



Down Syndrome 101 for Educators





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Executive Director





Down Syndrome 101

- Most commonly occurring genetic condition resulting in 1:691 births
- Down Syndrome is prevalent in all races, socioeconomic classes and shows no gender bias
- There are over 250,000 individuals are living with Down syndrome in the United States
- Currently no known cause or cure for Down syndrome-it's a result of an error in cell division when a baby is forming in the womb

Down Syndrome 101

- 80 percent of babies with Down syndrome are born to women under the age of 35
- Average life span if born with Down syndrome today: 55-60 years of age
- Varied mental abilities, physical development, behavior, and accomplishments
- Prenatal testing recommended for EVERY pregnancy

Medical Issues



- Apraxia- neurological disorder affecting the ability to control fine and gross motor movement and gestures
- Apraxia can range from mild to severe.
- People with Apraxia often cannot perform controlled, purposeful movement, despite having the physical strength and intellectual thought and desire to do so.
 - Zipping up jacket, opening back pack, carrying lunch tray

<http://www.down-syndrome.org/reports/301/>



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Down Syndrome Healthcare Guidelines



- Created by medical professionals who are passionate about people with Down syndrome
- Identifies various screening tests and standardized tests which physicians should utilize when working with patients who have Down syndrome
- Categorized by age range
- Currently being reviewed and updated
- With appropriate health care and preventive medicine, people with Down syndrome have doubled their lifespan in the past few decades!



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What Can You Do?




- Work to identify potential medical issues affecting academic success
- Allow for recovery time and regrouping after illness
- If you see DISTINCT changes in behavior rule out medical issues first
- Teach student how to report medical issues
- Follow any treatment protocols as outlined by physician
- Work with student to wear glasses, hearing aides, take medications and follow dietary or activity restrictions




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Communication Issues

- Receptive language vs. Expressive language
- Hearing
- Attention span
- Short term memory
- Speech articulation
- Processing time





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Communication Issues

- Reliving a moment
- Recalling information
- Echolalia
- Behavior is a form of communication
- Generalization






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Communication Issues

- Dyspraxia of speech- a partial loss of the ability to perform skilled, coordinated verbalization
- It is caused by a neurological difference that has not yet been pinpointed.
- Treatment via intensive speech therapy concentrating on oral-motor skills
 - Bubble blowing, horn blowing, sucking through straws
 - Books by Libby Kumin www.woodbinehouse.net
 - Talk Tools Products <http://www.talktools.net/>

<http://www.downsyndromecentre.ie/blog/dyspraxia-and-down-syndrome>



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Communication Strategies

- Demands and Interruptions
 - Necessary vs. Unnecessary Demands
 - Talking too fast and too much information
 - 10 seconds can change a life
 - Visual interruptions
- Fallouts of Needless Demands and Interruptions
 - Shut Down-Down syndrome drop
 - Aggressive or Uncooperative Behavior



Communication Strategies

- Less is more!
 - Ensure you are face to face and have good eye contact when giving instructions
 - Ask the student to repeat instructions back to you
 - Use simple and familiar vocabulary and short, concise sentences
 - Reinforce directions with facial expressions, gestures and signs
- Emphasize key words and reinforce with visual aids as needed
 - Authoritative voice with expectation of compliance
 - Avoid closed questions and encourage the student to speak in more than one word utterances
 - Develop language through drama and role-play
 - Use a home-school log to help relay information



Memory Issues

Because of their poor working memory, students with Down syndrome have greater difficulty than their peers with:

- Processing and retaining spoken words
- Understanding and responding to spoken language
- Following verbal instructions
- Learning abstract or unfamiliar vocabulary
- Remembering rules or routines
- Developing organizational skills
- Remembering sequences or lists



Working Memory Presentation:

<http://www.upatdowncountry.com/educational>



Social Issues

- The Dreaded "R" Word
- At-risk population for bullying/abuse
- Research indicates 70-80% of people with developmental disabilities will be abused either verbally, physically or sexually in their lifetime
- Issues with self-reporting
- People First Language
- Extra curricular activities



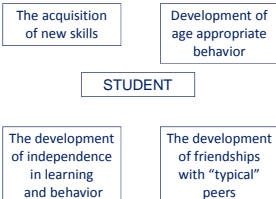
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Why Inclusive Education?

Inclusive education benefits not only the student with Down syndrome, but also leads to greater understanding and less prejudice in the community at large.

Students in inclusive schools learn to become more tolerant and patient and to support each other, rather than competing or being afraid of the unknown. They also learn to value diversity and to appreciate that everyone has special gifts and talents.

Aims of Inclusion



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Successful Inclusion Requires

- A belief that all children can learn
- A positive attitude throughout the whole school
- A flexible approach to the use of support staff
- Ownership of the student's learning by the classroom teacher
- Good communication between home and school
- Disability awareness education for students and educators
- Teaching independence not learned helplessness



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What is Inclusion?








http://www.youtube.com/watch?v=n_qgW9FWEgQ


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Avoiding Learned Helplessness




- Students with Down syndrome are often presumed to need help in areas where they can actually be quite self sufficient.
- It is best to presume competence and provide supports only when the student requests assistance or proves it is needed.
- Are the supports you have in place transferrable to other settings?
 - Community outings
 - Employment situations
 - Post secondary education
- Are you training your student to be a productive member of society?
- Are you setting the student up to fail later in life by rescuing him/her now?

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Avoiding Learned Helplessness




Promotes Learned Helplessness

- Protecting student from taking risks
- Rescuing student from anticipated outcomes
- Overlooking errors
- Constant prompts
- Speaking for your student
- Giving inflated grades
- Permitting bad behavior
- Making excuses
- Interceding before they ask for help
- Inconsistency in discipline or expectations

Promotes Independence

- Setting clear limits on what is safe
- Discussing issues and creating solutions
- Giving clear directions/expect follow through
- Student encouraged to speak for self
- Teaching at a challenging level using learning strengths
- Using rubric scoring honestly
- Coaching student on errors
- Consistency in discipline/expectations
- Holding student accountable for actions
- Allowing student to fail in safe environment
- Teaching student to ask for help as needed



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How Down Syndrome Affects Learning



Preferred Teaching Methods

- Consistent vocabulary
- Allow for processing time
- Hands on activities
- Structured, sequenced activities
- Routines followed
- 15-20 repetitions to acquire skills
- Visual learning a strength
- The fewer the cues, the better!



Preferred Teaching Methods

- Avoid learned helplessness
- Allow student to try and fail
- 360 degree approach
- Engage learner at his level
- Reward programs that make sense
- Think like an employer
- Peer mentoring



The Power of Peer Presentations

- Helps other students understand what it is like to live with Down syndrome
- Provides students with strategies for supporting their friend with Down syndrome
- Opens the door for an important conversation
- Teaches diversity and tolerance
- Facilitates friendships



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The Power of Peer Presentations

- 15-20 minute classroom or grade level presentation tailored around a specific student to address any issues related to their disability that others in the class may need help to understand.
- Ask parents if child should be included or out of the room during the presentation.
- Should be done across the grade level.
- The following should be present for the presentation, if possible:
 - All educators who are on the IEP team
 - Administrative staff (if pertinent)
 - School Counselor
 - School Nurse
 - Parents of student (if not presenting)



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The Power of Peer Presentations

- Icebreaker(s)
 - Age-Appropriate books
 - The "Superstar List"
 - "Segregation Simulation"
- Watch a video or read an age appropriate book
- Down syndrome 101
 - What is Down syndrome?
 - Hypotonia
 - Speech
 - Hearing
- Opening the Doors to Friendships
 - Peer modeling
 - How to be a friend
- Q & A
- Send child home with give-aways (personalized book marks, pencils, candy)



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The Power of Peer Presentations

- **GOAL #1**
To increase the students' personal awareness and knowledge about similarities and differences between people, and to raise their personal awareness about disabilities.
- **GOAL #2**
To share language and give them knowledge about Down Syndrome.
- **GOAL # 3**
To ask for the students' help in supporting and teaching their classmate with Down Syndrome and any other people who may have differences or special needs.



The Power of Peer Presentations

- Letter to classroom parents
- Myths/Truths About Down Syndrome
- Personalized Bookmarks
- Other fun items like pencils, candy, or school supplies if they are available



Peer Presentation Materials

Myths & Truths About Down Syndrome

Down Syndrome is a genetic condition that affects about 1 in 700 babies born in the United States. It is caused by an extra copy of chromosome 21. This extra copy of chromosome 21 causes physical and intellectual disabilities. The severity of these disabilities varies from person to person. Some people with Down Syndrome have mild disabilities, while others have more severe disabilities. People with Down Syndrome are just like everyone else. They have their own personalities, talents, and interests. They can lead happy and successful lives. People with Down Syndrome can be friends, neighbors, and coworkers. They can be successful in school, work, and in life. People with Down Syndrome can be a source of joy and inspiration to everyone they meet.

Questions About Down Syndrome (Q&A)

Why does Hannah have Down Syndrome?
Hannah was born with 21 chromosomes, not 46. The extra copy of chromosome 21 causes Down Syndrome. People with Down Syndrome are just like everyone else.

Can I teach Hannah anything?
Yes, I can teach Hannah anything. I can teach her to read, write, and do math. I can teach her to play sports and to be a good friend. I can teach her to be a successful person in school, work, and in life.

Is there a cure for Down Syndrome?
No, there is no cure for Down Syndrome. However, there are many ways to help people with Down Syndrome live better lives. There are many support groups and resources available for people with Down Syndrome and their families.

Why does Hannah seem so tired all the time?
People with Down Syndrome often have a condition called hypothyroidism. This condition can make people feel tired and sluggish. However, this condition can be treated with medication. Hannah's doctor has prescribed her medication, and she is feeling much better now.

What should I do if I can't understand what Hannah is saying?
If I can't understand what Hannah is saying, I should ask her to repeat what she said. I should also try to look at her face and body language to see if I can understand what she is saying. I should be patient and give her time to speak.

Why does Hannah have the chromosome with autism?
Hannah has Down Syndrome and autism. These are two different conditions. Down Syndrome is a genetic condition, while autism is a developmental disability. However, these two conditions can occur together. Hannah's doctor has diagnosed her with both conditions. Hannah is a unique person, and she is just like everyone else.

Why does Hannah sometimes react so badly when I touch her?
Hannah has a condition called sensory processing disorder. This condition can make people feel uncomfortable or even angry when they are touched. However, this condition can be treated with therapy. Hannah's doctor has prescribed her therapy, and she is feeling much better now.



Just Like You Film




Down Syndrome




www.justlikeyou-downsyndrome.org



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The Role of the Support Professionals


- Encourage cooperative learning and involvement of peers as good role models
- Act as a bridge between student and the curriculum
- Provide feedback to the classroom teacher on the student's response to the curriculum
- Encourage development of age appropriate behavior
- Set high expectations and refuse to accept inappropriate behavior



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Behavior is a Form of Communication

- Annoyed when other people don't take the time to understand what they are trying to say.
- Some students with Down syndrome may appear to misbehave when they are, in reality, just confused or uncertain about what they are supposed to do.
- Students may have failed to understand instructions given to the whole class.
- Student may have forgotten what they have been told (short term memory issues).
- Student may find it hard to learn new rules and routines and still do things in the old way.



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Behavior is a Form of Communication

- Rule out any medical reasons for behavior
- Compromised concentration or memory skills compared to peers.
- Immature play and social skills.
- Immature behavior may have been ignored or reinforced in the past.
- Is your student treated like his/her peers?
- The first response to a request may be NO!



Behavior is a Form of Communication

- Examine what part you may play in the behavior
- Environmental changes
- Wants to be center of attention and dislikes being ignored.
- Resents having an adult by their side all the time
- Resents adult helping other students
- Used to getting special treatment and object if it is withdrawn.
- Attention seeking behavior has worked in the past so why not use it again?
- Misbehave because they are angry, frustrated or hurt.



What is Your Student Telling You?

- Subjected to a high level of structure and supervision. As a result they may feel the need to exert some control over their lives.
- Refusal to cooperate with teacher or assistant to gain control.
- Give opportunities to choose activities.
- Students may feel under pressure and need a break.
- Students may resent being regularly withdrawn from class and separated from their friends.
- The student's immaturity may lead to behaviors more appropriate to a younger child.



What is Your Student Telling You?

- Wants to do the same work as everyone else but an adult insists they do something different.
- Tries to do the same as others, but find they can't cope without help.
- Presumes the work they are being given is too difficult or sees it as uninteresting.
- Are you over supporting?
- Confused by different adults giving conflicting messages.
- Self stimulating and sensory issues



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Strategies for Disruptive Behaviors

- Give choices in activities.
- Give the child the opportunity to resolve a conflict with another child before intervening.
- When intervening - problem solve with the child, do not just stop the behavior.
- Give an alternate suggestion on what to do with the impulse. Redirect to another more appropriate activity.
- When possible allow the child to experience the natural consequence of his/her behavior.
- Repeat rules and limits frequently; keep to a few basic rules.
- Reinforce behavior you want to continue.
- Be consistent; the child probably has had a lot of practice in testing the limits.



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Strategies for Disruptive Behaviors

- Warn children before transitions are made.
- Arrange the learning environment for positive interaction
- Intervene before "robust" play becomes rough play.
- Encourage and assist children to verbally come up with their own solutions.
- Schedule the student's day for success.
- Try not to let the student become overly tired.
- Some students respond to role-playing, using puppets or social stories to work out solutions to conflict situations.



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Strategies for Disruptive Behaviors

- If/Then scenarios to give clarity to tasks required.
- Visual task boards/ schedules.
- Timers to help with awareness of time (this non-preferred activity WILL end at some point!)
- Break tasks into smaller manageable steps.
- Consistency is the key!
- Decrease opportunities for distractions.
- Verbal redirection first. Physical redirection only when necessary.



Curriculum Adaptations

- Modifications to the curriculum call for creative thinking and imagination on the part of the IEP team.
- Using common sense, being flexible and locating additional resources will be an effective approach.
- Differentiating materials will provide more access for ALL students in a classroom
- As a para it is not your responsibility to adapt the curriculum. HOWEVER, you can make suggestions to the general and special education teachers based on your interactions with the student





Curriculum Adaptations

- Rely heavily on visual aides rather than auditory instructions.
- Modify worksheets
 - Fewer items and/or more visuals
 - More border around edge of page
 - Highlighted text that is important
 - Large print
 - Meaningful context to learner
- Use of manipulatives
- Multiple choice tests vs. spontaneous answers
- Writing utensils
- Books on tape



Curriculum Adaptations



- Use meaningful material within or close to the pupil's experience.
- Introduce new concepts in a familiar context.
- Show samples of completed work.
- Provide plenty of visual cues- pictures, diagrams and print.
- Ensure illustrations tie in closely with text and task.
- Give plenty of opportunities for success.
- Use technology! Ipads, computers, cell phones, Nintendo DS

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Curriculum Adaptations

- Follow student's lead
- Supplement the worksheet with a taped version of the task instructions, which the pupil can play for reinforcement
- Try several different versions of worksheet to discover what works best for the student
- Differentiate clearly between text and illustrations
- Wide border around the edge of the page
- Provide opportunities for collateral success
- Show sample of the finished product


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Adaptations That Work

Size
Adapt the number of items that the learner is expected to learn or complete.
For example: Reduce the number of social studies terms a learner must learn at any one time. Worksheet is two sided with big print and five questions on each side instead of one sided with all ten items in small print.

Time
Adapt the time allotted and allowed for learning, task completion, or testing.
For example: Individualize a timeline for completing a task; pace learning differently (increase or decrease) for some learners.

Level of Support
Increase the amount of personal assistance with a specific learner.
For example: Assign peer buddies, teaching assistants, peer tutors, or cross-age tutors.



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Adaptations That Work



Input

Adapt the way instruction is delivered to the learner.

For example: Use different visual aids; plan more concrete examples; provide hands-on activities; place students in cooperative groups.

Difficulty

Adapt the skill level, problem type, or the rules on how the learner may approach the work.

For example: Allow the use of a calculator to figure math problems; simplify task directions; change rules to accommodate learner needs.

Output

Adapt how the learner can respond to instruction.

For example: Instead of answering questions in writing, allow a verbal response; use a communication book for some students; allow students to show knowledge with hands-on material. Multiple choice spelling tests. Shaving cream spelling.



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Adaptations That Work



Participation

Adapt the extent to which a learner is actively involved in the task.

For example: In geography, have a student hold the globe, while others point out locations.

Alternate Goals

Adapt the goals or outcome expectations while using the same materials.

For example: In social studies, expect one student to be able to locate just the states while others learn to locate capitals as well.

Substitute Curriculum

Provide different instruction and materials to meet a learner's individual goals.

For example: During a language test one student is learning computer skills in the computer lab.



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We've Come A LONG Way



Over the last thirty years, research has increased our knowledge about the capabilities of people with Down syndrome. At the same time, significant advances in health care, early intervention and family support have vastly improved the quality of life for people with Down syndrome and their families.



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What Does the Future Hold for Students With Down Syndrome?

- Post secondary opportunities
- Real jobs for real people
- Relationships and marriages
- Actively participating in their communities
- People with Down syndrome have unlimited potential when given opportunities and support!



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What Does the Future Hold for Students With Down Syndrome?

- Living independently or in semi-supported environments
- Amazing medical advances
- A potential cure for cancer found in people with Down syndrome?
- Research which will result in therapies or medications which could enhance cognition



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Where Can You Find Help?

- Case Manager for the student
- Student's parents
- Other para professionals
- IEP Team
- Peers at school
- Internet Resources
- Library (books authored prior to 2000 are likely outdated)
- Down Syndrome Guild of Greater KC



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THANK YOU FOR ALL YOU DO!



Resource Materials

- Down's Syndrome Association Education Support Packet <http://downs-syndrome.org.uk/>
- Down Syndrome Guild of Greater Kansas City http://www.kcdsg.org/for_educators.php?show_child=80
- Down's Ed International <http://www.downsed.org/>
- Prep Program <http://www.prepprog.org/>
- Down Syndrome Association of Central Texas Educator Packet <http://www.dsact.com/images/docs/Educatormanual2008.pdf>



Questions???

To learn more about supporting students with Down syndrome:

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