



Getting Specific: Treatment Strategies for Improving Fluency and Communication in Children Who Stutter

J. Scott Yaruss, Ph.D., CCC-SLP, ASHA Fellow
Board-Recognized Specialist and Mentor in Fluency Disorders



Associate Professor, Communication Science and Disorders, University of Pittsburgh
Associate Director, Audiology and Speech-Language Pathology, Children's Hospital of Pittsburgh
4033 Forbes Tower, Pittsburgh, PA 15260 Phone: (412) 383-6538 Fax: (412) 383-6791
Email: jsyaruss@pitt.edu - Stuttering Center Website: <http://www.StutteringCenter.org>



- I. Purpose: To focus on 3 key aspects of comprehensive treatment for school-age children who stutter
 - A. Helping children change the **timing** and **tension** of their speech production so they are able to speak more fluently and reduce the degree to which moments of stuttering interrupt their speech
 - B. Helping children reduce their sensitivity to stuttering and improve their overall communication abilities.
 - C. Helping children address difficult issues such as bullying and other negative reactions to their speech

II. Most Important Fact #1: "Stuttering is more than just stuttering"

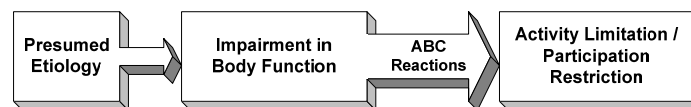


- A. Int'l Classification of Functioning, Disability & Health (World Health Organization, ICF 2001).
 1. A classification systems for understanding the broad nature of the stuttering disorder
 - a) **Body Function & Structure:** major physiological/psychological functions of the body
 - b) **Functioning and Disability:** major areas of people's daily lives
 2. *Impairments* in Body Function and Structure can lead to limitations in a person's ability to perform activities or restrictions in the person's ability to participate in life



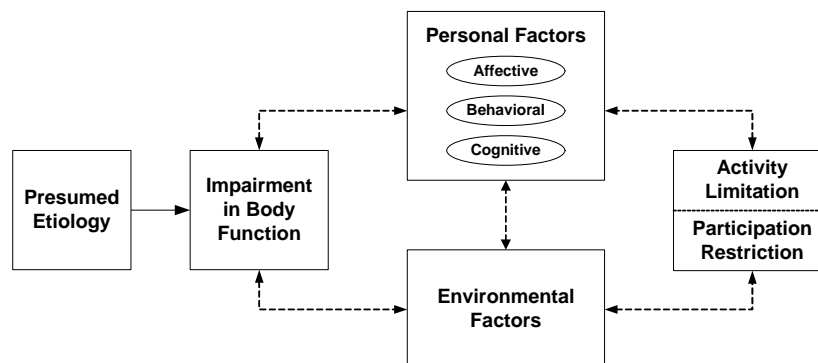
B. The Role of Reactions

1. In stuttering, the link between **impairment** and the resulting negative consequences is largely mediated by the speaker's **reactions** to stuttering
 - a) **Affective:** Feelings, attitudes, emotions
 - b) **Behavioral:** Actions (Avoidance, tension, struggle)
 - c) **Cognitive:** Thought-processes, self-evaluation



2. Finally, the reactions of those in the speaker's **environment** also play an important role

C. Considering the Entire Stuttering Disorder



Model for representing stuttering based on the ICF (adapted from Yaruss, 1998; Yaruss & Quesal, 2004)

III. Why so much stuff?

A. The ASHA Scope of Practice

“The scope of practice in speech-language pathology encompasses all components and factors identified in the WHO framework. That is, speech-language pathologists work to improve quality of life by reducing impairments in body functions and structures, activity limitations, participation restrictions, and environmental barriers...” -- ASHA (2007) Scope of Practice for Speech-Language Pathologists

B. If stuttering is more than just stuttering, then stuttering treatment is more than just treatment for stuttering... *We must treat the disorder, not just the behavior!*

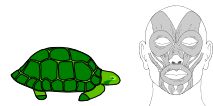


1. **Impairment:** Change speech production to improve fluency
2. **Child's Reactions:** Improve speech attitudes/acceptance; Reduce avoidance, tension, struggle
3. **Activity Limitation / Participation Restriction):** Focus on communication, not just fluency
4. **Environmental Reactions:** Educate others about stuttering; Help child learn to handle bullying

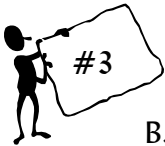
Techniques for Treating the Entire Disorder: Improving Communication

I. Addressing Impairment I: Improving Fluency / Reducing Stuttering

A. Most techniques for improving fluency focus on changing timing or tension



1. Changing Timing: Reducing Speaking Rate, Pausing and Phrasing, Reducing Pace, Easy Starts
2. Changing Tension: Light Contact, Easy Starts / Easing In, Pull-out / Easing Out, Cancellation
3. **Remember, though...Techniques only work when you use them**



B. Changing Timing: **Speaking Rate**

1. One of the most common techniques for improving fluency is reducing speaking rate
2. For preschoolers, “turtle speech” helps children and parents slow their rate, facilitates fluency
3. I prefer a more “natural” sounding slow speech, especially for school-age children
4. Guidelines for Reducing Speaking Rate
 - a) Practice using slow rate before you try it — get a feel for too slow and not slow enough
 - b) Use natural intonation and rhythm
 - c) Do not use “choppy” or “robot” speech or s t r e t c h out all the words
 - d) Slower (but still natural) speaking rates can be incorporated into all activities as a positive model for the child, *but don't go too slow!*



C. Changing Timing: **Pausing**

1. Increase *pause time* -- the length of time between words and phrases
2. Pauses should occur at natural locations, e.g., between sentences and phrases
3. Pauses should not be so long that the child feels uncomfortable with the silence (~1 sec)
4. It may take some **practice** for the child (and you) to develop comfort with silence



D. Changing Tension: **Light Contact**

1. Physical tension builds during both fluent and disfluent speech
 - a) The more tension, the more stuttering
2. Child can try to *reduce physical tension* as their articulators are touching one another
 - a) Similar to the gentle laryngeal onset used in therapy for voice disorders, but for all muscles
 - b) Takes a lot of practice, and may cause the child's speech to sound (and feel) less natural



Notice how many of these techniques require *practice* (all of them)

Nothing Comes For Free: MODIFYING SPEECH IS HARD!

E. Changing Timing AND Tension: *Easy Starts*

1. Reduce pace *and* physical tension at the beginning of phrases
 - a) Use phrasing and pausing to give multiple opportunities to reduce the physical tension
 - b) Focus on *naturalness* throughout the phrase... only the beginning of the phrase is modified
 - c) Requires lots of practice (for you and the child)
2. Can also be used when the child knows he is about to stutter (“easing in” / preparatory set)
3. Practice Exercise: *Easy Starts*
 - a) Consider the following passage (though I rarely use set reading passages!)

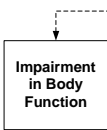
Once upon a time there was a young boy whose name was Joe. Joe liked to play with his friends in the sandbox. One day Joe lost his shoes in the sandbox. He looked and he looked and he looked but he could not find them Later that day Joe found out that one of his friends had hidden his shoes as a joke Joe was relieved to find his shoes and he had a good laugh about the practical joke Joe was a good sport.

- b) Notice that the passage can easily be divided into phrases.

Once upon a time // there was a young boy // whose name was Joe // Joe liked to play // with his friends // in the sandbox. One day // Joe lost his shoes // in the sandbox. He looked // and he looked // and he looked // but he could not find them // Later that day // Joe found out // that one of his friends // had hidden his shoes // as a joke // Joe was relieved // to find his shoes // and he had a good laugh // about the practical joke // Joe was a good sport.

- c) Read the passage again, using easier beginnings at the start of each phrase
 - (1) Be sure to change both the timing and tension of your speech at the beginning of phrases
 - (2) Make sure the rest of the phrase sounds natural
 - (3) What else changed about your speech when you used the easier beginnings?

II. Addressing Impairment II: Techniques for Modifying Stuttering



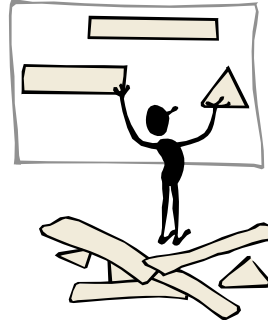
- A. With fluency techniques, children do become more fluent (particularly in the therapy room);
 1. However, no fluency technique is perfect...even successful students will still stutter sometimes
 2. To improve communication further, we also need to help children *stutter more easily*
 - a) Modifying tension during stuttering
 - b) Reducing child's discomfort with stuttering
- B. **Exploring Stuttering.** To help children change stuttering, we help them learn *what they are doing* when they stutter by staying in and exploring stuttering
 1. First, they need to learn about their “speech machine”
 2. Next, they learn about how their articulators move during both stuttered and fluent speech
 3. By staying in the block, they can explore how to move their articulators to change stuttering
 4. This also helps develop self-monitoring skills and desensitizes children to stuttering
- C. Reducing Physical Tension
 1. Children require PRACTICE to learn how to reduce tension so they can stutter more easily
 2. Exercise: Pseudostutter with physical tension, then repeat the stuttering *with less tension*
 - a) This “negative practice” helps the child to learn to modify tension *after* it occurs (“cancellation”)
 - b) Eventually, the child can learn to modify tension *during* stuttering (“pull-out” or “easing out”)
 - c) (Help the child move from practicing on pseudo-stuttering to using techniques with real stuttering)
- D. Easy Stuttering: Helps children learn that they can change the way they stutter
 1. “Bouncing” and “gliding” or “stretching” are forms of pseudostuttering without tension
 2. Also reduces tendency to hide stuttering
 - a) The more children try to hide stuttering, the more likely they are to stutter more
 - b) If children are comfortable with stuttering, they can use voluntary stuttering to release tension in their muscles and prevent bigger blocks



III. Planning Therapy

- A. Many times, I begin with techniques designed to modify *stuttering*
 - 1. If we work on fluency first, children are likely to become “too” fluent in the treatment room (i.e., they become more comfortable and are better able to use techniques)
 - 2. Then, there is little stuttering left to practice with and we have trouble with transfer
 - 3. I also start with techniques for modifying stuttering so we don’t over-emphasize fluency
- B. After the child can modify stuttering events, I move to the *fluency* techniques

IV. How Do I Write Goals for All This Stuff?



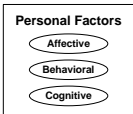
- A. First, a quick review.
 - 1. Goals contain several components:
 - a) What you want the child to be able to **do**
 - b) **How often** you want the child to do it
 - c) What **task** and **setting** the child will do it in
 - d) How much **support** the child will have
 - 2. Goals must be objective and measurable
 - 3. Goals must be focused on the state’s learning objectives to facilitate the child’s *educational, social, and vocational* endeavors
- B. Some Key Reminders
 - 1. “What the child will be able to do” is not the same as “what the child will *always* do”
 - 2. We should measure what we’ve actually taught the child to do (techniques), not the by-product that we hope will result (fluency)
 - 3. Be sure to measure all the domains you treat
 - 4. “Measurable” does not always have to mean straight “percentages”
- C. Sample Goals: Impairment-Level
 - 1. Child will demonstrate the ability to...
 - a) Use easy starts to enhance fluency
 - b) By exhibiting 5 easy starts
 - c) During oral-reading in the therapy room
 - d) With prompts from the clinician
 - 2. Child will demonstrate the ability to...
 - a) Use easing out to reduce physical tension
 - b) By easing out of 10 blocks
 - c) During an oral presentation in the classroom
 - d) Without cues from the teacher or clinician

V. Addressing Impairment: A quick review

- A. Most techniques for increasing fluency and reducing stuttering involve changes to **timing & tension**
- B. Techniques are easy to learn, but hard to use
 - 1. *Every* time the child uses them, it requires effort
 - 2. Practice makes it easier, but it never becomes fully automatic for most children
- C. When measuring children’s success, Don’t expect 100% fluency
- D. Be sure to measure what you actually *taught* the child to do

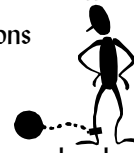
Addressing the Child's Negative Reactions

I. Techniques for addressing the child's ABC reactions



A. Negative reactions to stuttering increase severity and reduce the likelihood of successful treatment

1. Fortunately, many techniques for addressing impairment also reduce the child's reactions...
2. For many children, this is not enough! Helping the child develop healthy reactions paves the way for greater overall communication success



B. Child experiences many difficult emotions connected with stuttering

1. Stuttering is confusing, frightening. Child feels uncertain about himself, embarrassed, ashamed
2. Child needs to be able to express emotions. SLPs can help, and few others can (except support groups!)

C. Expressing emotions...

1. When child is teased, he probably feels frustrated and angry. Instead of lashing out, he can express his feelings in therapy, then **work with you** to find an appropriate response.
2. When a child stutters, he probably feels embarrassed or ashamed. Instead of berating himself for not being fluent, the child can talk about his feelings.

D. Is it REALLY okay to talk about stuttering? YES! It's even okay to say the "S" word!

E. Reducing Shame



1. Shame is a feeling of failure in who we are...there's something wrong with us
2. The way to reduce shame is to face the thing we're ashamed of
 - (1) Talk about it
 - (2) Think about it
 - (3) Express our feelings about it
 - (4) Learn about it
 - (5) Teach others about it
 - (6) Own it
 - (7) Become more comfortable with it
 - (8) Accept it

3. Re-framing Attitudes



I don't know why this is happening
Nobody likes me because I stutter
I stutter because I did something bad
There is something wrong with me

I know what I do when I stutter... I am the expert
I can stutter and still have lots of friends
Stuttering is not my fault!!!
I stutter and I AM OKAY!!!



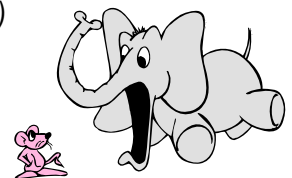
F. Addressing Cognitive Reactions



1. Understanding: Help child learn what stuttering is, and that he has some control over it
2. Perception: Help child understand that some disfluencies are a normal part of speaking; help the child become desensitized to stuttering
3. Tolerance: "Normalize" stuttering...it is just something some people do when talking
 - a) Many people stutter and still achieve their goals at school and in life
 - b) Help child learn...IT IS OKAY TO STUTTER
4. Support: Help child meet others who stutter through support groups (NSA, Friends)

G. A bit more about Desensitization

1. Desensitization is gradually exposing yourself to the thing you're afraid of.
2. Begin in easier situations and move toward harder situations along a *hierarchy*.



II. What about Measurable Goals for *this*?!? (these are just samples!)

A. Child will demonstrate the ability to...

1. Reduce negative reactions to stuttering
2. By using 10 pseudostutters
3. During structured conversation in the cafeteria
4. With visual cues by the clinician

B. Child will demonstrate the ability to...

1. Understand what he does during stuttering
2. By explaining the moment of stuttering 10 times
3. To different listeners, in different settings
4. Without cues from the clinician

III. Addressing the Negative Impact of Stuttering

A. By reducing the child's impairment and ABC reactions, we reduce the *likelihood* that he will experience negative consequences

Activity Limitation
Participation Restriction

1. To reduce educational, social, vocational impact, we focus on *generalization* into real-world settings
2. Child needs to be able to do *every technique* in *every setting* he faces on a typical day

Addressing the Child's Environment

B. Children who stutter live in an environment that does not understand their disorder

1. **Peers** may tease children about stuttering because it stands out, it looks different, and they don't understand why the child is doing it
2. **Teachers** may be afraid to draw attention to the child, yet they don't know how to help
3. **Parents** simply want the child to "stop stuttering" – and they believe this should be possible because "he's fluent sometimes"



Environmental
Factors

I. Peers: The Child's Daily Environment

A. Teasing and bullying



1. Why do bullies bully? Not because of the child who stutters, but because of problems with the bully himself (low self-esteem, etc.)
2. Why do other kids tease and bully? Because they don't know any better
3. Fine, but it still hurts anyway! So, treatment should include two components
 - a) Reduce the likelihood that kids will tease
 - b) Reduce the impact the teasing has on the child

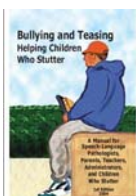


B. Teasing Part I: Insulating The Child

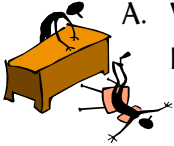
1. Just telling the child to "ignore it" doesn't help – but it would if the child could truly ignore it!
 - a) Bullies only bully you about things that bother you
 - b) The less the child is bothered by stuttering, the easier it will be for him to respond appropriately
 - c) (Notice how much of our therapy has focused on reducing the child's concern about stuttering)
2. We can enhance success by helping the child learn *other* appropriate reactions to bullying
 - a) Matter-of-fact comments that defuse the situation
 - b) Comments that show the bully it doesn't matter

C. Teasing Part II: The Peers

1. We can't stop the bully by ourselves—this is a broader issue involving everyone in the bully's life
 - a) We can, however, help the other children understand, so they will be less likely to "go along with" the bully
2. Educating others means giving them "the facts"
 - a) Ask the child what he wishes his friends knew about stuttering, then brainstorm ways to help him teach them
 - b) A "classroom presentation" puts the child in the position of expert, helps to reduce his shame, increases his feeling of control, and teaches him skills he will need for the rest of his life
 - c) Get the NSA's brochure on classroom presentations at www.WeStutter.org



II. Teachers: It's Up To Us!

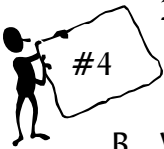


- A. Variability leads people to believe that children could just stop if they only tried hard enough
- B. It is up to us and the child to educate them.
 1. Unless they understand the disorder, they will not understand treatment
 2. Help the child write a letter to teach teachers about stuttering

III. Parents: The Toughest Part of Therapy

A. What do they want for their kids?

1. Like teachers, parents need to understand the broad-based nature of the disorder, and the broad-based nature of the treatment
 - a) We help them toward this by writing broad-based goals and by explaining stuttering **with authority and confidence** (something that many SLPs lack)
2. Parents see that the child is fluent sometimes, and they just want you to "fix it" all the time.
 - a) They need to learn our "Most Important Facts" such as:
 - b) Stuttering is not a "fix-it" disorder, it's a manageable disorder!



B. What do they really want for their kids?

1. To help parents understand the broader goals of treatment, ask them this question:

**Assuming your child does continue stuttering,
what would you like his life to be like in five years?**



2. Most want him to be happy, healthy, well-adjusted, not held back, able to communicate, to have friends
3. **These are exactly our goals;** we're just not getting there the way they expected us to

C. The Value of Support

1. Perhaps the best person to help a parent come to terms with a child's stuttering is *another parent of a child who stutters... someone who's been there*
2. The National Stuttering Association has listservs, local chapters, conferences, and "parent liaisons" to connect parents of kids who stutter with other parents
3. "Working with the NSA helps me do my job better"
4. **We don't have to do this alone!**



D. The Value of Supportive Parents

1. Supportive parents can help children learn to cope effectively with stuttering in many different ways
 - a) Many children benefit from a "safe place" where they don't have to worry about speech
 - b) Modifying speech is hard. If kids can be themselves sometimes, they have more energy to modify later
2. Supportive parents can reinforce the message of acceptance and communication taught in therapy
 - a) Parents can only provide this support if they have already dealt with their own emotions about the child's speech so *they* can accept stuttering too



E. Bringing Parents ALL THE WAY on board

1. There is so much involved in good therapy for stuttering, we can't expect the parents to get it all from brief meetings and parent conferences
2. Just as the child has been involved in therapy on a daily basis, the parents has to be involved
3. The child is the best person to teach parents about therapy SO...
4. After each and every session, I have my kids review the entire session with their parents so *they* "come along for the ride"



IV. What About Goals for the Environment-Level?

- A. Child will demonstrate the ability to...
 - 1. Educate his peers about stuttering
 - 2. By giving 1 classroom presentation
 - 3. During a report on Int'l Stuttering Awareness Day
 - 4. With support from the teacher and clinician
- B. Child will demonstrate the ability to...
 - 1. Educate his parents about stuttering
 - 2. By re-enacting therapy sessions 4 out of 5 times
 - 3. With the parents at home
 - 4. Without reminders by the parent or clinician

V. How Do We Know When We're Done With Therapy? (Dismissal Criteria)

- A. Therapy is over when the child can *successfully manage* stuttering and *communicate effectively* (Or, when he has "learned to be his own clinician")
- B. That doesn't mean he might not want or need more therapy later, when his goals change. Think of setting specific goals, accomplishing them, then moving on to other goals as the child grows older, and as he continues living with stuttering



VI. Summary

- A. Stuttering is about more than just stuttering, SO, therapy is about more than just stuttering.
- B. The goals of therapy are focused on helping children become *effective communicators by focusing on the entire disorder*
 - 1. **Impairment:** decreasing stuttering and increasing fluency through changes to **timing** and **tension**
 - 2. **Reactions:** reducing negative reactions by helping the child come to terms with and accept stuttering
 - 3. **Environment:** educating the child's environment to curb teasing and increase support/understanding
 - 4. **Impact:** minimizing negative impact of stuttering in the child's life (educational, social, and vocational)

VII. Key Stuttering Organizations and Resources

- A. Stuttering Foundation of America (SFA): www.stutteringhelp.org -- (800) 992-9392
 - 1. Publishes many helpful booklets & videotapes
 - 2. Provides numerous CE workshops for SLPs
- B. National Stuttering Association (NSA): www.WeStutter.org -- (800) We Stutter (937 8888)
 - 1. Publishes helpful booklets for children who stutter and their families
 - 2. Has more than 80 local chapters nationwide, including chapters for children and families
 - 3. Hosts annual conference with 3-day youth program
- C. Friends: Association for Young People Who Stutter: www.friendswhostutter.org
 - 1. Hosts an annual conference bringing together people who stutter from around the country
- D. Specialty Board on Fluency Disorders: www.StutteringSpecialists.org
 - 1. Recognizes specialists in fluency disorders; provides information to consumers and professionals
- E. The Stuttering Home Page: <http://www.stutteringhomepage.com>
 - 1. Contains a tremendous amount of helpful information about stuttering, including essays about stuttering, course syllabi, and links to other stuttering pages