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Introduction

> Hence, considering our limited understanding of the neural underpinnings of stuttering and the variability in the expression of its symptoms, appropriate rhetorical forms (e.g., metaphors, analogies) are essential to the advancement of this or any scientific field . . . new paradigms can introduce new terminologies and hypotheses . . . [and] make allowances for those who stutter to have access to whatever approach or combination of approaches provides the most benefit. (Kalinowski, Saltuklaroglu, Stuart, & Guntupalli, 2007, p. 69)

Kalinowski et al. (2007) argued admirably for broad exploration and study of strategies to address stuttering. Although the authors' comments were specifically in support of the SpeechEasy,[1] they have provided an eloquent statement that captures the spirit of my more than 10-year journey examining the effect of mediated learning for the amelioration of stuttering. I was moved to share this statement with speech-language pathologists (SLPs) to introduce paradigms for the management of stuttering that incorporate a mediated learning perspective for both assessment and treatment. Since the first edition of this publication in 2002, my database has increased to 40 children over three states, including Arkansas, Missouri, and Texas. In addition, I have collected a sizeable number of anecdotal tidbits from students-in-training and practicing clinicians that influenced the current edition.

SLPs continue to express feelings of incompetence and anxiety when intervening with dysfluent clients (St. Louis, 1997; St. Louis, Tellis, Taunquin, Wolfenden, & Nicholson, 2004). These feelings are sometimes magnified by the volumes of information available regarding stuttering that highlight the complexity of the disorder. In contrast, some clinicians, in spite of the volumes of information available, may have not sufficiently updated their knowledge of stuttering for various reasons and may mistakenly assume there is "nothing new" to learn. The situation is also complicated by the seemingly divergent points of view regarding best practices for managing stuttering and the most appropriate ages at which to treat (for example, Chmela, 2005; Healey, 2007; Manning, 2001; Ryan, 2000; Schneider, 2004; Snyder, 2006). The Smooth Talking (ST) Program targets clinicians-in-training, beginning clinicians who may be uncertain of their competence with stuttering clients, as well as experienced clinicians wishing to add to their knowledge and skill base. The target population is school-age children (ages 7 to 15 years) with moderate to severe, persistent stuttering that has not been effectively managed directly with speech therapy or indirectly through parent counseling.[2]

Rather than offering this publication in the form of a traditional textbook, I am providing a compilation of resources for the clinician to study and incorporate in therapy with school-age children who stutter. Along with the Manual, other resource materials include:

- The workbook has been revised to include a Table of Contents and Introduction.

[1]The SpeechEasy is a prosthetic, in-the-ear device that delivers FAF to reduce and/or eliminate stuttering.

[2]The program is not recommended for children below the age of 6 years, as the approach is best for children at a later stage of metalinguistic awareness who are able to engage in analysis of themselves and their communication.

- A training DVD with demonstration of therapy techniques in a therapy session with a 13-year-old Mexican-American client. A training DVD was also included in the 2002 edition of *Smooth Talking*. A strength of the first edition DVD was the inclusion of children of color, and this is a strength of the second edition as well. In the current DVD, in addition to the full therapy session, I present brief samples of children of different ages who present with language delay, ADHD, and FAS, in addition to stuttering. Children presenting with co-occurring disabilities will resolve their stuttering at a generally slower pace and require modifications that are often not necessary when children are competent language users with adequate attention and emotional development (Radford, 2006, Screen & Anderson, 1996; Windsor, Scott, & Street, 2000). Therefore, *Smooth Talking* provides observations of children who have generally been underrepresented in the literature. (For example, see *Stuttering: Basic Clinical Skills*, released by Stuttering Foundations of America in 2007.)
- Board games (see Appendix D of the Manual) that can be used in addition to the Workbook in therapy for skill practice. In *Smooth Talking* (Radford, 2002), these board games were included in the Appendices and were prone to be overlooked or infrequently used by clinicians. In this book, the board games are included, along with game cards, for reference. A full set of board games are available, ready for use, from the publisher. The clinician need only provide a spinner and game pieces for advancing around the board. The board games may be used with individual children or in small groups with 2 to 3 other children who stutter for transfer training.
- A CD, Track 2 for an older child (11 and above), and Track 1 for younger children (7 to 11 years of age). The tracks on the CD were developed in collaboration with Ms. Scarlett Price-Watson, a certified SLP who is also trained in psychotherapy. These relaxation tapes—what I refer to as *cognitive mediation* (changing thinking and attitude) and what Scarlett originally referred to as *neurolinguistic programming*—are to be used under the supervision of a certified SLP. Further, I suggest that a CD be used after a baseline of stuttering is taken and some counseling has been initiated to address feelings and attitudes regarding stuttering. In the case studies provided later in the manual, two of the children described responded well to inclusion of a CD. Additional research is needed to establish the utility for use with a broader range of clients. However, my results to date indicate positive outcomes for children who stutter (Radford & Tanguma, 2006). Clinicians are encouraged to gather pre- and post-test data and make decisions about use of the CD with a particular client based upon observed positive trends in fluency associated with its use.
- Useful forms, including a clinician planning sheet, letter to parents, templates of "mind maps," and a template for notes to parents and clients are contained in the Appendices. The CD also contains speech samples for listening exercises to be used in therapy.
- Visual markers and mind maps (see Appendix A of the Manual) are broadly used in the fields of education, special education, and speech-language pathology. However, Elisabeth Wiig is among the few researchers to address

Feuerstein's contributions to mediated learning as the basis for mind maps and other supports to aid language disordered children (Feuerstein, 1990, 2003; Wiig & Wilson, 1998). When working with children exhibiting co-occurring challenges of learning disability and stuttering, changes in speech are often the result of extended teaching, conversations, and practice supported by visual props and verbal prompts to increase the likelihood of long-term learning. The CD also contains poems and stories that can be used during reading activities in therapy. Of course, these materials are not exhaustive; however, I have found that older children who have not had the experience of reading aloud, or who have reading difficulties complicated by stuttering, benefit from reading materials alternative to or in addition to materials from their textbooks. A more recent adaptation is to have older children read a story or poem to younger siblings or to a preschool class. This is a useful transfer training activity, providing the stuttering child the support of a prepared text to ease the task of initiating speech. This might be followed by training involving more complex speech tasks as represented in extemporaneous extended speaking. In addition, the reading materials are organized by sound categories. Therefore, if a child has particular difficulty with affricates, the SLP might choose to use "Sh, Ch, and J Practice," progressing from word lists to short stories and poems.

- Not included, but useful, are mini-CDs for the clinician to record and send home talking samples to parents to listen to excerpts from therapy. Clinicians may substitute audio cassettes or digital recordings on a personal listening device (IPOD, telephone, or organizer). Even in public schools, clinicians should routinely send home recorded therapy excerpts to serve as a model to parents.

ABOUT THIS MANUAL

What follows are chapters to acquaint clinicians with current notions of best practices regarding stuttering assessment and treatment, mediated learning as applied to stuttering, and sample goals and objectives with emphasis on functional outcomes for children. Further, current federal legislation and its influence on services in public schools will be addressed. Since the publication of *Smooth Talking* in 2002, there has been increased emphasis on a best practices approach to service delivery in speech-language pathology (ASHA, 1995; 1996, 2000, Ellis, Pollard, Ramig, & Dodge, 2005).

Chapter 1 revisits definitions of stuttering within a mediated learning framework. Concepts introduced in the *Smooth Talking* (Radford, 2002) are discussed along with additional information adapted from recent publications (Radford & Tanguma, 2006). There is an expanded discussion of Feuerstein's Theory of Mediated Learning and application to stuttering (Feuerstein, 2003). Teacher Talk to promote behaviors in children for effective management of stuttering is retained in this edition, with examples from recent case studies (Radford & Tanguma, 2006; Wiig & Wilson, 1998).

Current data serve to reinforce early notions that the use of mind maps to reinforce learning is essential to a mediated therapy approach with children who stutter. The use of visual markers serves to reinforce learning, establishing an external support (scaffolding) until the learning is internalized to the point that new patterns of behaving are established. Along with the use of visual markers, I intro-

duce cognitive mediation (relaxation tapes, or neurolinguistic programming) in conjunction with my colleague Scarlett Price-Watson, M.S., CCC-SLP. Scarlett is trained in hypnosis and has collaborated with me to adapt a listening tape for children 11 and older and a tape for children 7 to 11 years. Stuttering greatly influences children's attitudes about talking and can contribute to social isolation, teasing, depression, and anxiety. This is a relatively new technique for inclusion in routine clinical practice. I look forward to the research that may be generated by Scarlett's work and our continued collaboration.

Chapter 2 will address transfer training or generalization. The essential premise is that transfer training should begin the first day of therapy and not be an "add on" considered for some period of therapy in the future after a certain level of performance has been established. A general guideline is to transfer target behaviors as soon as they are initiated. The transfer takes place from the classroom, perhaps, to the time when the child and parent are riding home in the car. Transfer might involve listening to a tape of a new strategy during the car ride.

Chapter 3 addresses the behavioral therapies most common in addressing stuttering. Approaches fall in the general categories of fluency shaping, stuttering modification, and a combination (hybrid approach; referred to as an integrated approach in the first edition by Peters & Guitar [1991]). Behavioral approaches primarily target the speech behaviors. Some experts suggest that behavioral approaches are flawed by the underlying assumption that if stutterers do not succeed it is because of some failure within the stutterer. However, I would suggest that revisiting stuttering from a mediated learning perspective lends itself to the view that change is a complex phenomenon. Failure to change is not fully explained by the performance of the client, but an interaction of numerous factors, including the effectiveness of therapy and clinician factors.

Chapter 4 is an adaptation of an article that presents three case studies of children who presented with stuttering and were provided therapy based upon mediated learning principles. The general order of therapy for the average 60-minute session includes a 5-minute uncued sample and a 5-minute cued sample, followed by review of the previous session's learning, review of any assigned homework for transfer training, introduction of new strategies or practice, mapping and/or audio recording to share with parents, and brief review of the current session. Additionally, an inventory of children's pre- and post-changes in behavioral strategies to assist them in generalization or transfer training is provided for two of the children—one child who exhibited normal language and one child who exhibited language disorder. The inventory is also provided as a useful form for pre- and post-assessment.

Chapter 5 provides a discussion of modifications of the therapy schedule for implementation in public schools. In addition, sample goals for school-age children are provided. The goals have been revised from those provided in *Smooth Talking* (Radford, 2002) in light of the impact of recent federal legislation in the United States at the time of this publication, for example, the No Child Left Behind Act (U.S. Department of Education, 2002), which addresses inequities for students with disabilities. SLPs are encouraged to consider the modifications they request for children who stutter, particularly when the stuttering is compounded by other problems. Stuttering is cyclical. Children may experience periods of relatively stutter-free speech. However, situational factors, stress, and fatigue may prompt periods of great dysfluency. In developing the individualized education plan, clinicians should consider all possible supports that promote children's communication. A child who stutters might need to use a prosthetic device when giving a speech before the school assembly or, perhaps, an extended talking time during a class period for participa-

tion in reading or group discussion. Further, clinicians may need to work more closely with counselors to educate teachers about managing the child who stutters in the classroom. Additional resource materials are available through a variety of sources (Stuttering Foundations of America, for example). However, few materials are available that directly address stuttering and bullying. I provide some general guidelines based upon various school districts' approaches to school safety in combination with reports of parents and children whom I have served.

Chapter 6 includes detailed directions for the incorporation of the worksheets provided in the accompanying Workbooks and games, as well as use of the reading materials and maps provided on the accompanying CDs. Chapter 6 also reintroduces the clinician worksheet as a preplanning tool. Clinicians are cautioned to remember that the materials and resources here do not replace adequate preparation and training. If extended practice or transfer training materials from *Smooth Talking* are to be used by a speech assistant, rather than a licensed SLP, the SLP should choose the activities to be incorporated in therapy. The SLP should meet with the assistant on a regular basis to determine that the assistant is maintaining adherence to the appropriate sequence of lessons and strategies and can appropriately manage the client.

A thorough review of the manual, training DVD, and Workbook should be sufficient preparation for incorporation of *Smooth Talking* in therapy. In this resource, as I emphasize on the training DVD, I discuss the term *program* due to the negative connotations associated with the term by some SLPs (i.e., Chmela, 2005). The materials and resources provided are multifaceted, with accruing evidence of their utility (Radford, 2002, 2004, 2006) based upon research and clinicians' positive reports at various conferences and workshops. What is provided are materials around which to base conversations. The theoretical background provides a framework in which to develop the most effective conversations.

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Clinician Guidelines for the Workbook

ONE SIZE DOES NOT FIT ALL

The Workbook was developed with individualization in mind. Not all clients will need all the worksheets provided. It is important that you select the worksheets that are best suited to your client's needs. Following your gathering a case history, interviewing the child and important caretakers, peers, and teachers, and assessing communication skills, you will develop your goals. Some guidance for goal development and actual goals are provided in the Manual. Once goals are selected, review the Workbook to determine the guided lessons that best suit your objectives. Be warned that some worksheets require that you gather some materials in advance. So, for my dear colleagues working in public schools or for clinicians-in-training, some advance preparation is required to obtain the best benefit from some of the worksheets. Use the Clinician Preplanning Worksheet in the Appendix. It is described as a preplanning worksheet because the final goals will be those discussed with the client, his parents, and teachers. All clients, regardless of your objectives, should receive an introductory postcard or letter in the mail to initiate transfer training from the first day of therapy. All clients should have a session on identification of their own particular stuttering behaviors with periodic review to encourage retention of this information.

COMMUNICATION ACROSS MULTIPLE MODALITIES: START WITH MAIL

The first page of the Workbook is a letter to your client. Regardless of the subsequent worksheets you select for use, all stuttering clients with whom you are using this approach should receive a letter in the mail from you. The letter should be brief, personal, and encouraging in tone. The rationale is to bombard the child or adolescent with messages that disrupt nonproductive thinking or dysfunctional communication routines. Further, my experience is that parents and children bombarded with lengthy, mass duplicated correspondence will tend to ignore it. A brief, personal note may receive far more attention and have greater influence. Because of HIPAA regulations and the difficulty with assuring privacy via e-mail, regular mail is suggested for the first follow-up contact with your client after your first session. Timing is critical. See the DVD that accompanies the ST program and provides a sample therapy session with incorporation of the client letter.

You might obtain different postcards that you may use for a personal note to your clients. Remember, if there is any confidential information you wish to share in writing, put the postcard in an envelope. Be certain to talk with parents in advance of initiating your letter-writing routine so that they know their child will receive mail.

THE GENERAL GUIDELINES ARE FOR YOU

Make an effort to distract the child from reading ahead in the Workbook. Curious and efficient learners who read well will generally look through the entire Workbook. Further, I would encourage you to issue worksheets from the Workbook to the client one at a time. Or you might choose to collect the Workbooks

after you complete a lesson so the client will not be constantly looking ahead. This will decrease the likelihood of losing the child's strong response to a page because of the adaptation effect.

WORKSHEET USE

Worksheets work best if you know in advance what is on the sheets and how you want to use them. Practice giving directions in an interesting manner. Recall that a sample lesson is provided on DVD that provides a model of worksheet use. Worksheets should be:

- Used briefly for only a portion of any given session.
- Used in conjunction with something else (a game, pretend play, conversation).
- Used to introduce, reinforce, or review concepts.
- Discontinued for a time if you are unable to engage the client's interest and participation.

Board games are provided with the ST program that may be used in conjunction with the worksheets. Some board games are specifically designed for talk practice. Review suggestions for board game use in addition to worksheet use in the Manual.