

Essential Speech Skills for School-Age Children Who Stutter



Presented by:

Mark Allen, Ph.D. CCC-SLP
Center for Stuttering Therapy
820 Gaffield Place Evanston, IL 60201

email: markallen@cfst.com
internet: www.cfst.com
voice: (847) 475-4757
fax: (847) 475-8565

Essential Speech Skills for School-Age Children Who Stutter



Presented by:

Mark Allen, Ph.D. CCC-SLP
Center for Stuttering Therapy
820 Gaffield Place Evanston, IL 60201
voice: (847) 475-4757 email: markallen@cfst.com
internet: www.cfst.com

2009 OSLHA Annual Convention

Columbus, OH March 6, 2009

Overview of the Presentation



- ◆ Stuttering Modification and Fluency-Enhancing Strategies
 - Stuttering Modification Strategies
 - Fluency-Enhancing Strategies
 - Importance of Integrating both Approaches
 - One Component of Stuttering Therapy
- ◆ General Description of the Therapy Process
- ◆ Working with Stuttering: Rationales, Methods, and Practice
- ◆ Working with Fluency: Rationales, Methods, and Practice

Highlighted Students



 Ari (age 9)
[Evaluation Clip](#)



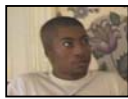
 Jack (age 11)
[Evaluation Clip](#)



 Alex (age 15)
[Evaluation Clip](#)



 Pat (age 16)
[Evaluation Clip](#)



 Aldynne (age 19)
[Evaluation Clip](#)





Stuttering Modification and Fluency-Enhancing Strategies

◆ Stuttering Modification Strategies

- ▶ Work directly with stuttering behavior
- ▶ Increase awareness, explore and decrease tension
- ▶ Reduce struggle behaviors
- ▶ Stutter in a more relaxed way
- ▶ Decrease sensitivity, increase feelings of control

(See Dell, 1993; Prins, 1997; Williams & Dugan, 2002; Van Riper, 1973)



Stuttering Modification and Fluency-Enhancing Strategies (cont.)

◆ Fluency-Enhancing Strategies

- ▶ Change breath flow, voice production, and articulation
- ▶ Increased confidence can lead to greater fluency

(See Cooper & Cooper, 2003; Runyan & Runyan, 1999; Shames & Florence, 1986; Webster, 1986)



Stuttering Modification and Fluency-Enhancing Strategies (cont.)

◆ Importance of Integrating both Strategies

◆ One Component of Stuttering Therapy

- ▶ These motor skills are one part of a multi-dimensional approach
- ▶ Therapy must also address cognitive, affective, linguistic, and social factors
- ▶ Family, friends, teachers, and others must be involved



(See Chmela & Reardon, 2001; Gregory, 2003; Guitar, 1998; Yaruss & Reardon, 2002)

Other Essential Components to School-Age Stuttering Therapy

- ◆ Learning about Speech Production and Stuttering
- ◆ Exploring Their Own Stuttering & Speaking Behavior
- ◆ Developing Healthy Attitudes towards Speaking & Stuttering
- ◆ Developing Problem-Solving Skills
- ◆ Transferring Learned Skills and Attitudes into Daily Life
- ◆ Taking Ownership of the Therapy Process

General Description of the School-Age Therapy Process

- ◆ Early Sessions: Learning about Speech and Stuttering
 - ▶ Learn about speech system
 - ▶ Identify and analyze how speech sounds are produced
 - ▶ Learn about and demystify stuttering
 - ▶ Explore student feelings and beliefs
 - ▶ Identify cognitive, affective, linguistic, and social factors
 - ▶ Promote openness and acceptance of stuttering

 [Jack's Strong Feelings](#)
 [Dave Teaching Friends](#)



General Description of the School-Age Therapy Process (cont.)

- ◆ Stuttering Modification Strategies
 - ▶ Catching the Stutter
 - ▶ Relaxing the Stutter
 - ▶ Slide
 - ▶ Easy Stuttering
 - ▶ Cancellation

General Description of the School-Age Therapy Process (cont.)

- ◆ Fluency-Enhancing Strategies
 - ▶ Relaxed Breath
 - ▶ Slow Stretched Speech
 - ▶ Smooth Movement, Easy Voice, Light Contact
 - ▶ Stretched Speech
 - ▶ Linked Relaxation Rhythm
 - ▶ Extra Intonation
 - ▶ Nearly Natural Speech
 - ▶ Natural Speech

General Description of the School-Age Therapy Process (cont.)

- ◆ Final Sessions: Carry-Over and Appropriate Expectations
 - ▶ Over-learn behaviors
 - ▶ Develop resistance to fluency disrupters
 - ▶ Systematic process of transfer
 - ▶ Realistic expectations

📺 Video Clip: [Stefan's Concern](#)



Working with Stuttering...

Description & Rationale

Teaching Method

Hands-On Practice



Working with Stuttering...

Catching the Stutter

Relaxing the Stutter

Slide

Easy Stuttering

Cancellation

Working with Stuttering...

Catching the Stutter

Description

Students identify moments of stuttering as they occur. Students signal instances of stuttering by closing their hand. They should try to match the tension level of the hand to the tension level of the disfluency.

Rationale

- ◆ Increases awareness
- ◆ Provides opportunity to modify stuttering
- ◆ Develops self-monitoring skills
- ◆ Encourages openness and acceptance
- ◆ Begins process of desensitization

(See Dell, 1993; Murphy, 2002; Prins, 1997; Reardon-Reeves & Yaruss, 2004; Van Riper, 1973)

Working with Stuttering...

Catching the Stutter

Teaching Method:

Demonstration & Hands-On Practice

📺 [Ari: Therapist Instruction](#)

📺 [Alex: Oral Reading](#)

📺 [Jack: Conversation](#)

📄 [Student Workbook](#)





Relaxing the Stutter

Description

Students purposefully stutter on a word with 100% tension, observe the disfluency, and then repeat the word with decreased tension.
(50% - 25% - 12% etc.)

Rationale

- ◆ Identify, analyze, and change stuttering
- ◆ Students see they can stutter more easily
- ◆ Reduces sensitivity
- ◆ Increases feelings of control
- ◆ Develops ability to work with stuttering

(See Gregory, 1989; Van Riper, 1973)



Relaxing the Stutter

Teaching Method:

Demonstration & Hands-On Practice

[Ari: Therapist Instruction](#)

[Jack: Game Activity](#)

[Alex: Words from Novel](#)

[Student Workbook](#)





Slide

Description

Students catch themselves during a moment of stuttering and then gradually "slide out" of the disfluency by identifying and stabilizing the tension, slowing down their articulation, and stretching out transitions between sounds.

Rationale

- ◆ Stabilizes and decreases tension
- ◆ Increases speech control
- ◆ Keeps speech moving forward
- ◆ Helps manage moments of stuttering

(See Murphy, 2002; Ramig & Dodge, 2005; Van Riper, 1973)



Slide

Teaching Method:

Demonstration & Hands-On Practice

[Alex: Therapist Instruction](#)

[Ari: Therapist Instruction](#)

[Alex: Conversation](#)

[Student Workbook](#)





Easy Stuttering

Description

Students intentionally produce relaxed, controlled repetitions of sounds, syllables, or words. This strategy can be used before a moment of stuttering, during a moment of stuttering, or at times when stuttering is not anticipated or occurring.

Rationale

- ◆ Reduces tension
- ◆ Helps manage moments of stuttering
- ◆ Counter conditions struggle behaviors
- ◆ Facilitates self-disclosure
- ◆ Promotes greater openness/acceptance

(See Dell, 1993; Gregory, 2003; Murphy, 1999; Ramig & Bennet, 1997; Reardon-Reeves & Yanuss, 2004; Williams & Dugan, 2002; Van Riper, 1982)



Easy Stuttering

Teaching Method:

Demonstration & Hands-On Practice

[Alex: Therapist Instruction](#)

[Ari: Game Activity](#)

[Pat: Conversation](#)

[Student Workbook](#)





Cancellation

Description

Students pause for a couple of seconds after a moment of stuttering (to acknowledge and analyze the disfluency), and then say the stuttered word again with less tension.

Rationale

- ◆ Increases feelings of control
- ◆ Desensitizes concerns about stuttering
- ◆ Reduces tension
- ◆ Helps to "center" the speaker

(See Guitar, 1998; Van Riper, 1973; Williams & Dugan, 2002)



Cancellation

Teaching Method:

Demonstration & Hands-On Practice

 [Jack: Oral Reading](#)

 [Alex: Conversation](#)

 [Student Workbook](#)



Working with Fluency...

Description & Rationale

Teaching Method

Hands-On Practice



Working with Fluency...


Relaxed Breath
Slow Stretched Speech
Smooth Movement
Easy Voice
Light Contact
Stretched Speech

Working with Fluency...

Additional Fluency-Enhancing Strategies

Linked Relaxation Rhythm
Extra Intonation
Nearly Natural Speech
Natural Speech

Working with Fluency...



Relaxed Breath

<u>Description</u>	<u>Rationale</u>
<p>Students learn to use relaxed diaphragmatic breathing as they speak.</p>	<ul style="list-style-type: none"> ◆ Promotes proper breathing patterns ◆ Provides foundation for other fluency skills ◆ Facilitates fluent speech production <p><small>(See Adams, 1990; Bloodstein, 1995; Cooper & Cooper, 2003; Denny & Smith, 1997; Ramig & Bennet, 1997; Runyan & Runyan, 1999)</small></p>

Working with Fluency...

Relaxed Breath

Teaching Method:

Demonstration & Hands-On Practice

 [Alex: Rationale](#)

 [Ari: Relaxed Breath with Voice](#)

 [Student Workbook](#)



Working with Fluency...

Slow Stretched Speech

Description

Students prolong individual syllables to approximately ten times their normal duration. All vowels and certain consonants (m, n, l, r, w, y, v, TH [voiced], z and j) are stretched. One syllable is spoken at a time.

Rationale

- ◆ Increases coordination of speech system
- ◆ Improves timing of articulation
- ◆ Reduces force/acceleration of muscles
- ◆ Increases control of muscle movements
- ◆ "Grounds" speech production
- ◆ Fosters improvements in speech fluency

(See Kully & Boberg, 1991; Perkins, 1992; Ramig & Dodge, 2005; Runyan & Runyan, 1993; Wall & Meyers, 1995)

Working with Fluency...

Slow Stretched Speech

Teaching Method:

Demonstration & Hands-On Practice

 [Alex: Therapist Instruction](#)

 [Jack: Rationale Review](#)

 [Ari: Word Level](#)

 [Student Workbook](#)



Working with Fluency...



Smooth Movement

Description

Smooth Movement helps students to produce gentle transitions between sounds. It is achieved by slowing, exaggerating, and blending transitional articulatory movements.

Rationale

- ◆ Abrupt movements may lead to stuttering
- ◆ Stutterers may have difficulty producing transitional movements between sounds
- ◆ Eases and relaxes articulation
- ◆ Helps students gain greater speech control

(See Bloodstein, 1995; Gregory, 1991; Wall & Meyers, 1995)

Working with Fluency...



Smooth Movement

Teaching Method:

Demonstration & Hands-On Practice

- [Alex: Therapist Instruction](#)
- [Alex: Workbook Syllables](#)
- [Jack: Smooth Movement Chart](#)
- [Student Workbook](#)



Working with Fluency...



Easy Voice

Description

Students initiate phonation of vowel sounds in an extremely relaxed and gentle manner.

Rationale

- ◆ Decreases tension in the phonatory system
- ◆ Facilitates initiation of voice production
- ◆ Reduces laryngeal blocks & glottal attacks

(See Cooper & Cooper, 2003; Healey & Scott, 1995; Guitar, 1998; Runyan & Runyan, 1999)

Working with Fluency...

Easy Voice

Teaching Method:

Demonstration & Hands-On Practice

 [Alex: Rationale](#)

 [Jack: Therapist Instruction](#)

 [Peter: Workbook Words and Phrases](#)

 [Student Workbook](#)



Working with Fluency...

Light Contact

Description

When producing stops (b, p, d, t, g, k) and voiceless fricatives and affricates (f, voiceless th, s, sh, h, ch), students touch their speech articulators together lightly in order to decrease articulatory pressure.

Rationale

- ◆ Certain consonants involve constriction
- ◆ Constriction naturally involves tension
- ◆ Tension may build and lead to stuttering
- ◆ Light Contact reduces articulatory tension

(See Conture, 2001; Healey & Scott, 1995; Peters & Guitar, 1991; Ramig & Dodge, 1995; Reardon-Reeves & Yaruss, 2004; Runyan & Runyan, 1999; Wall & Meyers, 1995)


Working with Fluency...


Light Contact

Teaching Method:

Demonstration & Hands-On Practice

 [Asif: Therapist Instruction](#)

 [Stefan: Syllables](#)

 [Jack: Word Level](#)

 [Teaching an Unfamiliar Listener](#)

 [Student Workbook](#)



Working with Fluency...



Stretched Speech

Description

Like Slow Stretched Speech, Stretched Speech involves prolonging syllables. However, Stretched Speech doubles the previous speed (e.g., increases the rate to approximately one second per syllable).

Rationale

- ◆ Initial step toward more natural rate
- ◆ Students must use skills more quickly
- ◆ Continues to help increase coordination
- ◆ Continues to "ground" speech production

(See Kully & Boberg, 1991; Perkins, 1992; Ramig & Dodge, 2005; Wall & Meyers, 1995)

Working with Fluency...



Stretched Speech

Teaching Method:

Demonstration & Hands-On Practice

[Aldynne: Therapist Instruction](#)

[Jack: Rationale Review](#)

[Alex: Light Contact Words](#)

[Student Workbook](#)



Working with Fluency...



Linked Relaxation Rhythm

Description

A rhythmic speech pattern in which relaxed, continuous phonation is maintained as students oscillate the loudness of their voice on successive syllables and words.

Rationale

- ◆ Reduces tension and choppiness
- ◆ Prevents tension from building
- ◆ Facilitates fluid, relaxed speech
- ◆ Reduces number of vocal initiations
- ◆ Decreases chance of stuttering

(See Bloodstein, 1995; Manning, 2001; Starkweather & Givens-Ackerman, 1997)

Working with Fluency...

Linked Relaxation Rhythm

Teaching Method:

Demonstration & Hands-On Practice

-  [Alex: Therapist Instruction](#)
-  [Pat: Conversation](#)
-  [Ari: Working with a Block](#)

 [Student Workbook](#)



Working with Fluency...

Extra Intonation

Description

Students exaggerate rising and falling inflections and vary the duration of their stretches. Extra Intonation enables students to speak in a more spontaneous and free-flowing manner, while integrating learned fluency skills.

Rationale

- ◆ Shifts students out of monotone quality
- ◆ Moves modification toward natural speech
- ◆ Adds variation and range to speech
- ◆ Creates non-periodic cycles of relaxation




(See Manning, 2001; Starkweather & Givens-Ackerman, 1997)

Working with Fluency...

Extra Intonation

Teaching Method:

Demonstration & Hands-On Practice

-  [Alex: Therapist Instruction](#)
-  [Jack: Phrase Level](#)
-  [Ari: Oral Reading](#)
-  [Pat: Conversation](#)
-  [Alex: Teaching a Peer](#)

 [Student Workbook](#)



Working with Fluency...



Nearly Natural Speech

Description

This modification involves increasing speech rate, reducing the exaggerated quality of Extra Intonation, using more normal intonation, and shortening certain stretches.

Rationale

- ◊ Uses fluency skills with sophistication
- ◊ Approximates natural sounding speech
- ◊ Maintains kinesthetic / physical awareness
- ◊ Facilitates transfer of fluency skills






Working with Fluency...



Nearly Natural Speech

Teaching Method:

Demonstration & Hands-On Practice

-  [Jack: Therapist Instruction](#)
-  [Ari: Conversation](#)
-  [Pat: Telephone Call to Store](#)
-  [Alex: Continuation Group](#)
-  [Dave: Cards with Friends](#)



 [Student Workbook](#)



Working with Fluency...



Natural Speech

Description

Natural Speech feels freer to the speaker and sounds normal to the listener. While the speech rate is faster than Nearly Natural, an overall centered feeling remains. It is a consciously produced speech modification.

Rationale









- ◊ Incorporates all fluency-enhancing strategies with high level of sophistication
- ◊ Involves a natural sounding speech pattern
- ◊ Used in conjunction with stuttering modification strategies

Working with Fluency...

Natural Speech

Teaching Method:

Demonstration & Hands-On Practice

-  [Jack: Therapist Instruction](#)
-  [Ari: Oral Reading](#)
-  [Pat: Conversation](#)
-  [Aldynne: Conversation](#)
-  [Jack: Conversation](#)
-  [Alex: Teaching an Unfamiliar Listener](#)
-  [Alex: Play Rehearsal & Performance](#)
-  [Student Workbook](#)



Questions & Comments



Speak Freely: Frequently Asked Questions

Is *Speak Freely: Essential Speech Skills for School-Age Children Who Stutter* a comprehensive therapy program?

No, it's not. *Speak Freely* is not intended to be a comprehensive program. While this resource is rooted in a multidimensional theoretical perspective of stuttering, it focuses entirely on one aspect of school-age therapy: that is, the development of stuttering modification and fluency-enhancing strategies.

Given that *Speak Freely* only addresses the physical dimension of a child's stuttering, it's imperative that it be used together with additional therapy activities that target cognitive, affective, linguistic, and social aspects of a child's stuttering problem.

What age students can use these materials?

These materials are appropriate for students aged 7 to 18. The content and language style of the strategy descriptions, rationales, and teaching methods are designed to suit elementary, middle, and high school students.

Is this resource appropriate for preschool children who stutter?

No, *Speak Freely* is not appropriate for use with preschool children. See Scott Yaruss' web site for information on preschool stuttering therapy (www.stutteringcenter.org). The Stuttering Foundation (www.stutteringhelp.org) and The Stuttering Homepage (<http://www.mnsu.edu/comdis/kuster/stutter.html>) also have excellent information, resources, videos etc. regarding preschool therapy.

Can the strategies presented by *Speak Freely* be used with adults who stutter?

Yes. The same stuttering modification and fluency-enhancing strategies can be used with adults. After therapists learn how to use and teach these strategies, materials can be modified for use with adults (e.g., by creating rationales and practice exercises that are age-appropriate).

Can these strategies be used with struggling readers or non-readers?

Yes. While it's convenient to use the written materials with children who read, the use of written materials is not imperative. Once therapists learn the various strategies, they can use them with any variety of therapy materials. Non-readers can also utilize the two Audio CDs which contain recordings of the entire Student Workbook and it's associated practice exercises.

Can *Speak Freely* be used with Down syndrome and/or cognitively disabled students?

This depends on the severity of the cognitive impairment. Generally speaking, many of these students are able to learn the various strategies. They tend to do well with the structured aspect of the therapy and

often enjoy using the different speech patterns. The most challenging part of therapy for cognitively disabled students has been related to maintenance and transfer. This may be due to the fact that using the skills, particularly in the beginning, requires a fair amount of focused attention.

Are these strategies helpful to children who clutter?

Cluttering is different from stuttering, and therefore one's overall approach to treatment will be different. Unlike stuttering, cluttering appears to involve disorganized speech planning. It's characterized by rapid and irregular rate of speech, excessive disfluencies, and often other symptoms such as language or phonological errors.

While the *Speak Freely* materials were not specifically designed to work with cluttering, they do involve a number of elements that help students who clutter. First, clutterers typically demonstrate reduced awareness of their speech, and the stuttering modification strategies such as "Catching the Stutter" and "Relaxing the Stutter" increase that awareness as students identify and analyze their speech behaviors. In addition, some students who clutter have difficulties with motor coordination and rhythm. During early stages of therapy, *Speak Freely* includes strategies that exaggerate various rhythmic patterns (e.g., Linked Relaxation Rhythm) and this can be helpful to children who clutter. Finally, over-articulating, tuning into the tactile sensation of speech production, and using a slow, prolonged rate can help students who clutter. Many of the fluency-enhancing strategies help clutterers to modify their speech in these ways (before gradually speeding up to normal rates of speech). Thus, *Speak Freely* materials can provide useful elements to cluttering therapy, but would need to be accompanied by intervention techniques that address the other aspects of cluttering noted above.

Are there some students for whom *Speak Freely* is not appropriate?

There may be. It's important to identify individual needs and tailor our therapy accordingly. For example, in certain cases it may be appropriate to spend less time on speech skill development and more time on affective and cognitive reactions to stuttering (e.g., desensitizing concerns about stuttering, reducing speech anxiety, addressing embarrassment and shame, promoting openness and acceptance, building self-confidence) and general communication skills (e.g., maintaining appropriate eye contact, resisting time pressure, using natural pausing and phrasing, developing self-advocacy skills).

Why are the stuttering modification strategies taught first?

Stuttering modification skills are typically taught first because doing so may (1) desensitize children's avoidance behaviors related to stuttering, (2) improve students' kinesthetic awareness of speech and speech tension, and thus allow them to repair moments of stuttering more easily, and (3) enable students to transfer learned skills earlier, and thereby experience the benefits of therapy sooner.

Do we have to teach the strategies in the order they are presented in the Student Workbook?

While the strategies are usually taught in the order presented by the Student Workbook, clinicians can modify this order when necessary. Some of the fluency-enhancing strategies do build upon each other and need to be presented in a relatively linear fashion. This will become apparent as one learns about the strategies.

Are students ever resistant to using a particular strategy?

While most students readily engage all strategies, occasionally a student might be reluctant to practice a particular skill. If this occurs, just give the child the time he/she needs. There is no reason to push anything. Some students might be resistant to practice the Stuttering Modification strategies because it involves stuttering in some way. Other students might be reluctant to practice the more exaggerated, slow speech patterns. If this occurs, make sure the student understands the rationale for learning and practicing the strategy, and then revisit it later.

If a student is resistant, it can be helpful to show him/her video clips of other students practicing the strategy that's being resisted. I've never had a student who didn't eventually demonstrate the willingness to learn all the strategies. That said, at the end of the treatment students may prefer to use particular strategies – and that's fine. We just want to make sure that they have as many options available to them as possible.

When and how do you work on the secondary characteristics of a child's stuttering?

Secondary characteristics are directly addressed early in therapy as students identify, explore, and change their stuttering with "Catching the Stutter" and "Relaxing the Stutter." When students practice "Relaxing the Stutter," they are encouraged to stutter in the way that they ordinarily would – this includes secondary characteristics. As they relax their tense speech behavior, they find that they can also reduce the magnitude and number of secondary characteristics. In addition, when students learn and use the fluency-enhancing strategies, secondary characteristics often decrease.

Much of the Audio CDs repeats what's in the Student Workbook. What's the rationale for this?

The two Audio CDs do include a word-for-word reading of the Student Workbook. Thus, it provides spoken models of all strategies and speech patterns. Therapists can play these recordings to students as they move through the Student Workbook. This reinforces what has been taught and allows clinicians to make simultaneous comments on different aspects of what is being presented.

Finally, given that speech-language pathologists in the schools are typically pressed for time, having the Student Workbook and its associated speech models on CD allows clinicians to learn these strategies by listening to the recordings during other activities (e.g., while driving etc.). This may sound trivial, but it's important that clinicians hear the speech models and practice them over and over so that they develop a high degree of skill using the strategies.

How do you help students to transfer their skills to the home environment?

When students' skills are well-developed, we need to help them create hierarchies of increasingly difficult speech situations, and then provide support (e.g., discuss, plan out, rehearse, go with them, etc.) as they transfer what they have learned into settings outside of the therapy room. Initially, it's helpful to choose a limited number of easier situations in which the strategies will be used (e.g., with particular people, in particular places, and/or at particular times). Gradually, speech skills should be used in increasingly difficult situations. As we do this, we need to enlist the help of others (e.g., teachers and staff at school and family members at home) and include them in the therapy process. Students need to feel comfortable with the way in which they modify their speech – ultimately, they will use the strategies that “feel right” to them.

The onus of carry-over should not be on the children alone. They need to be fully supported. We need to find ways to encourage, inspire, empower, and motivate our students – to help them see the value of being strong, effective communicators. Finally, parents, teachers, family, and friends should have realistic expectations. They should realize that (1) students will not be using their strategies all the time, and (2) there will be times when the skills breakdown. Indeed, the issue is not whether or not speech skills breakdown: It's how the child is able to manage it when it does.

What's the origin of these strategies? Is there any empirical evidence to support their use?

These stuttering modification and fluency-enhancing strategies are drawn from the work of numerous respected specialists who have treated stuttering over the last forty years. This resource was created in an effort to present these well-established practices to clinicians and clients in an explicit, integrated, and user-friendly format.

To date, outcome data for *Speak Freely* has not been systematically evaluated. Unfortunately, this is true for most stuttering therapy materials. Indeed, when Bothe and her colleagues (2006) reviewed stuttering treatment literature published between 1970 and 2005, they found that only 39 studies met widely accepted trial-quality inclusion criteria. Furthermore, *only 9 of these involved school-age children*. Findings from these nine studies showed that improvements in speech fluency can be achieved when various therapy techniques (e.g., prolonged speech, gentle onset, light contact) are employed in the context of structured programs that also provide intensive practice and a variety of response contingencies (Bothe et al., 2006, p. 335).

While *Speak Freely* is a highly structured program and includes strategies similar to the techniques noted above, outcome data has yet to be assessed. Given the importance of evidence-based practice and the paucity of school-age efficacy studies that meet appropriate methodological criteria, there is clearly a need to conduct research that evaluates the effectiveness of the strategies presented by this resource.

Bothe, A. K., Davidow, J. H., Bramlett, R. E., & Ingham, R. J. (2006). Stuttering treatment research 1970-2005: I. Systematic review incorporating trial quality assessment of behavioral, cognitive, and related approaches. *American Journal of Speech-Language Pathology*, 15 (4), 321-341.

Resources & References Related to School-Age Stuttering Therapy

- Adams, M. R. (1991). The assessment and treatment of the school-age stutterer. *Seminars in Speech and Language*, 12, 279–290.
- Bernstein Ratner, N. E. (1993). Parents, children, and stuttering. *Seminars in Speech and Language*, 14 (3), 238–247.
- Bernstein Ratner, N. E., & Sisskin, V. (2002). *Intervention strategies for children who stutter*. Rockville, MD: American Speech-Language-Hearing Association.
- Bloodstein, O. (1995). *A handbook on stuttering*. (5th ed.). San Diego, CA: Singular Publishing Group.
- Bothe, A. (2002). Speech modification approaches to stuttering treatment in schools. *Seminars in Speech and Language*, 23, 181–186.
- Borden, G. J., & Harris, K. S. (1984). *Speech Science Primer: Physiology, acoustics, and perception of speech*. (2nd ed.). Baltimore, MD: Williams & Wilkins.
- Bradberry, A., & Reardon, N. (1999) *Our voices: Inspirational insights from young people who stutter*. Anaheim Hills, CA: National Stuttering Association.
- Campbell, J. H. (2003). Therapy for elementary school-age children who stutter. In H. H. Gregory (Ed.), *Stuttering therapy: rationale and procedures*. Boston: Allyn & Bacon.
- Chmela, K. (1998). *The school-age child who stutters: Working effectively with attitudes and emotions*. Videotape No. 85. Memphis, TN: Stuttering Foundation.
- Chmela, K. (2006). *Focus on fluency: A tool kit for creative therapy*. Greenville, SC: Super Duper Publications.
- Chmela, K., & Reardon, N. (2001). *The school-age child who stutters: Working effectively with attitudes and emotions*. Memphis, TN: Stuttering Foundation.
- Couture, E. G. (1990). *Stuttering* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Couture, E. G. (2001). *Stuttering: Its nature, diagnosis, and treatment*. Boston: Allyn & Bacon.
- Cooper, E., & Cooper, C. (2003). *Cooper personalized fluency control therapy* (3rd ed.). Austin, TX: Pro-Ed.
- deGeus, E. (2001). *Sometimes I just stutter: A book for children between the ages of 7 and 12*. Memphis, TN: Stuttering Foundation.
- Dell, C. W. (1993). Treating school-age stutterers. In R. F. Curlee (Ed.), *Stuttering and related disorders of fluency*. New York: Thieme Medical Publishers, 45–67.
- Denny, M., & Smith, A. (1997). Respiratory and laryngeal control in stuttering. In R. F. Curlee & G. M. Siegel (Eds.), *Nature and treatment of stuttering: New directions* (2nd ed., pp. 128–142). Boston, MA: Allyn & Bacon.
- Fraser, J., & Perkins, W. (1987). *Do you stutter?: A guide for teens*. Memphis, TN: Stuttering Foundation.
- Gottwald, S., & Hall, N. (2002). Stuttering treatment in the schools: Developing family and teacher partnerships. *Seminars in Speech and Language*, 23, 41–46.
- Gregory, H. H. & Hill, D. (1980). Stuttering therapy for children. *Seminars in Speech, Language, and Hearing*, 1, 351–364.
- Gregory, H. H. (1991). Therapy for elementary school-age children. *Seminars in Speech and Language*, 12, 323–335.
- Gregory, H. H., & Hill, D. (1993). Differential evaluation-differential therapy for stuttering children. In R. F. Curlee (Ed.), *Stuttering and related disorders of fluency* (2nd ed, pp. 22–42). New York, NY: Thieme Medical Publishers, Inc.

- Gregory, H. H. (2003). *Stuttering therapy: Rationale and procedures*. Boston, MA: Allyn & Bacon.
- Guitar, B. (1997). Therapy for children's stuttering and emotions. In R. F. Curlee & G. M. Siegel (Eds.), *Nature and treatment of stuttering: New directions*, (2nd ed., pp. 280–291). Boston, MA: Allyn & Bacon.
- Guitar, B. (1998). *Stuttering: An integrated approach to its nature and treatment*. (2nd ed.). Baltimore, MD: Williams & Wilkins.
- Guitar, B. (1999). *The child who stutters: Practical advice for the school setting*. Videotape No. 88. Memphis, TN: Stuttering Foundation.
- Guitar, B., & Reville, J. (1997). *Easy talker: A fluency workbook for school-age children*. Tucson, AZ: Pro-Ed.
- Guitar, C. et. al. (2007). *Stuttering: Basic clinical skills*. DVD No. 9600. Memphis, TN: Stuttering Foundation.
- Ham, R. E. (1990). *Therapy of stuttering: Preschool through adolescence*. Englewood Cliffs, NJ: Prentice Hall.
- Healey, E. C. (2000). *Making sound clinical decisions*. Videotape No. 89. Memphis, TN: Stuttering Foundation.
- Healey, E. C., & Scott, L. (1995). Strategies for treating elementary school-age children who stutter: An integrative approach. *Language, Speech, and Hearing Services in the Schools*, 26, 151–161.
- Healey, E. C. (2004). *A multidimensional approach to assessment and treatment of stuttering in school-age children who stutter*. Presented at the Stuttering Foundation workshop on Stuttering therapy: Practical ideas for the school clinician, Cincinnati, OH.
- Heinze, B. A., & Johnson, K. L. (1985). *Easy does it-1: Fluency activities for young children*. East Moline, IL: LinguSystems, Inc.
- Heinze, B. A., & Johnson, K. L. (1985). *Easy does it-2: Fluency activities for school-aged stutterers*. East Moline, IL: LinguSystems, Inc.
- Manning, W. H. (2001). *Clinical decision making in fluency disorders* (2nd ed.) Vancouver: Singular Thompson Learning.
- Murphy, W. (1999). *The school-age child who stutters: Dealing effectively with shame and guilt*. Videotape No. 86. Memphis, TN: Stuttering Foundation.
- Murphy, W. (2002). *Stuttering modification*. Presented at the American Speech-Language-Hearing Association Division 4 Fluency and Fluency Disorders' Fluency Boot Camp, Nashville, TN.
- Kully, D., & Boberg, E. (1991). Therapy for school-age children. *Seminars in Speech and Language*, 12, 291–300.
- Perkins, W. H. (1992). *Stuttering prevented*. San Diego, CA: Singular Publishing Group.
- Peters, T. J., & Guitar, B. (1991). *Stuttering: An integrated approach to its nature and treatment*. Baltimore, MD: Williams & Wilkins.
- Prins, D. (1997). Modifying stuttering—The stutterers reactive behavior: Perspectives on past, present, and future. In R. F. Curlee & G. M. Siegel (Eds.), *Nature and treatment of stuttering: New directions* (2nd ed., pp. 335–355). Boston, MA: Allyn & Bacon.
- Ramig, P. (1999). *The school clinician: Ways to be more effective*. Videotape No. 87. Memphis, TN: Stuttering Foundation.
- Ramig, P. R., & Bennett, E. M. (1997). Clinical management of children: Direct management strategies. In R. F. Curlee & G. Siegel (Eds.), *Nature and treatment of stuttering: New directions*, (2nd ed., pp. 292–312). Needham Heights, MA: Allyn & Bacon.

- Ramig, P. R., & Bennett, E. M. (1995). Working with 7–12 year old children who stutter: Ideas for intervention in the public schools. *Language, Speech, and Hearing Services in the Schools*, 26, 138–150.
- Ramig, P. R., & Dodge, D. M. (2005). *The child and adolescent stuttering treatment and activity resource guide*. Clifton Park, NY: Thomson Delmar Learning.
- Reardon-Reeves, N. A., & Yaruss, J. S. (2004). *The source for stuttering: Ages 7–18*. East Moline, IL: LinguiSystems, Inc.
- Runyan, C. M., & Runyan, S. E. (1999). Therapy for school-age stutterers: An update on the fluency rules program. In R. F. Curlee (Ed.), *Stuttering and related disorders of fluency* (2nd ed., pp. 110–123) New York: Thieme Medical Publishers, Inc.
- Shames, G. H., & Florence, C. L. (1986). Stutter-free speech: A goal for therapy. In G. H. Shames & H. Rubin (Eds.), *Stuttering then and now* (pp. 447–453). Columbus, OH: Charles Merrill.
- St. Louis, K. O., & Myers, F. L. (2007). *Cluttering*. DVD No. 9700. Memphis, TN: Stuttering Foundation.
- Starkweather, C. W. (1997). Therapy for younger children. In R. F. Curlee & G. M. Siegel (Eds.), *Nature and treatment of stuttering: New directions*. Boston, MA: Allyn & Bacon.
- Starkweather, C. W., & Givens-Ackerman, J. (1997). *Stuttering*. Austin, TX: Pro-Ed.
- Van Riper, C. (1973). *The treatment of stuttering*. Englewood Cliffs, NJ: Prentice Hall.
- Van Riper, C. (1982). *The nature of stuttering*. Englewood Cliffs, NJ: Prentice Hall.
- Wall, M., J. & Myers, F. L. (1995). *Clinical management of childhood stuttering*. Austin, TX: Pro-Ed.
- Webster, R. L. (1986). Stuttering therapy from a technological point of view. In G. H. Shames & H. Rubin (Eds.), *Stuttering then and now* (pp. 407–414). Columbus, OH: Charles Merrill.
- Williams, D., & Dugan, P. (2002). Administering stuttering modification therapy in school settings. *Seminars in Speech and Language*, 23, 187–194.
- Yaruss, J. S. (Ed.) (2002). Facing the challenge of treating stuttering in the schools (Part I: Selecting goals and strategies for success). *Seminars in Speech and Language*, 23, 3.
- Yaruss, J. S. (Ed.) (2003). Facing the challenge of treating stuttering in the schools (Part II: One size does not fit all). *Seminars in Speech and Language*, 24, 1.
- Yaruss, J. S., & Quesal, R. W. (2003). Success in the schools: Bringing it all together. *Seminars in Speech and Language*, 24, 59–63.
- Yaruss, J. S., & Reardon, N. A. (2002). Successful communication for children who stutter: Finding the balance. *Seminars in Speech and Language*, 23, 195–204.
- Zebrowski, P. M. (2000). *Counseling parents of children who stutter*. Videotape No. 90. Memphis, TN: Stuttering Foundation.
- Zebrowski, P. M., & Cilek, T. Stuttering therapy in the elementary school setting: Guidelines for clinician-teacher collaboration. *Seminars in Speech and Language*, 18, 329–340.
- Zebrowski, P. M., & Schum, R. L. (1993). Counseling parents of children who stutter. *American Journal of Speech-Language Pathology*, 2, 65–73.