years of marriage, I was frustrated and decided to seek the help of a family counselor. What was the problem? Something most wives can probably relate to: my hubby didn't always put the toilet seat down or hang his wet towels up, and so on and so forth—all minor irritants that (in my mind) generated major stress!

Off to the counselor I went. She first asked if these were new behaviors of my husband—had he just started doing these things? No, and that was part of the problem; I'd had ten years of this! She chuckled and noted that my husband's actions must have been acceptable at one time, for I didn't complain before. Darn—I had to admit she was right! She empathized with me, and then explained that when two people are in any type of relationship, it's like they're dancing a slow dance. She asked, "Do you want to keep 'dancing' with your husband or are you ready to end the marriage?" No, I didn't want a divorce—I just wanted him to change! She replied, "OK, so it's like the slow dance. When you're slow dancing, one person has to follow the other's lead. If you want to keep dancing with your husband, you need to change your dance steps, and he'll change his." So if I changed my behavior, I'd see changes in my husband? Yes, and she was right. My hubby got better at putting the toilet seat down and I got better at putting things in perspective. We both changed, and the slow-dance philosophy has been helpful to me ever since.

In so many situations, two people—husband/wife, parent/child, teacher/student, teacher/child's parent, service provider/person with a disability—get locked into patterns of behavior. One person may attempt to exert power and control, the other resists. In the process, a battle of wills ensues, and neither person is aware of the pattern that repeats itself, which may escalate into all-out war!

Every person is born with the innate need to control

one's own life. Unfortunately, personal power is often stripped from children and adults with disabilities—by parents, teachers, service providers, and others in positions of authority. Similarly, many parents of children with disabilities justifiably feel they have no power as members of their children's IEP teams, and/or in other situations where "someone in authority" (physician, service provider, teacher, etc.) is exerting powerful influence. But when a person feels she has little or no control, she'll take every opportunity to exert control, whenever and wherever possible—in subtle or not-so-subtle ways.

For example, when a person with a disability doesn't robotically follow the demands of a parent, teacher, therapist, service provider, or other "authority," and actively or passively resists, we may say the person is "non-compliant" or "manipulative." We may then slap a "behavior problem" label on him. At that point, we may exert even more control, which causes him to resist harder, and the vicious cycle escalates (to the grave detriment of the person with a disability). This situation may be especially common if the goal, activity, or demand is not relevant and meaningful and/or doesn't make sense to the person.

When my son, Benjamin, was six, the physical therapist recommended water therapy. It seemed like a good idea, since he loved playing in the water. The therapist had a set of weighted rings that she would drop to the bottom of the hot tub, one at a time. Benjamin was to retrieve these by "swimming" to the bottom of the tub, and this was supposed to help his gross motor, fine motor, and deep-breathing skills.

She dropped the first ring, and in his desire to "help," Benjamin retrieved it for her. But when she dropped the second one, he looked at her like she was a big dummy—he was more than willing to pick up the first ring she "dropped," but if she was dumb enough (in his mind) to drop a second one, she could get it herself! Thus, he refused to go

Cont.

underwater a second time, and after cajoling, nagging, and near scolding by the therapist, she labeled him as “non-compliant.” But when Benjamin and his dad played similar “games” in our hot tub—activities which were relevant and meaningful and made sense to him—he enthusiastically participated. Thus, we probably should examine our hypothesis about the genesis of someone’s “behavior problem.” Is it the result of a person’s diagnosis? Is it a situational or environmental issue? Or could it be the direct result of our behavior? Whose “behavior problem” is it, really?

But what could happen if we apply the slow-dance philosophy? Whether one is a parent, teacher, therapist, service provider, etc., what if we changed our dance steps?

- What if we communicate differently—in our facial expression, tone of voice, body language, words, and more?
- What if we ask, instead of tell?
- What if we listen better, and really hear the person, and even try to dance in his shoes?
- What if we recognize that what’s important to the person with a disability—not what we might think is important—is the more critical factor?
- What if we wonder if our difficulties are the result of the other person’s long-term habits, actions, personality, etc., or our intolerance of same, as in my personal story described earlier?

Might any of these actions on our part result in a positive change in the other person’s behavior, reaction, or response? In turn, could that generate a more positive reaction from us, which again cycles into a more positive response from the person, and so on? Imagine how different IEP/ISP meetings and/or other personal interchanges might be different—and better—under these circumstances.

Let’s go further and think about the so-called inappropriate behaviors of children or adults with disabilities, like when we say a person is “non-compliant” or “manipulative.” Is it possible the person’s behavior is, in fact, a compelling means (to him) of exerting some control over his life? And since so many people with disabilities are considered incompetent or unable, shouldn’t this effort be viewed as a positive, instead of a negative?

Similarly, and using the example of my son and the water therapy rings, is the person’s behavior a reaction to a nonsensical, irrelevant, and meaningless request? Again, shouldn’t we celebrate and respect—instead of demean—the person’s awareness and perspective? If the therapist had changed her dance steps and seen things from my son’s perspective, her actions, as well as her opinion of his behavior, would have been quite different.

In too many cases, maintaining heavy-handed power and control—not common sense, not respect and dignity, and not what’s important to the person with a disability—may be the core of our actions. But in the slow dance of relationships, a delicate balance is required. Changing our dance steps can result in a whole new dance (and a whole new relationship). Being light on our feet, remaining responsive, and gently and patiently helping our dance partner learn new steps when necessities are also essential.

On the other hand, if you and your dance partner are continually stepping on each other’s toes or worse, it might be time to gracefully bow out and let someone else dance in your place—temporarily or permanently. And when our dance partner is a person with a disability, shouldn’t she take the lead and shouldn’t we follow? Whose life is it anyway?

# Positive Behavior Intervention System and Supports – PBIS

## What is PBIS?

PBIS is a process for creating safer and more effective schools. PBIS is a systems approach to enhancing the capacity of schools to educate all children by developing research-based, school wide, and classroom discipline systems. The process focuses on improving a school's ability to teach and support positive behavior for all students. Rather than a prescribed program, PBIS provides systems for schools to design, implement, and evaluate effective school-wide, classroom, non-classroom, and student specific discipline plans. PBIS includes school-wide procedures and processes intended for:

- **ALL** students, **ALL** staff and in **ALL** settings
- Non-classroom settings within the school environment
- Individual classrooms and teachers, and
- Individual student supports for the estimated 3-7% of students who present the most challenging behaviors.

PBIS is **NOT** a program or a curriculum. It **IS** a team-based process for systemic problem solving, planning, and evaluation. It is an approach to creating an environment within which school-based teams of educators are trained in:

- Systems change
- Effective behavior management principles and practices; and
- Applications of research-validated instruction and management practices.

## The Maryland Model State Leadership Team:

The Maryland State Department of Education,  
The Division of Student and School Services and  
Education/Early Intervention Services Sheppard  
Pratt Health Systems

Johns Hopkins University

Local School System Behavior Support Coaches

The Team meets monthly to plan and coordinate the training and support for the school teams and behavior support coaches. The Leadership Team also provides training for School-Wide Evaluation Tool Assessors and trains school personnel in the use of the School Wide Information System (SWIS). Additionally, individual team members provide support to specific local school systems.

## Local School System Point of Contact:

All 24 participating local school systems (LSS) in Maryland have identified a specific point of contact (POC) for PBIS. Information regarding upcoming meetings and training opportunities are disseminated through these POCs.

The POC is usually the LSS Director of Student/Pupil Services or the Director of Special Education Services.

## Behavior Support Coaches:

Maryland has trained approximately 100 Behavior Support Coaches. These coaches are usually itinerant staff that support multiple schools working within their discipline. As Behavior Support Coaches, these professionals facilitate the functioning of the existing trained teams and provide leadership within their respective LSSs to continue to expand the initiative. The majority of Coaches are school psychologists, and within the scope of PBIS, they work with 3-5 PBIS schools. Coaches attend PBIS school team meetings and provide ongoing support for the implementation and sustainment of PBIS. Additionally, coaches meet at the state level five (5) times each year to share ideas, and challenges.

For a complete list please visit: <http://pbismaryland.org/members.htm#Montgomery>

## School Teams:

In Maryland, all of the trained school teams have volunteered to participate in PBIS. Since administrative support is so critical to the success of PBIS, administrators (Principal or Assistant Principal) must be a part of the team and attend training sessions. The team also must be representative of the school staff and must agree to collect and use data for all decision making. Additionally, the school must agree to implement PBIS for a minimum of three years.

## High Need Students:

### Functional Behavioral Assessments

A functional assessment of behavior is a problem-solving approach that **(1)** describes clearly the behavior of concern, **(2)** identifies the events, times, and situations that predict when the behavior will or will not occur, **(3)** identifies the consequences that maintain the behavior, and **(4)** develops one or more summary statements that describe specific behavior, the specific types of situations in which the behavior occurs, and the reinforcers that maintain the behavior. Direct observation of the challenging behavior under natural conditions is the foundation for a functional behavioral assessment.

### For more information about functional behavioral assessment:

[http://pbis.org/english/Functional\\_Assessment\\_of\\_Behavior.htm](http://pbis.org/english/Functional_Assessment_of_Behavior.htm)

<http://www.air.org/cecp/fba/default.htm>

### To see a sample functional behavioral assessment plan:

[http://pbis.org/english/Individual\\_Support.htm](http://pbis.org/english/Individual_Support.htm)

### To see a sample behavior support plan:

[http://pbis.org/english/Individual\\_Support.htm](http://pbis.org/english/Individual_Support.htm)

## Activity:

Find out if anyone at your school has been trained to conduct Functional Behavioral Assessments and how these assessments are used to assist students.

Explore with your school system's professional development staff of Office of Student Services how staff at your school might receive training and supervision in conducting FBA's.



# Considerations for Seclusion and Restraint Use in School-wide Positive Behavior Supports

*Robert Horner and George Sugai – April 29, 2009*

*Co-directors OSEP Technical Assistance Center on Positive Behavioral Interventions and Support*

## Concern

Seclusion and restraint refer to safety procedures in which a student is isolated from others (seclusion) or physically held (restraint) in response to serious problem behavior that places the student or others at risk of injury or harm. **Concern exists that these procedures are prone to misapplication and abuse placing students at equal or more risk than their problem behavior.** Concerns include the following:

1. Seclusion and restraint procedures are inappropriately selected and implemented as “treatment” or “behavioral intervention,” rather than as a safety procedure.
2. Seclusion and restraint are inappropriately used for behaviors that do not place the student or others at risk of harm or injury (e.g., noncompliance, threats, disruption).
3. Students, peers, and/or staff may be physically hurt or injured during attempts to conduct seclusion and restraint procedures.
4. Risk of injury and harm is increased because seclusion and restraint are implemented by staff who are not adequately trained.
5. Use of seclusion and restraint may inadvertently result in reinforcement or strengthening of the problem behavior.
6. Seclusion and restraint are implemented independent of comprehensive, function based behavioral intervention plans.



## Toward Effective Policy

1. The majority of problem behaviors that are used to justify seclusion and restraint could be prevented with early identification and intensive early intervention. The need for seclusion and restraint procedures is in part a result of insufficient investment in prevention efforts.
2. Seclusion and restraint can be included as a safety response, but should not be included in a behavior support plan without a formal functional behavioral assessment (a process used to identify why the problem behavior continues to occur).
3. Seclusion and restraint should only be implemented (a) as safety measures (b) within a comprehensive behavior support plan, (c) by highly trained personnel, and (d) with public, accurate, and continuous data related to (1) fidelity of implementation and (2) impact on behavioral outcomes (both increasing desired and decreasing problem behaviors).

## School-wide Positive Behavior Support

**School-wide Positive Behavior Support (SWPBS) is a systems approach to establishing the whole school social culture and intensive individual behavior supports needed for schools to achieve social and academic gains while minimizing problem behavior for all students.** SWPBS is NOT a specific curriculum, intervention, or practice, but a decision making framework that guides selection, integration, and implementation of scientifically-based academic and behavioral practices for improving academic and behavior outcomes for all students. A central feature of SWPBS is implementation of behavioral practices throughout the entire school. SWPBS defines practices that all students experience in all parts of the school and at all times of day.

**SWPBS emphasizes four integrated elements: (a) socially valued and measurable outcomes, (b) empirically validated and practical practices, (c) systems that efficiently and effectively support implementation of these practices, and (d) continuous collection and use of data for decision-making.**

These four elements are operationalized by five guiding principles:

- Invest first in prevention to establish a foundation intervention that is empirically validated to be effective, efficient and sustainable.
- Teach and acknowledge appropriate behavior before relying on negative consequences.
- Use regular “universal screening” to identify students who need more intense support and provide that support as early as possible, and with the intensity needed to meet the student’s need.
- Establish a continuum of behavioral and academic interventions for use when students are identified as needing more intense support.
- Use progress monitoring to assess (a) the fidelity with which support is provided and (b) the impact of support on student academic and social outcomes. Use data for continuous improvement of support.

## Research Supporting Implementation of School-wide Positive Behavior Support

1. Schools are able to implement SWPBS as evidenced by more than 9000 schools using SWPBS across the nation.
2. Schools that implement SWPBS demonstrate reductions in problem behavior and improved academic outcomes.
3. Preliminary evaluation data indicate that more intensive individual student behavior support is perceived as more effective (and less likely to be needed) when SWPBS is implemented.
4. Evaluation (but not experimental) data indicate that implementation of SWPBS is associated with reduction in the number of instances in which intensive interventions (including seclusion and/or restraint) are perceived as needed, increases the effectiveness of comprehensive interventions, and improvement in the maintenance of behavior support gains.

*The development of this paper was supported in part by a grant from the Office of Special Education Programs, U.S. Department of Education (H029D40055). Opinions expressed herein are the author's and do not reflect necessarily the position of the US Department of Education, and such endorsements should not be inferred. Contact: Rob Horner (Robh@uoregon.edu), OSEP Center on Positive Behavioral Interventions and Supports ([www.pbis.org](http://www.pbis.org)), University of Oregon, Eugene.*

## SECTION 3

# Universal Design for Learning (UDL)



# The Facts for Educators

*Educators refers to teachers, para-educators and specialized instructional support personnel*

## 1 – What are Universal Design and Universal Design for Learning?

The term “universal design” refers to the movement within architecture and product development to create places or things that are accessible to as many people as possible, including those with disabilities.

Universal Design for Learning (UDL) is a framework and set of principles to provide ALL students equal opportunities to learn. Using UDL principles in the general education classroom makes curriculum and instruction accessible and engaging for all learners. Curriculum barriers are reduced; learning is supported; students gain knowledge, skills, and enthusiasm for learning; and their learning is validly assessed.

## 2 – What are the benefits of UDL?

As any educator knows, students come to the classroom with a variety of needs, skills, talents, interests and diverse learning styles. For many learners, the typical curriculum is littered with barriers and roadblocks, while supports are relatively few.

UDL turns this scenario around and supports curriculum design that is responsive to today’s diverse classrooms. UDL improves educational outcomes for ALL students by ensuring meaningful access to the curriculum and accurate skill and knowledge assessment. In addition, UDL complements existing school reform initiatives.

## 3 – What are the principles of UDL?

Provide multiple and flexible methods of **presentation** to give students with diverse learning styles various ways of acquiring information and knowledge.

Provide multiple and flexible means of **expression** to provide diverse students with alternatives for demonstrating what they have learned, and

Provide multiple and flexible means of **engagement** to tap into diverse learners' interests, challenge them appropriately, and motivate them to learn.

Using these three principles, UDL embeds flexibility into the components of the curriculum: goals, teaching methods, instructional materials and assessments.

## 4 – Isn’t UDL just for students with disabilities?

Absolutely not. UDL was first mentioned in regard to making instruction accessible for students with disabilities, but it is a format that gives ALL students the opportunity to learn. For example, video captioning is of great help to students with hearing impairments—and is also beneficial to students who are learning English, students who are struggling readers, students with attention deficits, and even students working in a noisy classroom.

## 5 – In what ways does UDL provide access to the general education curriculum for all students?

Brain research tells us that learning requires interconnections. Using the principles of UDL embeds flexibility into key aspects of the general education curriculum: goals, teaching methods, instructional materials and assessments. UDL allows ALL learners to make interconnections and use their skills and interests to fully engage in the learning situation.

Increasing physical access and eliminating physical barriers to educational sites is an essential step in universal design but genuine learning requires much more than physical access—it requires cognitive (or intellectual) access, too.

For example, providing a digital text of a novel with built-in comprehension supports is one way to apply the principle of multiple means of presentation to instructional materials. A student who has difficulty reading printed text could use the text reader feature, while a student who needs help with reading comprehension could use imbedded vocabulary definitions, highlighted abstract literary concepts, foreign language translations, or animated coaches that assist with answering comprehension questions.

For examples see <http://udleditions.cast.org>

Cont.

# The Facts for Educators

*Educators refers to teachers, para-educators and specialized instructional support personnel*

## 6 – What legislation calls for the use of UDL?

The Individuals with Disabilities Education Act of 2004 and the Higher Education Opportunity Act of 2008 have provisions for Universal Design and Universal Design for Learning.

Individuals with Disabilities Education Act. The Task Force also seeks increased dissemination of information about UDL by the U.S. Department of Education and other federal agencies.

See the UDL Toolkit at <http://www.osepideasthatwork.org/udl>

## 7 – What is the role of educators in UDL implementation?

Educators are key to UDL implementation. They can promote the use of UDL by:

- Serving on curriculum selection committees and encouraging school districts to purchase curriculum materials that incorporate UDL principles.
- Adopting UDL principles in designing and planning the instructional strategies for their classrooms.
- Demonstrating how to use UDL principles to their teaching colleagues.
- Requesting professional development on UDL for all educators in their school or district.

The National UDL Task Force is comprised of 41 national education and disability organizations. For a complete listing of Task Force members, visit our website at <http://www.udl4allstudents.com>

## 9 – Where can I find more information?

We welcome your support - come join us in our efforts.

Visit our website at [www.udl4allstudents.com](http://www.udl4allstudents.com) or contact Ricki Sabia at [rsabia@ndss.org](mailto:rsabia@ndss.org)

## 8 – What is being done to promote the implementation of UDL?

The National UDL Task Force works to incorporate the principles of UDL into federal policy and practice initiatives and to promote UDL in the school environment. Language recommended by the Task Force was incorporated into the Higher Education Opportunity Act of 2008. In addition, the Task Force has recommended UDL legislative language for the reauthorization of the Elementary and Secondary Education Act and will make recommendations for the reauthorization of the



*Excerpt from:*

## **A Route for Every Learner:**

### ***Universal Design for Learning (UDL) as a Framework for Supporting Learning and Improving Achievement for All Learners in Maryland, Prekindergarten Through Higher Education***

Universal Design for Learning (UDL) is a research-based framework for curriculum design that includes the educational goals, methods, materials, and assessments that enable all learners to sustain their enthusiasm for learning while gaining the knowledge and skills required for successful mastery of desired outcomes. This is accomplished by simultaneously providing rich supports for learning which reduce learning barriers that may be inherent in the curriculum, while maintaining rigor and high achievement standards for all students.

Universal Design for Learning (UDL) is based on three primary principles:

- *Multiple means of representation*, to give diverse learners options for acquiring information and knowledge,
- *Multiple means of action and expression*, to provide learners options for demonstrating what they know,
- *Multiple means of engagement*, to tap into learners' interests, offer appropriate challenges, and increase motivation (from Center for Applied Special Technology, CAST, Web site, [www.CAST.org](http://www.CAST.org).)

UDL provides a framework for curriculum design, instructional processes, and assessment that gives all students equal opportunities to learn and to demonstrate what they have learned. Based on neurological research, UDL recognizes that learning is different for each individual, and therefore, for optimal learning to occur a variety of methods and materials to implement, support and measure learning are needed. UDL builds flexibility for learners into curriculum and assessment at the development stage, which enhances teachers' ability to make adjustments for a broader range of students during classroom instruction. Most importantly, all learners benefit from UDL—including students who are gifted and talented, English language learners, students with physical, cognitive, and/or sensory disabilities, learners who may be a part of more than one of these types of learners, and students without disabilities. In fact, UDL in education is analogous to Universal Design in architecture, where, for example, ramps and curb cuts designed for people in wheelchairs are now considered essential by people without disabilities, such as parents pushing strollers or people moving heavy furniture.

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Recommendations from the Task Force to Explore the Incorporation of the Principles of Universal Design for Learning into the Education Systems in Maryland, submitted to the Maryland State Board of Education, the Senate Education, Health, and Environmental Affairs Committee, the Budget and Taxation Committee, the House Committee on Ways and Means, and the Health and Government Operations Committee, March 2011; See full report on the Maryland State Department of Education website at [http://marylandpublicschools.org/NR/rdonlyres/517D465A-F0B5-40DD-BB4B-E98EA716EC46/28188/A\\_Route\\_for\\_Every\\_Learner\\_Report\\_NSQ\\_032511\\_w.pdf](http://marylandpublicschools.org/NR/rdonlyres/517D465A-F0B5-40DD-BB4B-E98EA716EC46/28188/A_Route_for_Every_Learner_Report_NSQ_032511_w.pdf)



## *Universal Design for Learning Benefits All Maryland Students and Teachers*

UDL is particularly relevant to Maryland's systems of education. Maryland is known for its high expectations for all students as well as for the diversity of its student population. This is a challenge when one considers that in all schools and institutions of higher education there are students who struggle to meet standards, as well as those who are ready for more rigorous instructional programming. The use of UDL principles and guidelines in curriculum and course design are critical for learner success. Meeting the diverse needs of students requires a creative, flexible approach to education. UDL is such an approach.

....Teacher efforts are supported by having Universal Design for Learning integrated into curriculum. Through the provision of flexible instructional materials, techniques, and strategies for differentiating instruction that addresses diverse learner needs, teachers are able to provide students with a variety of opportunities to achieve success. (Report, p. 1-2)

As described by the Center for Applied Special Technology (CAST, 2011b), "Universally designed curriculum provides options for:

- Presenting information and content in different ways (the 'what' of learning)
- Differentiating the ways that students can express what they know (the 'how' of learning)
- Stimulating interest and motivation for learning (the 'why' of learning)." (Report, p.2)

### ***Evidence of UDL in Classrooms ("Look Fors") (Report, p. 17-18)***

There are a number of indicators that reveal UDL principles and guidelines are being implemented in the classroom. [Some examples include:]

- Access to tools and strategies that provide flexibility in presenting information, engaging students, and demonstrating knowledge.
- When teachers impart information, multiple methods are used that tap into diverse learning needs as a complement to verbal presentations and the use of written text.
- Flexibility for how students will demonstrate what they know (e.g., choices of process and product).
- Charts and Advance/Graphic Organizers providing various levels of scaffolding and support throughout the instructional process.
- Print-based materials enhanced with images to help teach concepts.
- Areas within the classroom designed for small group instruction.
- A variety of instructional methods are used to maximize student engagement.
- Meaningful participation in learning activities by every student in the class, regardless of ability level.

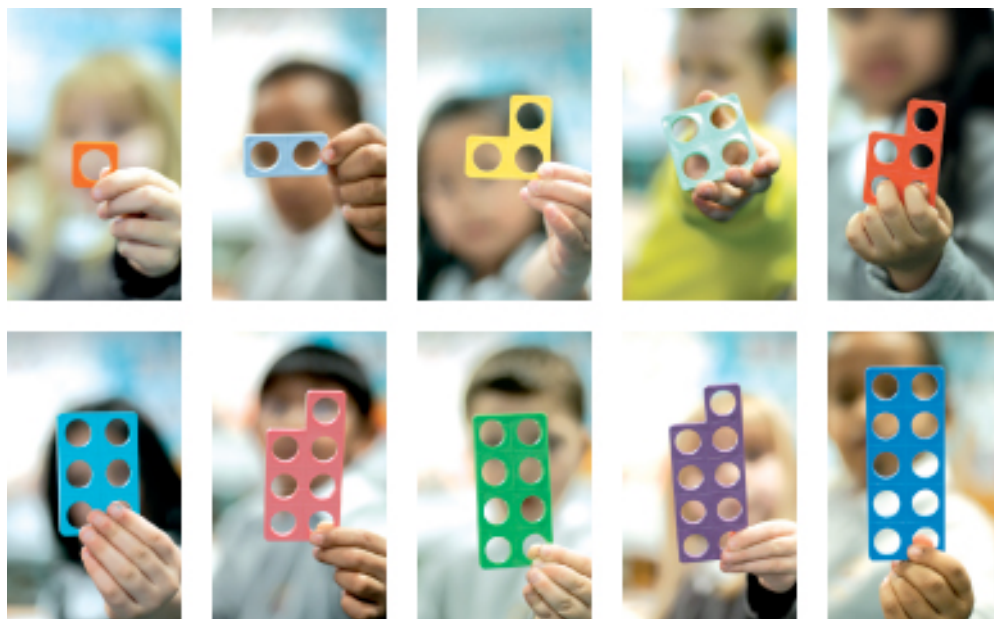


# SECTION 4

## Math Resources and Tips



# The Numicon Project



***The Numicon Project is a collaborative endeavor to facilitate children's understanding and enjoyment of math.***

The Project was founded in the daily experience of intelligent children having real difficulty with math, the frequent underestimation of the complexity of the ideas that we ask young children to face and recognition of the importance of math to them and to society as a whole.

We appreciate the complexity of these early number ideas and seek to foster the self-belief necessary to achieve in the face of difficulty; we are not about 'making math easy'.

We believe that the combination of action, imagery and conversation helps children to structure their experiences, which is such a vital skill for both their mathematical and their overall development.

By watching and listening to what children do and say, we and many others are finding that our developing multi-sensory approach provides learners with the opportunity to play to their strengths, thereby releasing their potential to enjoy, understand and achieve in math. This enjoyment in achievement is also shared by teachers and parents.

We strive to support teachers' subject knowledge and pedagogy with teaching materials, training and ongoing feedback as we continue to develop a better understanding of how we can work together to encourage all learners in the vital early stages of their own mathematical journey.

# Cambridge LA Trials

During 2006-7 Cambridge LA conducted trials in the use of Numicon in the form of 10-week Wave 3 interventions. The reported results, summarized in the table opposite, show notable progress for the vast majority, together with greatly improved mathematical self-confidence in the children.

It should be noted from the results that striking gains are being made in fundamental aspects of calculation by children who had hitherto come to regard themselves as failures. The combination of a new self-confidence and an understanding of very basic number ideas is providing these children with the best possible platform for their future success.

## COMMENTS FROM TEACHERS

"Numicon is a highly visual resource which can be used to explain 'abstract' concepts in a clear way."

**Jayne Evans, Yarm Primary**

"I would just like to say how valuable the Numicon products have been to me as a Teaching Assistant in Year 1. We purchased a pack of Numicon shapes, pegs, large number line and a small table number line from the Education Show. My SEN group have suddenly understood addition and number bonds. Higher ability groups have been able to sort the shapes into odd and even just by looking at them."

**Nikki Horobin**

"Numicon is defiantly a brilliant program for all levels of children"

**Shahana Begum**

"The children I am using Numicon with are loving it & it quickly became apparent how much they were benefiting from using it."

**Sarah Hyland**

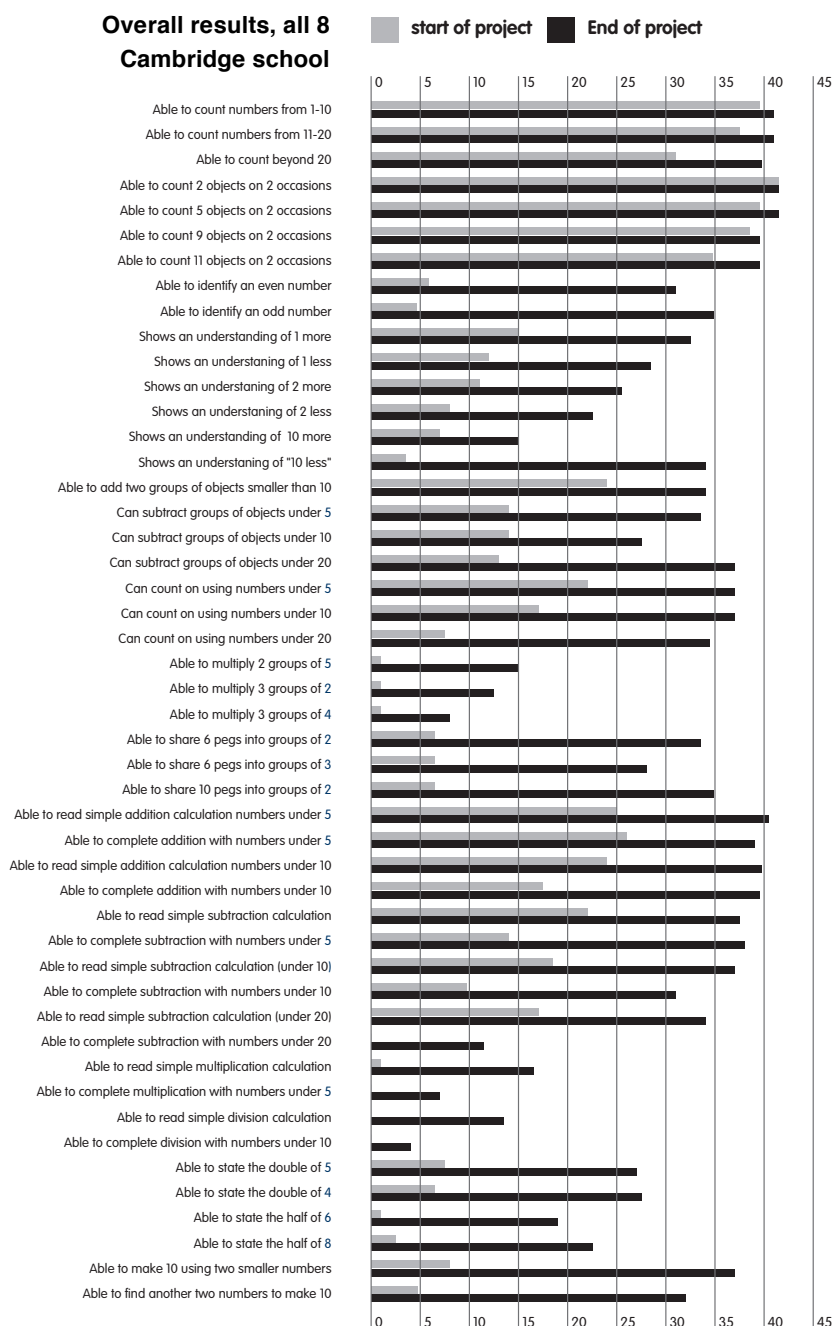
## COMMENTS FROM CHILDREN

"I used to be bad at math, now it's my best"

"I like it 'cos I can see patterns in the numbers"

"Our children write a self-assessment as part of their annual report, this year several commented 'I am good at math'. This is a welcome change since they have been using Numicon"

## Overall results, all 8 Cambridge school



## The Alphabet of Mathematics® Since 1975

### Why teach TouchMath?

Each day we hear from educators like you who tell us that TouchMath helps them reach different types of learners, build strong skills and raise math test scores. Decades of research support these classroom experiences citing TouchMath's multisensory approach and adherence to child development protocol as key factors.

Here's why teachers have relied upon TouchMath for more than 30 years:

- Research-driven, multisensory approach works for students of all ability levels and learning styles
- TouchPoints help develop math literacy and bridge the gap to memorization
- Step-by-step methodology guides students through the concrete and pictorial stages to abstract learning
- Periodic assessments prepare students for testing
- Teacher training opportunities
- Materials are affordable and 100% guaranteed

### ***See It, Say It, Hear It, Touch It, Learn It - Only with TouchMath.***

Children learn most effectively when all of their senses are involved. As they see, say, hear and touch using our signature TouchPoints on the numerals, they easily make the connection between the numeral and the quantity it represents. Here's why teachers have relied upon TouchMath for more than 30 years:

- Research-driven, multisensory approach works for students of all ability levels and learning styles
- TouchPoints help develop math literacy and bridge the gap to memorization
- Step-by-step methodology guides students through the concrete and pictorial stages to abstract learning
- Periodic assessments prepare students for testing
- Teacher training opportunities
- Materials are affordable and 100% guaranteed

### ***TouchPoints.***

TouchPoints are unique to the TouchMath program and provide these advantages

- Children enjoy a multisensory math experience while keeping their attention focused on their papers
- Older students and students with learning differences can use TouchPoints as a portable, invisible tool for as long as needed
- Students arrive at the correct answer without guessing
- TouchPoints help develop comprehension and memorization

## The Alphabet of Mathematics® Since 1975

### Visual Cues.

The TouchMath program uses visual cues such as arrows, boxes and dotted lines to guide students to the correct answer and promote good habits. Visual cues help to:

- Develop left/right directionality
- Reduce number reversals
- Periodic assessments prepare students for testing
- Understand place value
- Simplify and clarify all areas of computation

$$\begin{array}{r|l} \text{Tens} & \text{Ones} \\ \hline \boxed{7} & 5 \\ + & 17 \\ \hline 9 & 2 \end{array}$$

$$\begin{array}{r|l} \text{Tens} & \text{Ones} \\ \hline 8 & 1 \\ - & 53 \\ \hline 3 & 8 \end{array}$$

### Step-by-step strategy.

Our sequential strategy is structured so that students fully understand one skill before we introduce the next. They feel optimistic and confident as they assimilate new information. You save the time and frustration of teaching and re-teaching.

$$\begin{array}{r} 8 \\ + 5 \\ \hline 13 \end{array}$$

Beginning Addition

$$\begin{array}{r} 9 \\ + 7 \\ \hline 16 \end{array}$$

Addition with Counting On

$$\begin{array}{r|l} \text{Tens} & \text{Ones} \\ \hline 6 & 3 \\ + & 15 \\ \hline 7 & 8 \end{array}$$

Double-Digit Addition with Visual Cues

$$\begin{array}{r|l} \text{Tens} & \text{Ones} \\ \hline \boxed{6} & 4 \\ + & 28 \\ \hline 9 & 2 \end{array}$$

Double-Digit Addition with Regrouping

### Age-appropriate materials.

Our designers are acutely aware of the importance of building student self-esteem as we deliver information. For young children, this means plentiful workspace, a manageable number of problems on each page, large print, instructions that do not require reading skills, coloring pictures and games. Materials for older students of varying ability levels use fewer pictures and age-appropriate content.

$$\begin{array}{r|l|l} \text{H} & \text{T} & \text{O} \\ \hline \boxed{5} & \boxed{3} & 6 \\ + & 2 & 78 \\ \hline 8 & 1 & 4 \end{array}$$

Three-Digit Addition with Visual Cues

$$\begin{array}{r|l|l} 4 & 2 & 7 \\ + & 3 & 49 \\ \hline 7 & 7 & 6 \end{array}$$

Three-Digit Addition With Some Cues

$$\begin{array}{r} 380 \\ + 167 \\ \hline 547 \end{array}$$

Three-Digit Addition Without Cues

# TouchMath

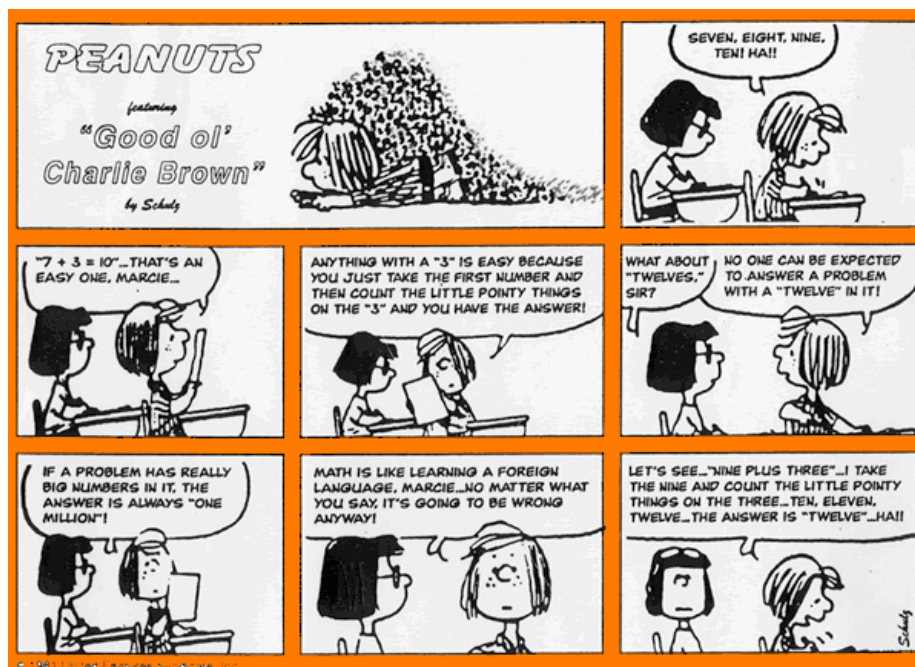
## The Alphabet of Mathematics® Since 1975

### How it works.

You can use the TouchMath program to give young children a head start, supplement a grade-level curriculum (pre-K–3), provide enrichment activities and reinforcement, and achieve the best possible outcomes for students with special needs. TouchMath is an intuitive process, designed by and for young learners.

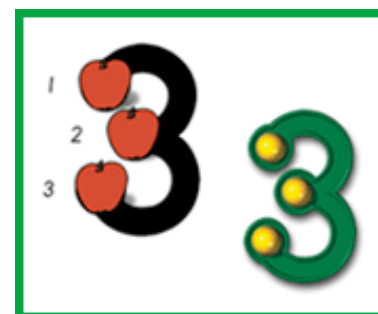
### Visual Cues.

The secret to TouchMath is simple. In fact, it can be summed up in one word: TouchPoints. Each numeral



from 1 through 9 has TouchPoints corresponding to the digit's value.

- Numerals 1 through 5 have single TouchPoints
- Numerals 6 through 9 have double TouchPoints
- As students count the TouchPoints, they associate numerals with real values. They learn that a numeral (3, for instance) is not just a squiggle on a page. It represents a quantity such as three apples, three ladybugs, three buttons or three TouchPoints.



### Touching/Counting Patterns.

Students count aloud as they touch the single TouchPoints once and double TouchPoints twice. This multisensory approach engages students on auditory, visual and tactile/kinesthetic levels.

To ensure that students arrive at the right answer, it is important that they touch the TouchPoints in the correct Touching/Counting Pattern for each numeral. The Touching/Counting Patterns are shown below.

### Counting is the key.

Computations are easier using TouchMath because all basic operations are based on counting. In TouchMath addition, students count forward. In subtraction, they count backward. In multiplication and division, they count in sequences. Students touch, count and repeat each problem and answer aloud to reinforce fact mastery.

*Using pictorial objects and our trademarked TouchPoints, we teach young children to associate numerals with real values (number quantities).*

## **SECTION 5**

# **Reading & Writing Resources and Tips**





# Research Achievements

Down Syndrome Education International has been at the heart of developmental and educational research for young people with Down syndrome for 30 years. We have improved understanding of the condition and pioneered effective teaching methods that deliver marked improvements in the development of speech, language, reading and cognitive skills.

Down Syndrome Education International grew from a research project at the University of Portsmouth that began in 1979, when the father of Sarah Duffen, a child with Down syndrome, wrote to [Sue Buckley](#) about his success in teaching his daughter to read from the age of 3 years.

This was the impetus for our first research project investigating reading development in young children with Down syndrome. It marked the beginning of a continuous program of developmental and educational research that has led to many key advances in our understanding of Down syndrome.

## Visual Learning Strengths

Children with Down syndrome find learning from listening more challenging due to hearing and verbal processing difficulties, and this leads to delays in speech, language and cognitive development. The charity's research has shown that using visual teaching methods, such as reading, can lessen the impact of these difficulties and reduce the delays in speech, language and cognitive development. We have found that children with Down syndrome use visual reading strategies for longer (at higher reading ages) than their typically-developing peers.

## Reading Development

The charity's studies have shown that most children with Down syndrome can learn to read and should start in their pre-school years. We have found that early sight word reading is a particular strength for preschool children with Down syndrome and that reading continues to be strength in later years.

## Educational Placements

The charity's research has found that children with Down syndrome who are fully included in mainstream schools have better speech and language skills, are more likely to be reading and writing, and to have more mature social behavior than those taught in segregated settings.

## Memory Skills

Our studies have shown that memory training can improve both visual and verbal short-term memory - when provided in inclusive classrooms alongside literacy instruction.

## Number Skills

Down Syndrome Education International's research has found that learning to understand number can be a particular difficulty and the children's number performance is usually about two years behind their literacy skills.

We have found that early understanding of counting is, however, as good as in non-verbal mental age matched peers so more research is needed to identify the problems with later number.

We have found some evidence that using visual/multi-sensory teaching methods can assist children with Down syndrome to understand the number system and to calculate, but further research is needed.

## Sleep

Our research has shown that sleep disturbance is more common in children with Down syndrome than in their brothers and sisters or other children with learning disabilities. Sleep disturbance could be linked to sleep apnea and breathing difficulties or to behavioral difficulties around settling and night waking. Both types of sleep difficulties were related to an increase in behavioral difficulties during the day and an increase in maternal stress.

# *See and Learn* Language and Reading

*See and Learn* Language and Reading is a program of activities designed to help children who have Down syndrome learn to talk and read. It is based on research into the visual learning strengths of young children who have Down syndrome, and may also be useful for other children who may benefit from a visually-based approach to learning to talk.

## **About the Program**

The *See and Learn* Language and Reading program provides a step-by-step structure to promote two key areas of language development:

- Vocabulary development - the number of words a child knows
- Grammar development - a child's knowledge and skills in combining these words into sentences

The program aims to build on and complement the language learning that occurs through a child's everyday interactions and play.

## **About the Steps**

The *See and Learn* Language and Reading program consists of five steps grouped into the three stages. Each stage contains a step with a focus on vocabulary development. The two later stages also contain a step with a focus on teaching reading to develop grammar (how words fit together into sentences).

## **Stage 1**

- Step 1 - *See and Learn*

### First Word Pictures:

This first step is designed for children who are at the first stage of learning language. It contains activities to help children learn 60

common first words using pictures. This step also prepares children for learning to read by developing their visual skills through matching activities that they will use during later stages.



## **Stage 2**

- Step 2 - *See and Learn* First Written Words: This step teaches children to read 16 written words, taken from *See and Learn* First Word Pictures. When children have a vocabulary of more than 50 words, they begin to combine words together, so this step also uses reading to support children in understanding and using combinations of two 'key' words. This step is designed to be used at the same time as *See and Learn* More Word Pictures.

- Step 3 - *See and Learn* More Word Pictures: This step uses pictures to introduce a further 55 words that are common in children's early vocabularies. This step is designed to be used at the same time as *See and Learn* First Written Words.

## **Stage 3**

- Step 4 - *See and Learn* First Sentences: This step teaches reading of a further 16 written words, taken from *See and Learn* More Word Pictures, and uses reading to support children in understanding and using simple sentences containing three 'key' words.

- Step 5 - *See and Learn* More Sentences: This step introduces approximately 100 more written words within simple sentences. This step continues to use reading as a visual support for language development, to help children understand and use a wider range of sentences with three 'key' words.

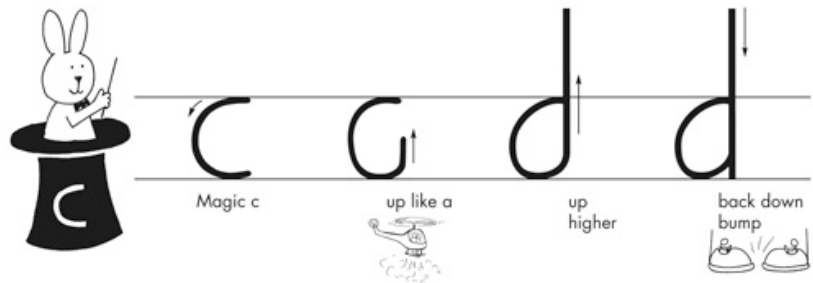
# Handwriting Without Tears®

***Handwriting Without Tears® is a proven success in making legible and fluent handwriting an easy and automatic skill for all students.***

HWT uses fun, entertaining, and educationally sound instructional methods to teach handwriting to all students: pre-k through cursive. The well-planned lessons require minimal preparation time. Thousands of administrators, teachers, therapists, and parents across the country have successfully implemented the program. The result truly is handwriting without tears for all!

The Handwriting Without Tears® teachers' guides are designed for the busy educator to provide easy lessons, teaching strategies, tips, advice, and teaching guidelines for daily instruction. They are packed with everything you need to teach handwriting successfully:

- Individual guides by grade packed with tips and activities
- Lesson plans for each page of the student workbooks
- Multisensory lessons
- Teaching guidelines by day and week
- Strategies for integrating with other language arts programs
- Tips for succeeding on all styles of paper
- Scope and sequence of handwriting instruction
- Strategies for identifying and correcting problems



Nevertheless, we are constantly developing new ideas and content that makes handwriting easier to teach and learn. To make this information available to our users, we have created a password protected section of our website exclusively for those who have a 2008 Edition teacher's guide. In this section, you'll find:

- New tips
- In-depth information about topics covered in the guides
- Extra practice sheets
- Other instructional resources
- Materials to share with students, parents, and peers

## SECTION 6

# Inclusive Practices & Social Development



# From a Teacher's Perspective - Full Circle on Inclusion



***"When your heart is in your dream, no request is too extreme..." —Jiminy Cricket***

My definition of inclusion is simply that students with disabilities should be integrated into general education classrooms whether or not they can meet traditional standards of the curriculum and should be full members of those classrooms.

I remember the first time I ever heard the term Inclusion. Though I am a first grade teacher in a public school, school was not where I first learned this term. I first heard it from my sister Dru. Her son, Taylor, was born with Down syndrome 12 years ago. From that point, Dru began educating herself about Down syndrome, and channeling that information to our extended families. She now works for the National Down Syndrome Congress located in Atlanta, GA. She refers to herself as Taylor's CEO, a position to which she has given her utmost.

Before Taylor entered kindergarten several years ago, Dru started using the term Inclusion. Through interacting with Taylor as he has grown and a series of lengthy conversations on the subject, I realize my philosophy on Inclusion has come full circle. I saw it first from a teacher's standpoint, then from an empathic sister's standpoint, then back to an (enlightened and educated) teacher's standpoint. The culmination of my changing views was a trip to Phoenix, AZ to attend the National Down Syndrome Congress Convention. I was able to get to know many youth and adults with Down syndrome, and attended a workshop on Inclusion.

When my sister first started mentioning Inclusion, I (the teacher) had arched my back, rebelled, and defended teachers in general with thoughts such as, "How can you expect a teacher with 25 students to teach a student with special needs too? That one student would take up too much of my time! I'm not trained to teach special education! How would I grade him and be fair to everyone involved?"

After a while of watching my precious nephew grow, seeing his sense of humor and individuality, and seeing how he learns, my view of Inclusion changed. This time I saw it through the eyes of a sister and an aunt. I saw the difference it made to Taylor to change his placement from a "handicapped" class (kids with Down syndrome labeled severe to moderate, and kids with cerebral palsy, paraplegia and quadriplegia) to an inclusive setting. Children with Down syndrome learn an incredible amount through modeling from their peers. Think about it-on that basis alone there is a strong argument for Inclusion. But there are other benefits as well; I will never forget the day Dru called with excitement in her voice to tell me that Taylor had been invited to his first "real" birthday party. He had been totally included in the party planning by a friend who is a typical kid. Milestones such as this are so important. Studies show that occupational success or failure is tied to the acquisition of social skills.

This brought me full-circle to the view of an enlightened and educated teacher. I am excited about the challenges and possibilities of inclusion and willing to try it in my first grade classroom.

I have learned much about collaborating with other teachers how to make a mutual partnership successful, through trust, respect, time management, and space and role boundaries. I look forward to the challenge of implementing these skills. By having a working knowledge of co-teaching methods, a creative, trained teacher should be able to assess the situation and the needs of the student and use an appropriate teaching method.

I was especially motivated by a workshop presentation I attended at the [NDSC](#) Convention in Arizona. *Pathway to a Higher I.Q. (Inclusion Quotient): Teaching Salient Achievable Information*, was presented by Christine Hockel, a sixteen-year-old with Down syndrome, her mom Judie Hockel, and two education professionals. The first step in the IEP process for the Hockel family is finding the Teachable Salient Achievable Points. This requires the classroom teacher or someone familiar with the curriculum to edit down the course content to the information or objectives that Christi most needs to learn.

The workshop discussed strategies such as communication, accommodations, modifications and adaptations to successfully carry out inclusion. Often, some of the vocabulary would be pre-taught. In the Biology class, for example, the special education teacher compiled a study guide with important vocabulary that the typical students probably already understood, such as "biodegradable" and "taxonomy." The special education teacher used her expertise to come up with creative ways to teach the study guide vocabulary, and in some cases bound the study guide for reuse. To learn "biodegradable" the two students with Down syndrome visited the teacher's compost pile and a recycling center where they helped sort the recyclables. To teach taxonomy the teacher made up sign language. For ten legged creatures, they signed with 10 wiggly fingers. Eight legged creatures became 8 wiggly fingers plus the sign symbol for "A" for Arachnids. Six legged creatures were 6 wiggly fingers plus the sign symbol for "I" for insects.

If there were a lesson that Christi did not need the special ed. teacher would use that time to teach something more meaningful to Christi. For example, the time might be used to preview a video that would be part of the next day's lesson with her typical peers. Previewing the tape had the advantage of being able to start and stop the tape for discussion, and to review critical vocabulary. All of these require excellent teacher planning, communication, and coordination, but it is well worth it.

The issues of grades and the fairness of assigning those grades no longer seems like the "Big Hairy Monster" I once perceived it to be. Once you have your IEP and your Teachable Salient Achievable Points, the grade can be assigned with a "modified" notation.

Inclusion is an evolving process, which requires communication, planning, coordination, and sometimes trial and error from everyone involved, from the administration to the custodian. I'm ready to sink my teeth into it.



## Is This Inclusion? Questioning Removal, Rejection and Exclusion

I was visiting an elementary school when I passed a little boy sitting on the floor in the hallway crying and sucking on his wrist. When I asked another teacher about the child she told me, "Oh that's Peter. He's out there more than he's in the classroom. He can't handle it."

I fear there are a lot of Peters out there waiting for opportunities to re-enter the inclusive classroom. Many students who are included in general education environments are only allowed in for a portion of the school day. Others are allowed in on a contingency plan; they can stay as long as they can behave.

Too often, students with disabilities are asked to leave the classroom or are escorted out of educational environments without their permission. Faber and Mazlish (1995), ask us to put ourselves in the place of a student who is isolated. "As an adult you can imagine how resentful and humiliated you would feel if someone forced you into isolation for something you said or did" (p. 115). For a young person, however, this type of rejection can be even more serious, since he or she may come to believe "that there is something so wrong with her that she has to be removed from society" (p. 115-116). Vivian Paley (1992) reminds us that teachers send powerful messages of exclusion and rejection when they isolate learners; these messages impact students and the classroom:

Thinking about unkindness always reminds me of the time-out chair. It made children sad and lonely to be removed from the group, which in turn made me feel inadequate and mean and -- I became convinced -- made everyone feel tentative and unsafe. These emotions show up in a variety of unwholesome ways depending on whether one is a teacher or child. (p. 95)

This tendency to send the student away from the group is incredibly problematic. When at all possible, it is best to support and address challenging situations in the environments where they occur. Removing students from places where they should feel belonging is detrimental to the building of community and, often, to the processes of teaching and learning.

### What's the harm?

One of the primary reasons students should not be removed is related to the definition of inclusion; students should feel without question that they are members of their classroom community and they should not have this membership constantly threatened. Asking or forcing students to leave an educational environment may even cause new problems both for them and for teachers; students removed from the classroom may feel rejected, hurt, or confused and, in response, may struggle academically, socially, or emotionally. Students who are removed from the classroom also lose valuable content when they are away from the curriculum and

instruction of the general education classroom. Students miss instruction, they lose work time, and they have fewer opportunities to interact and learn from peers.

Further, students need to learn to negotiate behaviors in the most natural ways possible. Students cannot learn social skills without opportunities to make friends, they cannot learn communication skills without interacting and working with classmates, and they cannot learn competencies related to behavior if they are not allowed to solve problems and work through difficulties with others in authentic environments.

Finally, removing students from the inclusive classroom frames the behavior as the student's problem and prevents students and teachers from understanding behaviors as complex and socially situated. If a student is removed from the classroom the teachers and the students are unable to see how the classroom community, the environment, the behaviors of others, and the curriculum and instruction might be impacting a student's actions, feelings, movements, and moods.

Of course any student may need to leave the classroom for a variety of reasons throughout the day, and it is important for students to have this option when they feel upset or angry. Further, students may need to leave the classroom at times so that their dignity can be preserved and protected; if a student needs privacy or wants a break it should be provided. There is absolutely nothing wrong with having a safe, comfortable place where any student can go to relax, calm down, or to have a few minutes alone. In fact, all students should be given this option, and when a situation escalates, the child can be calmly reminded that he can use this space. In one classroom, the teacher checked in with a student with autism at regular intervals. When he seemed anxious or when he began to "melt down" a bit, she would calmly ask him in a whispered voice if he needed a break. She would show him the sign language gesture for "break" and ask him to imitate the sign. She would then guide him gently to the classroom hall pass and direct him out of the room, teaching him in a very direct and supportive way, how to get the time and space he needed.

Clearly, students with unique learning, behavior, and communication needs can be supported sensitively in the inclusive classroom. Why then is behavior so often cited as a reason why students with disabilities must be removed from the general education classroom? Perhaps it is because teachers are taught to examine "problem behaviors" in students instead of thinking of student struggles as difficulties that must be interpreted, seen in context, and understood in relation to curriculum, instruction, and the school environment.

## Is This Inclusion?

### Questioning Removal, Rejection and Exclusion

#### A Success Story

Consider the story of Todd, a young man with very unique learning and behavior characteristics. On Todd's first day of third grade, he ran through the building, crawled under tables, banged his head against the cement floor of the locker room, and screamed every time he heard the fire alarm. Teachers in the building were apprehensive. Todd, who was educated in segregated, special education schools for several years, seemed scared and confused in his new inclusive school.

I was certainly nervous about working with Todd; I desperately wanted him to be successful and was unsure of where to begin in supporting him but I was fairly certain that our school was the best community for him. When my colleagues challenged Todd's placement, suggesting that he needed a more restrictive environment, our administrators pointed out that it was most likely the more restrictive environments that had facilitated the development of so many of Todd's behaviors.

Indeed, Todd had been educated with several non-verbal students for years and was, therefore, unaccustomed to typical classroom communication behaviors. He was educated with two students who banged their heads and he, therefore, adopted head-banging behavior. He was never given instructional materials to handle on his own, so he was unaware of his new teacher's expectations. He had been educated all day in one room so changing environments during the day and "traveling" through such a big school was quite confusing at first.

Changes came slowly but consistently for Todd. Teachers, however, were cautiously optimistic, hopeful, and open-minded. They watched and waited for success and it came. After spending a lot of time observing other students and engaging in typical school routines, Todd was able to use some speech and sign language to request a drink of water or a trip to the bathroom. Students learned his communication system and began socializing with him. Very slowly, his head-banging disappeared.

Todd also learned where to put his belongings and materials in the classroom and began using a picture schedule to learn about daily activities. After a few weeks, he learned where he was supposed to be at different points in the day and stopped running around the building. His teacher then acquired a few small rocking chairs and some floor pillows and Todd stopped crawling under desks, opting instead to sit in his desk, on the chairs, or propped up against the pillows.

Teachers and students helped Todd prepare for the annoying fire drill sounds. Two students flanked Todd the moment the alarm sounded and they modeled how he could put his hands on his ears as he walked out of the building. While he never grew accustomed to the noise, Todd's screaming ceased and he was able to tolerate the sporadic drills.

It took several months for Todd to acclimate, but after only a few weeks the staff marveled at how different this young man looked and acted. He continued to make impressive gains and by his fifth grade year, Todd was participating in all aspects of classroom life, accessing the general education curriculum, and working collaboratively with peers. He became a member of the track team and sang in a school musical. While he once had a paraprofessional sitting next to him at all times, Todd could now work in his classroom with only occasional "spot-checks" by a paraprofessional or special education teacher.

Todd's success can be directly attributed to the inclusive philosophy his teachers held and practiced. If Todd had been seen as "the problem" then teachers would not have created adaptations for him; they would not have given him time to learn about his surroundings; and they would not have adjusted their own expectations or practices. Todd's teacher did not see him as "the problem", though. Instead, they viewed *the situation* as challenging and collaborated with Todd to make the school a familiar and welcoming place to learn.

Too many students are excluded because they are thought to "own" their behaviors and because these behaviors are assumed to be unchangeable. While behavior can certainly pose a challenge to certain students, their peers, and their educators, it should not serve as a barrier to inclusive schooling. In fact, inclusive schooling may be exactly what students like Todd need most. Todd teaches that ultimately, we need to face challenges with ideology and develop ways of supporting students that resonate with the beliefs and values we want to promote in our inclusive classrooms and schools.

***For students with high incidence disabilities, a higher percentage of make academic progress in general education classes compared to students in traditional, resource settings.***



## Inclusive Education Research & Practice

### Inclusion Works!

Over 20 years of research has consistently demonstrated that the inclusion of students with disabilities in general education classrooms results in favorable outcomes. Positive outcomes have been shown for both students with high incidence disabilities (learning disabilities and other "mild" disabilities) and those with low incidence disabilities (intellectual, multiple, and "severe" disabilities). This body of research includes quantitative studies where the standard is replication as well as qualitative studies that aim for complete, detailed descriptions in order to answer 'how' questions.

### Placement Matters:

Studies investigating the effects of placement in general education classrooms reveal positive outcomes in the areas of IEP quality, time of engagement, and individualized supports. Significant increases in IEP quality on measures of age appropriateness, functionality, and generalization were found when students moved into general education classes from special education settings even though the special educator remained the same (Hunt & Farron-Davis, 1992). Within the general education classroom, there was an increase in the amount of instruction on functional activities as well as basic academic skills such as literacy for students with severe disabilities (Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994). In addition, students were observed to be less engaged and often more alone in self-contained classrooms.

Similar student engagement outcomes were reported in a study involving nine elementary students with severe disabilities who were observed in both special and general education, settings. General education classrooms delivered more instruction, provided a comparable, amount of 1:1 instruction time, addressed content more, and used, non-disabled peers more and adults less (Helmstetter, Curry, Brennan, & Sampson-Saul, 1998).

Furthermore, comparisons of the two settings revealed a significant difference in non-instructional time. In self-contained classes, 58% of the time was classified as non-instructional versus 35% of the time in general education classes. To answer the question of individualizing supports, McDonnell and colleagues compared the instructional contexts of students with low incidence disabilities and their typical peers in general education settings. The students with severe disabilities were 13 times more likely than their peers

without disabilities to receive instruction directed exclusively toward them during whole class activities, and were 23 times more likely to receive 1:1 instruction (McDonnell, Thorson, & McQuivey, 2000). This challenges the prevalent notion that students with disabilities cannot receive individualized supports in general education classrooms.

### Outcomes for Students with Disabilities:

Most research studies examining educational outcomes have found positive effects for inclusion. Baker and colleagues reviewed three meta-analyses that addressed the issue of the most effective setting for the education of students with disabilities. A small-to-moderate positive effect for inclusive placement was found in all three meta-analyses (Baker, Wang, & Walberg, 1994). More recently, Waldron, Cole, and Majd (2001) investigated the effects of inclusive programs for students with high incidence disabilities and their typical peers. This two-year study found that 41.7% of students with learning disabilities made progress in math in general education classes compared to 34% in traditional special education settings, without the presence of nondisabled peers. Gains in reading were comparable in both settings. When comparing progress with their typical peers, 43.3% of students with disabilities made comparable or greater progress in math in inclusive settings versus 35.9% in traditional settings. Similar academic gains were reported in a study examining the use of class-wide peer tutoring on the achievement of students with high incidence disabilities in inclusive classrooms. Significant increases in spelling, social studies and other academic indicators were observed (Pomerantz, Windell, & Smith, 1994). Positive educational outcomes are not in the area of academics alone.

The National Longitudinal Transition Study examined the outcomes of 11,000 students with a range of disabilities and found that more time spent in a general education classroom was positively correlated with:

- Fewer absences from school,
- Fewer referrals for disruptive behavior, and
- Better outcomes after high school in the areas of employment and independent living (Wagner, Newman, Cameto, & Levine, 2006).

Meta-analyses and comparative studies examining the educational outcomes of students with 'low incidence disabilities in inclusive versus segregated classrooms have found either no difference in outcomes or positive effects for inclusion (Hunt & Goetz, 1991). There is a body of empirical evidence that shows students with severe disabilities are able to acquire skills in a range of areas within inclusive classrooms. McGregor and Vogelsberg (1998) report that students demonstrate higher levels of social interaction with typical peers, social competence and communication skills improve (e.g., Hunt, Alwell, Farron-Davis & Goetz, 1996), and academic gains are made (McDonnell, Thorson, McQuivey, & Kiefer-O'Donnell, 1997). In addition, Klierer and Biklen (2001)

### Placement in general education results in:

- Improved IEP quality
- More student engagement
- Increase in instructional time
- Maintenance of individualized supports

## Inclusive Education Research & Practice

found that inclusive learning environments facilitated the acquisition of literacy and adaptive skills as well as enhancing students' social relationships. In this domain of social outcomes, Fisher and Meyer (2002) conducted a two-year longitudinal study to examine social competence for 40 students, with severe disabilities in inclusive and self-contained classrooms. Students in the inclusive settings had significantly higher mean scores on the ASC (Assessment of Social Competence) after a two-year period, and although students in self-contained classrooms made gains, they were not statistically significant. Falvey (2004) notes "no studies conducted since the late 1970's have shown an academic advantage for students with intellectual and other developmental disabilities educated in separate settings."

***"No studies conducted since the late 1970's have shown an academic advantage for students with intellectual and other developmental disabilities educated in separate settings."***  
***-Falvey, 2004***

### Effect on Typical Peers:

Concerns are often raised about the impact that students with disabilities, especially those with challenging behavior, have on the learning of typical students. Hollowood and colleagues investigated the degree to which the presence of students with severe disabilities affected the time allocated for instruction, the actual time used for instruction, and students' engaged time. Results indicated no differences across the three domains when comparing classrooms that included students with severe disabilities and classrooms without students with severe disabilities (Hollowood, Salisbury, Rainforth, & Palombaro, 1995). The finding that engaged time for typical learners is not negatively impacted by the presence of students with severe disabilities was also replicated in other studies (Peltier, 1997; Staub & Peck, 1995).

In the area of academic progress, Waldron, Cole, and Majd (2001) report that more students without disabilities made comparable or greater gains in math and reading when taught in inclusive settings versus traditional classrooms where no students with disabilities are included. This suggests that inclusive classrooms provide greater access to the general education curriculum that benefits all students. Further evidence for the positive effects of inclusion on students without disabilities is reported by McGregor and Vogelsberg (1998).

They found:

- Inclusion does not compromise general education students' outcomes,
- Typical peers benefit from involvement and relationships with students who have disabilities in inclusive settings
- The presence of students with disabilities in general

### What is the impact on typical peers?

- No difference in instructional time and student engagement
- Presence of students with disabilities results in greater number of typical students making reading and math progress compared to non-inclusive general education classes

education classrooms lead to new learning opportunities for typical students.

### Making Inclusion Work

Recognition that inclusion benefits both students with and without disabilities has led to research that seeks to define the necessary contexts, instructional practices, and curricular efforts that result in improved learner outcomes. Some of this research, especially for students with high incidence disabilities, is well documented and its effectiveness clearly established. For students with low incidence disabilities, the body of empirical evidence is smaller but favors inclusive settings with its use of strategies such as varied instructional arrangements and peer supports.

### Peer Mediated Instruction & Intervention:

The use of peer mediated instruction and intervention is often cited in the literature as one of the most effective strategies for inclusive classrooms. In several studies focused on students with mild disabilities, the use of peer mediated strategies results in improved academic outcomes for all students including those considered at risk academically (Sailor, 2002). In a review of the literature, Fisher, Shumaker, and Deshler (1995) reported significant increases in reading, spelling, math, social studies, and other academic indicators for studies

Investigating the use of class wide peer tutoring models (CWPT) where students serve as tutors and tutees in acquiring basic academic skills and factual knowledge. Positive outcomes are accrued when training for tutors is emphasized and in some cases, results in large effect on student outcomes (Stenhoff & Lignugaris/Kraft, 2007). Increases for both elementary and high school aged students were noted.

Specifically for students with moderate to severe disabilities, CWPT has also shown to result in increased levels of engagement and academic responses as well as academic gains. Dawson and colleagues investigated the effects of CWPT for students with intellectual disabilities and their typical peers in general education classrooms. Results showed increases in spelling accuracy as well as greater levels of engagement with typical peers and a decrease in competing behaviors when compared to teacher led instruction (Dawson, Delquadri, Greenwood, Hamilton, Ledford, Mortweet, Reddy, Utley, & Walker, 1999). Similar outcomes were reported by McDonnell and colleagues in a study that focused on the use of CWPT along with a multi-element curriculum and accommodations



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for students with severe disabilities (McDonnell, Mathot-Buckner, Thorson, & Fister, 2001).

More recent studies modeled after CWPT investigated the use of Peer Assisted Learning Strategies (PALS) as a method for improving academic outcomes for students with high incidence disabilities and struggling typical peers. Features of PALS include reciprocal tutoring roles, opportunities to respond and experience success, structured activities, and supplemental practice of skills taught in the core curriculum. Fifteen years of pilot studies, component analyses, and large-scale experiments have shown improvement in the reading achievement of low, average, and high achieving students including those with high incidence disabilities (McMaster, Fuchs, & Fuchs, 2007). In the large-scale field studies involving second through sixth grade classrooms, effect sizes of .22 to .56 were reported when compared to classrooms using a traditional teacher led approach to reading. Furthermore, Fuchs and his colleagues

### Peer Tutoring Results in:

- Academic gains for students with high incidence disabilities and students considered at-risk
- Increased engagement and academic responses for students with low incidence disabilities

report greater social acceptance for students with learning disabilities in classrooms using PALS presumably due to the greater level of reciprocal engagement of those settings (Fuchs, Fuchs, Mathes & Martinez, 2002).

In addition to the structured use of tutoring arrangements, the successful use of peers as supports in inclusive classrooms has also been documented for students with low incidence disabilities. In a study investigating the effects of peer delivered self-monitoring strategies on middle school students with significant disabilities, results showed an increase in percentages of occurrence across eleven identified academic survival skills for all students (Gilberts, Agran, Hughes & Wehmeyer, 2001). The role of peer training is a critical feature in the effective use of peer-mediated instruction. Two studies investigated the issue of contribution of peers to the generalization of social behaviors for elementary students with autism. In both studies, increases in social interaction with typical peers were noted with greater generalization of skills observed from groups with trained peers and less from groups with untrained or stranger peers (Kamps, Royer, Dugan, Kravits, Gonzalez-Lopez, Garcia, Carnazzo, Morrison, & Garrison Kane, 2002).

Peer support interventions are also emerging as an effective alternative to traditional paraprofessional support models for students with low incidence disabilities (Carter, Cushing, Clark & Kennedy, 2005). Several descriptive studies have documented the disengagement of teachers when a one-on-

one paraprofessional service delivery is used (Giangreco, Broer & Edelman 2001). Since the level of engagement and sense of ownership that general educators have with students with disabilities is a critical factor to success in inclusive classrooms, other support strategies must be explored. Cushing and Kennedy (1997) trained typical peers to adapt class activities, provide frequent feedback, and promote communication among other support strategies for three students with severe disabilities in general education classrooms. Results indicated that serving as a peer support resulted in higher levels of engagement for students without disabilities, which is consistent with previous studies employing peer-mediated techniques. This challenges the assumption that having a typical peer support a student with a disability takes away from their participation in the classroom. In looking for optimal configurations, Carter and colleagues studied the effect of using two peers in a support role for students with severe disabilities. Data from the investigation showed an increase in social interaction as well as an increase in the amount of time students with disabilities were engaged in activities aligned with the general curriculum (Carter, Cushing, Clark & Kennedy, 2005). In these peer support arrangements, the paraprofessional's role is broadened and shifts to providing guidance and support to the students serving as a peer support (Carter, Cushing & Kennedy, 2008).

### Instructional & Curriculum Adaptations:

Instructional and curriculum adaptations can be conceptualized in two categories. Routine adaptations include the use of varied grouping arrangements, materials, and goals while specialized adaptations are those made above and beyond routine ones that are in direct response to specific challenges faced by students (Fuchs & Fuchs, 1998). Weymer and colleagues use the term curriculum augmentations to refer to efforts to augment or expand the general education curriculum to provide additional skills or strategies that help students succeed (Wehmeyer, Lance, & Bashinski, 2002). Research on curriculum and instructional adaptations that support students with disabilities in general education classrooms is varied.

For students with learning disabilities, many studies describe

### Peer support interventions that involve one or more peers without disabilities providing academic and social support to a student with disabilities indicate that:

- Typical peers have higher levels of engagement during support role
- Peers with severe disabilities spent more time engaged in activities aligned with the general curriculum

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instructional methods that extend the typical adaptations and help to promote progress in the core content areas for all students (including those without disabilities). These include graphic or advanced organizers, self-regulation strategies, semantic maps, mnemonics, chunking, questioning, and visualizing strategies (Baker, Gersten, & Scanlon, 2002). Swanson and Hoskyn (2001) also confirmed the use of advanced organizers as an effective strategy for positively influencing student performance. The use of content enhancement routines, a type of advanced organizer, was shown to have dramatic results for students with learning disabilities in general education classrooms where the average unit quiz grade increased by ten percentage points (Lenz, Schumaker, Deshler, Boudah, Vance, Kissam, Bulgren, & Roth, 1993).

In addition to these, strategy instruction (teaching students how to learn) has been shown to improve academic achievement across grade levels for both students with and without disabilities (Fisher, Shumaker, & Deshler, 1995). Other techniques that have resulted in improved learner outcomes in inclusive classrooms include the use of materials other than grade level textbooks in the area of social studies (Gersten, Baker, Smith-Johnson, Dimino, & Peterson, 2006) and employing an inquiry-based approach to science with a focus on varied ways of communicating learning (Pulincsar, Magnusson, Collins, & Cutter, 2001).

In contrast to the vast array of evidence for the effects of adaptations for students with learning disabilities, research has recently begun to emerge related to the implementation of curriculum accommodations and modifications for students with significant disabilities (Fisher & Frey, 2001). For example, there are few studies examining the use of strategies such as graphic organizers for students with severe disabilities in inclusive classrooms. In a review of the literature, Lee and colleagues found no studies applying techniques such as chunking and mnemonics while many studies examined self-directed learning strategies such as choice making. However, very few of those studies were conducted in academic content areas (Lee, Amos, Gragoudas, Lee, Shogren, & Theoharis, 2006).

Historically, the focus of research on instructional strategies for

### Effective adaptations for students with mild disabilities:

- Graphic/advanced organizers
- Mnemonics
- Content enhancement routines
- Strategy instruction
- Supplementing grade level textbook with other materials
- Inquiry approach to science

students with severe disabilities has been on "functional life skills" that were taught outside of the general education curriculum (Soukup, Wehmeyer, Bashinski, & Bovaird, 2007). Browder and Cooper-Duffy (2003) report that less than 10% of studies with students with severe disabilities focused on academics, with some research showing success in functional academics and access skills in general education environments. Clearly, the use of curriculum adaptations such as content specific modifications is necessary for the successful inclusion of students with severe disabilities. While there is sample descriptive literature of methods and examples for making adaptations for these students, there is limited empirical evidence to date (Fisher & Frey, 2001).

Some descriptive studies investigated how students with severe

### For students with severe disabilities:

- Less than 10% of studies focused on academics
- Research on the implementation of adaptations is just emerging
- Current evidence shows limited use of accommodations and modifications for students with severe disabilities
- Presence of modifications increases academic responding and decreases competing behavior

disabilities access the core curriculum in general education classrooms. Salisbury and colleagues found that modifying curriculum based on students' IEPs resulted in successful physical, social, and instructional inclusion of students with mild to severe disabilities in kindergarten through fourth grade (Salisbury, Mangino, Petrigala, Rainforth, Syryca, & Palombaro, 1994). More recently, Fisher and Frey (2001) describe the experience of three students (elementary, middle, and high) with significant disabilities and the supports/services necessary for them to access the core curriculum in general education classrooms. The prominent use of individualized, content specific modifications and accommodations were noted for all students. Examples of "these individualized content specific modifications included reading picture books, having a picture communication symbol version of a textbook chapter, and unit vocabulary added to a student's speech output device."

Soukup and colleagues (2007) also examined the use of adaptations for students with severe disabilities in general education classrooms as well as the relationship between access to the general education curriculum and classroom variables. Researchers found that students with severe disabilities worked on grade level standards in 60% of the intervals and worked on standards linked to any grade for 20% of the intervals. Curriculum adaptations (changes to content representation, presentation, or student engagement) were observed in 18% of the intervals with no observations of



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curriculum augmentations (learning-to-learn strategies). In terms of classroom variables, large and small group instructional arrangements were predictive of greater access to the general education curriculum. Soukup and her colleagues conclude that students receiving instruction in general education were significantly more likely to be working on activities linked to the general education standards, although they were doing so without the types of adaptations that research suggests is critical for making progress (Soukup, Wehmeyer, Bashinski, & Bovaird, 2007). Following up on this work, Lee, Wehmeyer, Soukup, and Palmer (2010) studied the impact of curriculum modifications on student and teacher behaviors. Researchers observed 45 students with a range of disabilities and found that the presence of curriculum modifications predicted increased student engagement and decreased competing behaviors that would disrupt learning. In addition, the presence of modifications also resulted in teachers engaging in fewer management behaviors.

### Collaborative Practices:

The inclusion of students with disabilities in general education classrooms necessitates collaboration between administrators, general educators, special educators, parents, and related service providers in order to deliver quality services to all students. In a survey to experts in the field of severe disabilities, Jackson and colleagues reported that collaboration was often cited as a foundation to the implementation of inclusive education (Jackson, Ryndak, & Billingsley, 2000). In many schools, collaboration takes the form of co-teaching where a general and special educator works together to deliver instruction to students with and without disabilities.

In a meta-synthesis of 32 qualitative studies, Scruggs, Mastropieri, and McDuffie (2007) found that teachers generally supported co-teaching but the instructional techniques employed did not necessarily reflect prevailing best practices in the literature. The predominant model of co-teaching was "one teach, one assist" even though this is not a highly recommended

practice in that the special educator often plays a subordinate role. In addition, evidence based practices such as peer mediated and strategy instructions were infrequently observed. Some quantitative studies do exist that document the efficacy of co-teaching. Murawski and Swanson (2001) conducted a meta-analysis of this research and found only six studies worthy of the report. Results from these studies indicated an overall effect size of .40 on academic achievement, social outcomes, attitudes, absences, and referrals. Findings from both the qualitative and quantitative investigations suggests that co-teaching currently falls short of realizing its potential for delivering quality services to students in general education classrooms.

Collaboration among teachers and related service providers is also a critical factor in implementing effective inclusive education. Soto and colleagues found that general educators who have regular opportunities to collaborate and consult with professional peers show evidence of increased instructional skills as well as decreased tendencies to make referrals to special education (Soto, Moiler, Hunt, & Goetz, 2001). Two studies by Hunt and colleagues further document the effectiveness of collaboration as a strategy for improving student outcomes in inclusive settings. In both studies, researchers document the successful teaming of teachers, related service providers, and parents in implementing support plans for students with severe disabilities and typical peers considered academically at-risk. Teams met on a monthly basis to delineate specific instructional adaptations and support strategies for students. Consistent implementation of these plans resulted in increases in academic skills, engagement in class activities, interactions with peers, and student-initiated interactions for all students (Hunt, Doering, Hirose-hatae, Maier, & Goetz, 2001; Hunt, Soto, Maier, & Doering, 2003).

## ROOM TO GROW

### Reframing Inclusion:

As the language of inclusive education has evolved from mainstreaming to integration to inclusion, so too has the practice. Mainstreaming operated on the notion of readiness for general education while integration focused on the enhancement of students' social development. From a legislative, moral, and efficacy standpoint, the general education classroom is now the placement of choice for students with disabilities. These earlier descriptors of inclusion clearly framed it as a special education issue. In other words, it was about the separateness of special education versus belongingness with general education (Sailor, 2002). Researchers and advocates of inclusion have placed a considerable amount of focus on meeting students' needs through

### Research on co-teaching:

- A few studies document moderate effect size for student outcomes
- Qualitative studies show predominance of "one teach, one assist" which is not considered highly recommended
- Infrequent observations of specialized adaptations


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individualized instruction and adaptations of the general education

curriculum for students with disabilities (Spooner, Baker, Harris, Ahlgrim-Dezell, & Browder, 2007). Thus, special educators are typically responsible for retrofitting lessons (e.g., modifying the curriculum, providing intervention, teaching remedial skills) that have been designed by the general education teacher. So while general and special education may have a shared agenda, to a certain extent, the "separateness of special education" still exists.

Reframing the issue of inclusion by using the larger rubric of "universal design for learning" may indeed move the practice so that it "belongs to general education."

The universal design for learning ("UDL") concept assumes high standards for all students and serves as a "blueprint for creating flexible goals, methods, materials, and assessments that accommodate learner differences" (Rose, 2001). The underlying premise of UDL is that teachers should plan instructional supports during the beginning of lesson planning instead of modifying materials as an afterthought (Hitchcock, 2001). In applying this concept, the burden shifts from the individual to the curriculum and curriculum design. Reframing the issue of inclusion in this way takes a sustainable approach to instruction where diversity is considered the norm and should be anticipated in all aspects of instruction and learning.

### Shaping Attitudes:

"Inclusion is a philosophy that urges schools, neighborhoods, and communities to welcome and value everyone, regardless of differences. Central to the philosophy of inclusion is the belief that everyone belongs, diversity is valued, and we can all learn from each other" (Renzaglia, Karvonen, Drasgow & Stoxen, 2003). Holding such an attitude can greatly impact the participation of students with disabilities in inclusive classrooms. According to a study conducted by Robertson, Chamberlain, and Kasari (2003), when teachers have positive perceptions of their relationship with students with disabilities, the students' behavior problems were reported to be lower, and the students were more socially included with peers. Prater (2003) also identified teacher attitudes as one of several elements that are critical in promoting the success of students with disabilities in general education settings.

In addition to the role that teacher attitudes play in the success of inclusive classrooms, it is widely acknowledged that an inclusive school culture begins with the committed leadership of principals. Praisner (2003) examined principals' attitudes toward inclusion including their placement perceptions. Out of 408 principals surveyed, only one in five held positive attitudes toward inclusion. Factors that were associated with positive attitudes included experiences with students with disabilities and exposure to special education concepts. Furthermore, principals who had positive attitudes were more likely to place students in less restrictive settings. Clearly, teacher and administrator attitudes are critical factors that shape the experiences of students with disabilities. These findings hold particular implications for personnel supporting and providing technical assistance to teachers and staff. Efforts aimed at providing teachers and administrators with meaningful contact with people with disabilities as well as information on special education concepts makes a difference in the quality of students' educational programming.

***Reframing inclusion using a larger universal design rubric may move the practice away from the "separateness of special education" to the "belongingness of general education."***

***- Sailor, 2002***

# **A Teachers Guide to *My Friend Isabelle***

## ***Classroom Activities That Foster Acceptance of Differences***

*By Amy Thrasher, M.A., CCC-SLP*

***My Friend Isabelle* is a beautifully written book by Eliza Woloson about a friendship between a girl with Down syndrome and a typical peer. It is often used as a teaching tool to discuss differences among students with young children.**

### ***Supporting Acceptance of Differences:***

Charlie's mother says in *My Friend Isabelle*, "...differences are what make the world so great." Teachers in inclusive classrooms have a wonderful opportunity to make the world a more tolerant place by encouraging children to appreciate our many differences.

This Teacher's Guide to *My Friend Isabelle*, with preschool, kindergarten, and first grade students in mind, provides ideas and activities designed to support you in creating a classroom environment in which differences are discussed openly, all children are valued, and learning takes place through friendships.

When children grow up in an atmosphere of diversity, they are much less likely to develop biases toward others who seem different from them. This does not mean that children in inclusive classrooms do not notice differences. These children develop a sophisticated understanding of self, of others, and of difference. If their natural curiosity and attempts to understand their world are met with respect, encouragement, honesty, and with words that make sense to them, children will learn to view differences with acceptance.

The teacher is the most effective tool in creating a classroom community in which diversity is discussed and welcomed. By demonstrating genuine appreciation for the special interests and strengths of *every* child, the teacher creates an atmosphere in which individuality is viewed positively. Teachers can encourage acceptance of difference everyday in the classroom by:

- Creating opportunities for *all* children to engage in activities, communicate with each other, and notice each other's strengths;
- Drawing on information provided by a child's family. In talking with families, go behind labels like "Down syndrome" to get deeper impressions of their child's personality. Use the words the family chooses to describe their child.
- Focusing attention on what children do—on their unique abilities— not on how they look or what they wear. For example, "You love to paint, Vanessa," rather than "What pretty braids you have today."
- Being specific with comments to children when they cooperate, play with a variety of friends, help each other, or jointly solve problems. For example, "You and Jonah are building a very tall tower together," rather than "Good job, boys."



# A Teachers Guide to *My Friend Isabelle*

## **Addressing questions**

As children begin to understand the concepts of “same” and “different,” they use their developing language skills to test their theories of how things work in the world. Their attempts to understand differences are natural learning opportunities. How you respond to questions and comments about differences will help reinforce acceptance of diversity in your classroom. *Here are some hints:*

Prepare for possible comments and questions. Look at your classroom through the eyes of a child. What might a young child notice as “different”?

Closely observe interactions among children so you will understand the context or reason for a comment or question.

Address comments and questions in the moment. Postponing a discussion can cause uncertainty or discomfort.

Not all “questions” sound like questions. Children often comment on what they see as a way to confirm their impressions and theories. *Treat comments like questions.* For example:

In a classroom of 3-year-olds, Ahmed crawls to get around. After watching him for a few moments, Ella states, “Ahmed is a baby.” You may not be sure what prompted Ella’s comment. *Ask her a sincere, non-judgmental question to find out why she thinks this.* Sometimes, just rephrasing a comment will cause a child to elaborate.

“You think Ahmed is a baby.” Then, by pausing and looking expectantly yet patiently at Ella for her thoughts, you encourage her to say more about her reasoning. From there, you can continue the open discussion. *You may need to supply information or perspective.* Ella’s comment reveals that she is working to understand the concept of age. She naturally associates behavior

(Ahmed’s crawling) with age (babies crawl).

If Ahmed crawls to get around the classroom because of mobility issues, while his classmates walk and run, Ella might test her theory that “3-year-olds walk, babies crawl; therefore Ahmed is a baby.” One way to respond would be to say, “You and Ahmed are both 3 years old. Ahmed likes to play with other 3-year-olds, but it is hard for him to move sometimes. He crawls to meet his friends.”

## **Reading My Friend Isabelle to Your Class**

Reading *My Friend Isabelle* to a group of children naturally provokes discussions about differences. Read each page; show the illustration, and then pause. Your children will notice the exquisite drawings that supplement the text’s meaning. The following activities support children’s questions and comments and suggest ways to explore the concepts in the story. Responses to the story from children in my own classroom and strategies that I have used are sprinkled throughout.

*Please visit*

[http://www.woodbinehouse.com/my\\_friend\\_isabelle\\_teachers\\_guide.pdf](http://www.woodbinehouse.com/my_friend_isabelle_teachers_guide.pdf) to download the entire guide to reading *My Friend Isabelle* to your class!

When you read this page, many children will naturally hold out their feet for inspection. Try imitating this action, providing a model for the children who do not immediately join in. Draw children into the conversation, who are unlikely to participate verbally in a large group, by pointing out shoe similarities and differences. “Oh, look! Deneeka has flowers on her shoes like you, Tara. Deneeka’s are purple and yours are white.” By connecting two children in the same remark, children begin to see each other in relation to one another. Try incorporating movement, since some children may not have enough language to participate verbally.

When reading this page to my class, I commented, “Thomas has new light-up shoes!” and stomped my foot. Thomas, who doesn’t yet have words to talk about his shoes, imitated me and stomped his foot. I made sure to stress that even though Thomas’ feet are smaller than Tara’s, Thomas and Tara are the same age, like Isabelle and Charlie in the story.

## **SECTION 7**

# **References, Readings & On-line Resources**



# Reading Resources

- Down Syndrome Consensus Group. *Understanding a Down Syndrome Diagnosis* [www.lettercase.org](http://www.lettercase.org)
- Egan, Amy. *Is It a Big Problem or a Little Problem?: When to Worry, When Not to Worry, and What to Do*
- Bruni, Maryanne. *Fine Motor Skills in Children with Down Syndrome*. Woodbine House, 1998
- Winders, Patricia. *Gross Motor Skills in Children with Down Syndrome*, Woodbine House, 1997
- Kumin, Libby. *Early Communication Skills for Children with Down Syndrome*, Woodbine House, 2003
- Medlen, Joan. *The Down Syndrome Nutrition Handbook*, Woodbine House, 2002
- Ayres, Jean. *Sensory Integration and the Child: 25th Anniversary Edition*
- Hammeken, Peggy. *Inclusion: 450 Strategies for Success*, Peytral Publications, 2000
- Tien, Barbara. *Effective Teaching Strategies for Successful Inclusion - A Focus on Down Syndrome*, The PREP Program, 1999
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- Sandall, Susan. *Young Exceptional Children Monograph #1. Practical Ideas for Addressing Challenging Behaviors*, Sopris West, 1999
- Sandall, Susan & Schwartz, Ilene. *Building Blocks for Teaching Preschoolers with Special Needs*, Brookes, 2002
- Oelwein, Patricia. *Teaching Reading to Children with Down Syndrome*, Woodbine House, 1995
- Mary Lashno, O.T.R. *Sensory Integration: Observations of Children with Down Syndrome and Autistic Spectrum Disorders* [http://www.kennedykrieger.org/kki\\_misc.jsp?pid=2146](http://www.kennedykrieger.org/kki_misc.jsp?pid=2146)

## References & Useful Links

### ***What is Down syndrome- General Information***

<http://www.dsagc.com/documents/TeacherInfoPacket-2009-02-08.pdf>  
[www.nichcy.org](http://www.nichcy.org)  
[www.ndss.org](http://www.ndss.org)  
[www.ndsccenter.org](http://www.ndsccenter.org)  
<http://www.dsact.com/> -video  
<http://www.downsyndromekidsinfo.com/Downsyndromekidsinfosensoryintegration.html>  
[http://www.kennedykrieger.org/kki\\_misc.jsp?pid=2146](http://www.kennedykrieger.org/kki_misc.jsp?pid=2146)

### ***Strategies for Teachers, Special Educators and Para-Educators***

<http://www.projectparticipate.org/handouts/TipsGeneralEd.pdf>  
<http://www.projectparticipate.org/handouts/TipsSpeEdT.pdf>  
<http://www.projectparticipate.org/handouts/TipsParas.pdf>

### ***Differentiating Instruction***

<http://www.paulakluth.com/readings/differentiating-instruction/differentiating-instruction/>

### ***Challenging Behavior in the Classroom***

[http://www.challengingbehavior.org/do/resources/teaching\\_tools/toc/folder1/1b\\_communication.pdf](http://www.challengingbehavior.org/do/resources/teaching_tools/toc/folder1/1b_communication.pdf)  
[http://www.challengingbehavior.org/do/resources/teaching\\_tools/toc/folder1/1a\\_toolkit.pdf](http://www.challengingbehavior.org/do/resources/teaching_tools/toc/folder1/1a_toolkit.pdf)  
<http://www.ndsccenter.org/resources/documents/stubborn.php>  
<http://elizabethvillaverde.com/resources/HowMakeVisSched.pdf>  
<http://www.disabilityisnatural.com/images/PDF/danceleadfol.pdf>

### ***Positive Behavior Intervention and Supports***

<http://www.pbis.org/seclusion/restraint/default.aspx>  
<http://www.pbis.org/links/default.aspx>  
<http://www.pbis.org/research/default.aspx>  
<http://cte.jhu.edu/courses/pbis/>  
[http://pbis.org/english/Functional\\_Assessment\\_of\\_Behavior.htm](http://pbis.org/english/Functional_Assessment_of_Behavior.htm)  
<http://www.air.org/cecp/fba/default.htm>

### ***UDL***

[www.udl4allstudents.com](http://www.udl4allstudents.com)  
[www.udl4maryland.com](http://www.udl4maryland.com)  
<http://www.udlcenter.org/>  
<http://www.cast.org/udl/index.html>  
<http://www.udlcenter.org/research>  
<http://www.udlcenter.org/aboutudl/udlguidelines/research>  
<http://www.udlcenter.org/sites/udlcenter.org/files/PACER%20Parent%27s%20Guide.pdf>  
<http://www.ncld.org/images/stories/Publications/AdvocacyBriefs/ParentGuide-UDL/ParentsGuidetoUDL.pdf>  
<http://www.udlcenter.org/implementation/planningtemplates/school>  
<http://www.udlcenter.org/aboutudl/udlguidelines>

## References & Useful Links

<http://www.udlcenter.org/implementation/examples>  
<http://www.advocacyinstitute.org/UDL/faqs.shtml>  
<http://www.udlcenter.org/implementation/planningtemplates/districtresources>  
[http://www.nea.org/assets/docs/PB\\_UDL.pdf](http://www.nea.org/assets/docs/PB_UDL.pdf)  
[http://www.advocacyinstitute.org/UDL/UDL\\_TASH\\_Connections.pdf](http://www.advocacyinstitute.org/UDL/UDL_TASH_Connections.pdf)

### **Math**

<http://www.touchmath.com/index.cfm?fuseaction=about.Why>  
<http://www.touchmath.com/index.cfm?fuseaction=about.how#Points>  
<http://www.numicon.com/Index.html>  
[http://www.numicon.com/Assets/Downloadablefile/Cambridge\\_Research\\_Summary-15499.pdf](http://www.numicon.com/Assets/Downloadablefile/Cambridge_Research_Summary-15499.pdf)

### **Reading**

<http://www.dseinternational.org/en/gb/research/achievements/>  
<http://www.seeandlearn.org/en/gb/language-reading/introduction/>  
<http://www.academictherapy.com> High Noon Books. Adapted chapter novels.

### **Writing**

<http://www.hwtears.com> - Olsen, Jan. *Handwriting Without Tears Teacher's Guide*.  
<http://www.hwtears.com/educators/teachersguides>

### **Inclusive Practices & Social Development**

<http://www.riverbendds.org/index.htm?page=incteach.html>  
<http://www.paulakluth.com/articles/exclusion.html>  
[http://www.woodbinehouse.com/my\\_friend\\_isabelle\\_teachers\\_guide.pdf](http://www.woodbinehouse.com/my_friend_isabelle_teachers_guide.pdf)  
<http://www.projectparticipate.org/handouts/Eval%20Incl%20Practices.pdf>  
<http://www.dsagc.com/documents/TeacherInfoPacket-2009-02-08.pdf>

## Down Syndrome Network of Montgomery County

P.O. Box 10416, Rockville, MD 20849 • 301-979-1112 • [www.dsnmc.org](http://www.dsnmc.org)

The vision of the Down Syndrome Network of Montgomery County is to be a comprehensive resource on Down syndrome in the Washington, DC metro area. We envision a community where all people with Down syndrome can achieve their full potential, and where individuals with Down syndrome and their families are welcomed with fairness, enthusiasm and encouragement in the community. It is our mission to empower and support individuals with Down syndrome, their families and the community through education, information, public awareness and advocacy.

### WE VALUE:

- The rights of people with Down syndrome to participate in decisions about their lives including choices about where they live, learn, work and play;
- The role of families in unlocking the development and potential of people with Down syndrome;
- The importance of a well-informed and accepting community;
- The diversity in our community, which will be reflected in our membership and board of directors;
- An engaged membership and competent leadership;
- The contributions of our volunteers;
- Grassroots education regarding policy issues;
- Research that is conducted within accepted human rights guidelines and focused on improving quality of life;
- The role professionals play in supporting the development and potential of people with Down syndrome; and
- Creating opportunities for people with Down syndrome to be contributing members of the community.

This Education Resource Guide was developed by DSNMC to provide educators and therapists with a multitude of tools and resources to maximize the experience of students with Down syndrome and their classmates. Special thanks go to Cami Fawzy, who spearheaded this project from its inception to its completion and worked diligently to deliver this meaningful tool. Thanks also to Heather Sachs, DSNMC Advocacy Committee Chair, and other parent volunteers on the DSNMC Education Committee who kindly contributed their ideas, resources and guidance.

The goal of the DSNMC Education Committee is to provide families, educators and communities including children and young adults with Down syndrome access to information, education resources and networking opportunities to better enable them to reach their potential. If you would like to join our committee and/or have any questions, suggestions, please contact [info@dsnmc.org](mailto:info@dsnmc.org).

We are thankful for all the material shared by other non-profit organizations within the Down Syndrome Affiliates in Action group <http://www.dsaia.org/>