



SMOOTH TALKING

A CURRICULUM FOR
SCHOOL-AGE CHILDREN
WHO STUTTER

SECOND EDITION

NOLA T. RADFORD

Smooth Talking

**A Curriculum for School-Age Children
Who Stutter**

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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.

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

²The 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 work-

sheets 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 non-productive 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.

*In memory of my late parents
Samuel and Amanda Lee Taylor*

*My late Grandparents
Nola Taylor
Samuel and Earlee Massie Taylor*

*My feisty Grandmother
Azzelee Williams*

*My husband and sons
Lee Radford and Tom, Samuel, and Brad*

A host of colleagues, students, friends, and family

The families participating in my research

Chapter 1

Mediated Learning and Mapping Applied to Fluency Disorders

Stuttering is the inability to talk like other people without excessive struggle and hesitation. It is characterized by repeating words, prolonging sounds, or not getting the words out. These particular speech behaviors are well known by speech-language pathologists (SLPs) as characteristics of stuttering. Stuttering may occur with a fluency disorder known as cluttering, which is characterized by a rapid or irregular speech rate, excessive dysfluencies, and other symptoms such as language or phonological errors and attention deficits (Special Interest Division 4, 1993 in American Speech-Language-Hearing Association Supplement No. 19, pp. 29-36 [ASHA], 1999). In addition to the speech difficulties, children and adults who stutter and/or clutter may experience a complex of private and difficult emotions because of the reactions of others.

RESULTS OF NATIONAL STUTTERING ASSOCIATION SURVEY

In 2002, a national survey of the National Stuttering Association (NSA) resulted in responses from 544 adults who stutter and 98 parents of children who stutter. McClure and Yaruss (2003) asserted that the survey confirms the negative impact of stuttering on quality of life, with adult respondents reporting interference with performance at work or school, job and promotion denials, and interference with social and family life. Individuals who do not exhibit

fluency disorders may react to individuals who are clinically dysfluent with pity, disgust, teasing, impatience, or avoidance.

Eighty-five percent of the NSA adult survey participants indicated that speech treatment is not a one-time solution, with this cohort reporting two or more different treatment experiences, according to McClure and Yaruss (2003). Further, 31% of adult survey respondents reported five or more periods of speech treatment. McClure and Yaruss also suggest that people who stutter reported greater success with speech treatment that focuses on attitudes and speech modification rather than speech modification alone, with 50% rating their combined attitude and speaking therapy as very successful, 39% rating their therapy as somewhat successful, and 10% rating their therapy as not successful. Of those who had experienced speech treatment to stutter more easily, 30% reported therapy as very successful, 57% as somewhat successful, and 13% reported no success. Of those who had therapy so they "would not stutter," only 19% reported their therapy was very successful, 53% as somewhat successful, and 27% as not successful. The authors concluded that although all stuttering treatments are effective for some, no one approach works for everyone (McClure & Yaruss, 2003). Thus, there is a need to continue research to identify the therapy or therapies that will result in successful communication management for children and adults who stutter. Mediated learning merits use as an approach to manage stuttering.

CURRENT VIEWS REGARDING STUTTERING AND IMPLICATIONS FOR INTERVENTION

The NSA survey highlights some important areas of consensus regarding stuttering as addressed by numerous researchers and provides segue to summarize some points about our current understanding of stuttering. First, stuttering is complex and, for some, it poses a lifelong challenge. Second, stuttering may be cyclical, increasing in severity at particular periods and decreasing in severity during other periods. Third, stuttering is characterized by genetic predisposition. Therefore, children who have parents who stutter are more likely to become stutterers. Researchers are divided regarding whether stuttering is the result of multifactorial inheritance or the result of a single gene. Stuttering can be resistant to change, with some researchers explaining the stuttering as an adaptation (Snyder, 2006). Perkins, for example, referred to stuttering as "addictive," which can be taken to mean an adaptation (Perkins, 1993).¹ Fourth, environmental factors may exacerbate stuttering. Therefore, when counseling parents, I reassure them that they do not cause their children to stutter; however, parents may increase the amount or severity of stuttering during a particular situation if they react in certain ways. Fifth, stuttering management is a useful conceptualization regarding best practices and therapeutic outcomes as opposed to therapy focusing only on the child's speech and 100% fluency.

MANAGING STUTTERING

Management should include therapy to address establishment of effective communication, and may include:

1. Speech that varies along a continuum from stutter free, to mildly stuttered speech, to prosthetically-aided speech.
2. Counseling to address emotions (embarrassment, fear of talking, frustration), attitudes, and traumatic experiences (teasing and bullying).
3. Relaxation training combined with cognitive mediation with parent observation to influence thinking about stuttering, to change parent-child talking routines, and to provide a nonthreatening context for emotional expression.
4. Visual aids such as maps, illustrations, journals, and client-generated drawings as memory, learning, and generalization aids.

ABOUT MEDIATED LEARNING

Within a mediated learning (ML) framework, stuttering is considered a factor that creates a moment of crisis for the school-age child who is a chronic stutterer. The clinician serves to interject himself into the day-to-day crises of stuttering to lessen the impact of the event and to assist the child in establishing effective ways to move beyond the moments of stuttering and communicate effectively. The clinician serves as a facilitator to frame messages that enhance the child's thinking and experience with communication. The clinician serves as a guide to help the child discover effective problem-solving strategies or intelligent ways of behaving to establish or restore effective communication and positively influence interactions with family, teachers, friends, and peers.

The theoretical tenets of mediated learning were developed by Reuven Feuerstein, who examined ways to assist the poorest function-

¹Over 30 years ago now, Perkins explained that because stuttering reduces systolic blood pressure, it might be addictive. This was the explanation he offered for the resistance of stuttering to change.

ing children and adolescent orphans who were displaced by the Holocaust and World War II. Feuerstein (1990) was motivated to eliminate the use of static assessment methods for immigrants, which often resulted in many children failing to score well enough to be allowed the opportunity to relocate. He developed dynamic cognitive assessment to determine learning propensity in these children (Figure 1-1). Feuerstein used the term *propensity* to replace the term *capacity* to describe intelligence. Feuerstein reasoned that *capacity* is associated with a limited, fixed view of intelligence, whereas *propensity*, in contrast, conveys the meaning of thrust or energy, and captures better a conceptualization of intelligence as modifiable. Mediated learning has had significant influence upon special education paradigms and approaches to teaching students with learning disabilities. Although dynamic assessment is quite familiar to SLPs, the connection to Feuerstein's original work might be less well

known. This is unfortunate, given that some of his original notions bear revisiting with direct application to stuttering as something that is modifiable, albeit a challenge to modify. The resistance of stuttering to change has to do with a number of factors. These will be considered in a modification of Feuerstein's original model of learning to explain the complex etiology of stuttering.

The process of applying intelligence, according to Feuerstein, leads toward higher levels of adaptation. Further, adaptation may be negative or positive, dependent upon the complex interaction among "conditions, capacities, and behaviors" (Feuerstein, 2003, p. 18). Feuerstein defines adaptation as the changes an organism undergoes in response to novel situations. Therefore, individuals with impairments may be identified by slow and/or limited modifiability. However, the issue of modifiability is clouded when one considers that change will also be limited or maladaptive

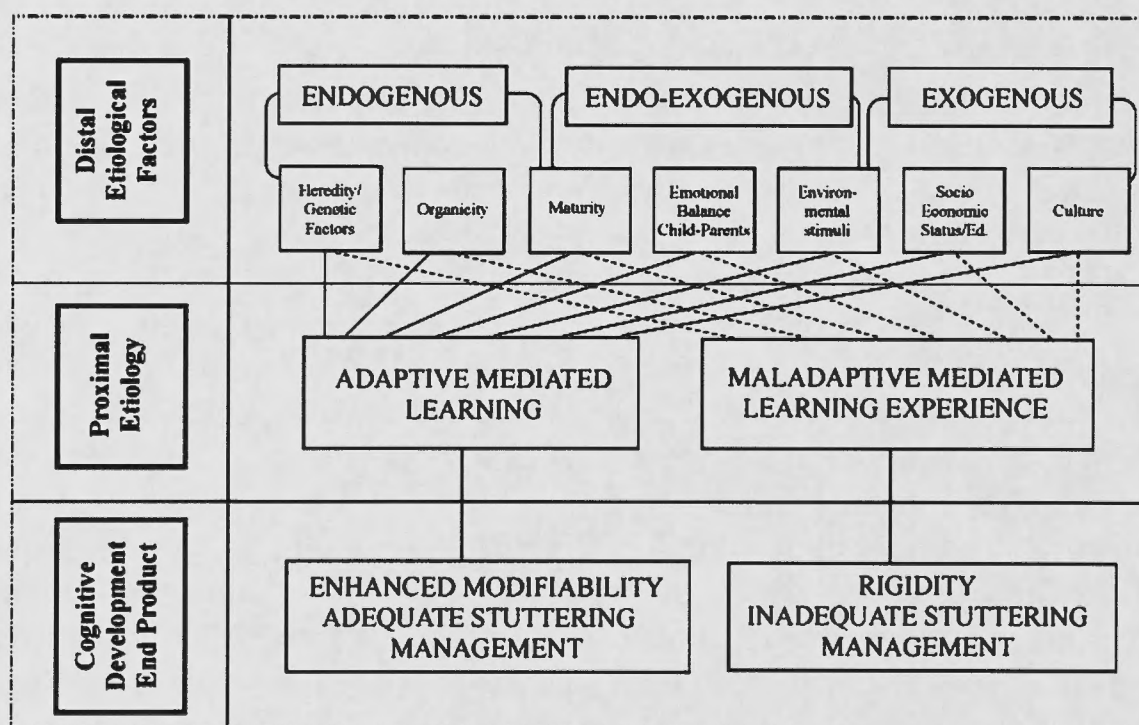


Figure 1-1. Distal and proximal determinants of differential cognitive development (modified for stuttering). From *Feuerstein's Theory and Applied Systems: A Reader*, by R. Feuerstein, 2003, Jerusalem, Israel: International Center for the Enhancement of Learning Potential. Copyright 2003. Adapted with permission.

if the organism or individual has limited access to what Feuerstein describes as the two modalities for learning: direct exposure and Mediated learning experience (MLE). Individual differences in the rate of learning because of heredity, illness, disease, trauma, environment, personality, and so forth, explain, to some degree, limited improvement in communication management in spite of clinical intervention. The other barriers to learning, Feuerstein proposes, are the frequency and intensity of MLE interactions.

In previous discussions (Radford, 2002; Radford, 2006), the role of the mediator in stuttering was introduced; however, the critical role of the SLP as mediator for children with chronic stuttering may not have been explored sufficiently. Borrowing Feuerstein's words to apply to stuttering therapy, the role of the SLP in serving the child with chronic stuttering is to "change stimulus from a fleeting, randomized, almost imperceptible occurrence to a powerful, inescapable encounter that will be registered, integrated, and mastered by the learner" (Feuerstein, 2003, p. 23). Put simply, stuttering therapy for older children who have not responded to therapy, or who have experienced relapse, must be intense and well ordered, addressing multiple factors. Further, the "inescapable encounter" must be with fluency—at some level—with successive building to higher levels of fluency, represented by increased periods of speech fluency under different speaking conditions and demands, and with different people.² The clinician must communicate with the child in precise ways and be well aware of the pragmatic function of his communication. Table 1-1 is an adaptation of Feuerstein's notions regarding the particular mind states or parameters that lead to change or cognitive modifiability. Examples

are provided on the DVD that accompanies this Manual.

Heredity and genetic factors and organicity are endogenous, distal etiological factors when considered in the context of Feuerstein's Model in Figure 1-1. Stutterers are a heterogeneous group, with some exhibiting additional communication impairments in addition to the stuttering constellation. The prevalence and incidence of stuttering co-occurring with other impairments is unclear. Although some stutterers exhibit associated communication difficulties in language and/or articulation, some exhibit advanced language use and may be gifted. Developmental stuttering often appears between the ages of 4 and 6 years, with almost 80% of these children recovering without direct intervention (for example, see Zebrowski & Kelly, 2002). More females recover than males (85% as compared to 69%; Ambrose & Yairi, 1999; Throneburg & Yairi, 2001). Maturation level, which is influenced by both development and culture, is an endo-exogenous factor that influences the child. Another factor that is influenced both by propensities of the organism as well as the environment is emotional balance. Exogenous factors include socioeconomic status, educational level, and cultural differences. Therefore, for example, in some cultures, stuttering may be tolerated and viewed as "fate", whereas in other cultures stuttering is viewed as an impairment to be remediated. The important point to consider is that distal etiological factors associated with cognitive development may influence stuttering but do not necessarily lead to expression or maintenance of stuttering in and of themselves. The factor that contributes significantly to outcome is the MLE, considered a proximal factor in the expression of stuttering. Appropriate MLE will lead to successful stuttering

²Further, if that encounter cannot be established with behavioral methods alone, other strategies should be considered (see, for example, Bothe, Davidow, Bramlett, & Ingham, 2006; Snyder, 2006).

Table 1–1. Feuerstein's 12 Parameters Applied to Stuttering

<i>Behavior</i>	<i>Description</i>	<i>Sample Clinician Talk</i>
Persistence	Encourage multiple attempts; practice <i>Feuerstein: Intentionality is a vital characteristic to the development of modifiability. Intention animates interactive behavior. Mediation of competence, regulation, and control.</i>	"Try that again." "Repeat it five times." "With practice, it will get easier."
Cognitive Flexibility	Encouraging change; different perspectives <i>Feuerstein: Involves intentionality, reciprocity, and transcendence. Reciprocity is give and take between the mediator and mediatee. transcendence is the mediator's role to broaden the scope of the interaction. Mediation of sharing, awareness of change.</i>	"I wonder if there is a different way?"
Listening	Use of recorded messages that describe emotions associated with stuttering; methods to cope, outcomes. <i>Feuerstein: Mediation of challenge, psychological differentiation, change.</i>	This is only one example of listening; listening is basic to all the other behaviors.
Precision in Thought Reflection	Thinking and preplanning (here/now thinking) <i>Feuerstein: Mediation of meaning becomes the generator of the emotional, motivation, attitudinal, and value-oriented behaviors of the individual. Involves intentionality and transcendence. Mediation of psychological differentiation, goal-seeking, setting, planning.</i>	"Take some time to think."
Using Prior Knowledge Reflection	Thinking after the fact (memory). <i>Feuerstein: Intentionality, meaning, and transcendence. Mediating an optimistic outlook, feeling of competence.</i>	"Tell me what helped most during your last session."
Precision of Language	Improving word choice; word retrieval; strategies to deal with word fears. <i>Feuerstein: Mediation of meaning becomes the generator of the emotional, motivational, attitudinal, and value-oriented behaviors.</i>	"So, gymnasium is a word that's hard for you now. Do you think that a different word could be used?"
Using All Senses	Using visual maps, altered speech, and technology to support fluency. <i>Feuerstein: Intentionality, transcendence.</i>	"With the DAF set now, I want you to continue talking about the picture."
Metacognition	Encouraging the child to think about his mood and attitude and how they affect communication. <i>Feuerstein: Intentionality, transcendence, meaning. Search for novelty and complexity. Optimistic outlook.</i>	"So, you feel mad about your speech; you say it makes you look mad and other people may think you are mad at them." "You are more than stuttering." "Think about all the things you do well and are proud of."

continues

Table 1-1. *continued*

Behavior	Description	Sample Clinician Talk
Metacognition <i>continued</i>		"Think how you have learned to deal with your stuttering."
Creativity	Encouraging the child to apply what he has learned in new situations. <i>Feuerstein: Intentionality, transcendence, meaning, Novelty.</i>	"So, today, all on your own, you decided to put a sticker on your desk as a reminder."
Application to New Situations	Transfer training to new people and/or situations. <i>Feuerstein: Intentionality, transcendence, meaning, Goal-achieving behavior, Regulation of behavior.</i>	"You will start school again, soon. How may we get ready for that?"
Wonderment, Curiosity, Inquisitiveness, and Enjoyment*	Are outgrowths of all the influence of the successful application of previous strategies. Occur spontaneously. <i>Intentionality, transcendence, meaning, novelty, optimistic outlook.</i>	Clinician acknowledges examples of the client's behaviors.

*Last parameter is actually two combined: Curiosity, wonder, inquisitiveness (synonyms), and enjoyment, with "enjoyment" being the twelfth parameter.

Note. Adapted from "Mediations for Stuttering Reduction," by N. Radford, 2006, *Echo On-Line Journal*, Table 1. Behaviors to Promote Fluency/Communication Management.

reduction and/or fluency and/or stuttering management. On the other hand, inappropriate MLE leads to expression of the stuttering and may support unsuccessful stuttering management. Insufficient or incomplete learning would also result in experiences of failure, which would support negative emotions and attitude. Unsuccessful mediations would include, as described by Plexico and colleagues (2005): (a) an approach that promotes a gradual awareness about stuttering rather than an intense approach with provision of behavioral tools for change, (b) limited attention to the client's perspective about stuttering and his feelings of helplessness, anxiety, and low self-worth, and (c) a criterion of success based on unrealistic goals. Appropriate mediations, particularly for the young child just beginning to stutter, are not necessarily provided through formal therapy (Zebrowski & Kelly, 2002). One could speculate that, in these instances, parents are able to provide MLE that enhances their children's recovery. However, in those cases where

recovery does not occur, direct therapy with an SLP without provision of the appropriate mediations will not necessarily lead to successful outcomes either.

MIND MAPS

Mediated learning typically incorporates visual maps, flowcharts, or other types of visual tools. Mind maps are used in therapy to assist children in establishing more efficient ways of thinking, expressing feelings, and speaking more fluently. The ST Training DVD and the case studies that follow in Chapter 4 provide numerous examples from therapy to illustrate how:

- Mind maps can be used to enhance children's attention to their speech and language use.
- Mind maps serve to reduce the memory loads for children with co-occurring stuttering and language disorder.

Mind maps provide an external and visual prop to guide thinking and talking. Wiig and Wilson (2001) provide a clear and useful description of mind maps and their presumable tie to the internal mental models or schema that children develop as they learn, which I cite in *Smooth Talking: Stuttering Therapy Program* (Radford, 2002):

Mental models can be thought of as internalized, reduced dimension projections, or representations (abstractions) of events, encounters, relationships, or problem situations. . . . Mind maps (conceptual maps) and organizers for constructing knowledge are external, physical representations of events, encounters, relationships, or problem situations. (p. 3)

Support for mind maps is found in the literature that addresses efficient cues for learning and/or rehabilitation for children and adults (Evans, Emslie, & Wilson, 1998; Gueye, Viallet, Legallet, & Trouche, 1998; Linebaugh, Shisler, & Lehner, 2005; Paul & Tipper, 2003; Sheehy, 2002; Thieman & Goldstein, 2004; Worrall & Singh, 1983).

External cues—whether visual, auditory, or a combination—have been shown to be effective to improve memory, learning, word retrieval, social skills, and peer relations. Borys (1978) investigated the effectiveness of verbal and imaginal elaborations on educable mentally retarded (EMR) adolescents' ability to free recall. Subjects were shown 15 pictures, presented in sets of three over five trials. After each trial, subjects were asked to recall the pictures. Elaborations provided by the experimenter to the subjects were found to facilitate recall. Paul and Tipper (2003) examined the influence of object recall to object-based rep-

resentations to facilitate memory. The authors concluded that memory is dependent on object-based representations and that the distinctive colors and shapes used for cueing in a sequential cueing task influenced the inhibitory process of attention and were associated with visual search. In a study of five elementary age students with autism, Thiemann and Goldstein (2004) found that the use of written text cues and peer training resulted in children's improved social communication. The authors concluded that the combination of approaches was necessary to improve the quality of children's relationships. Given that children who stutter may have trouble in peer relationships, they may benefit from a mediation approach that uses a multiplicity of cues to affect change in speaking, attitudes about communication, and relationships with family and peers.

Using the search engine Communication Disorders Dome (2007) resulted in 150 hits related to the topic of "cueing." However, only one reference to cueing as applied to stuttering was found in this particular search engine. The study was by McFarlane and Shipley (1981), who examined auditory and visual stimulus presentations on the phonation onset time of 12 adult stutterers and 12 nonstutterers. Neither the combined auditory and visual cues nor the auditory cueing was found to assist the stutterers. Their reaction time for phonation onset did not improve significantly. Cues for the rapid initiation of speech, based on this study and others that have examined reaction time in children and adults who stutter, indicate that a therapeutic approach that aims to speed up speech production is not necessarily effective. Cues, however, for the speech strategies of easy speech onset, controlled fluency, and milder stuttering have been found to be effective.³

³An exhaustive literature review of cueing would be beyond the scope of this manual. The primary focus is upon application of the Smooth Talking (ST) (Radford, 2002) program. However, the reader is referred to a representative sample of articles regarding stutterers' reaction times and speech initiation (e.g., Cross & Luper, 1983; Harbison, Porter, & Tobey, 1989; Peters, Hulstijn, & Starkweather, 1989).

Cues or mediations for speech change should incorporate the strategies of choral speaking, continuous phonation, rate control, and/or some type of altered auditory feedback. Mediations or cues for attitudinal change and resolution of negative emotions incorporate the strategies of counseling, bibliotherapy, journal writing, and support groups.

Visual cues and markers (mind maps) can be used to address speech, attitude, and emotions. Mind maps should be used frequently. If not each session, maps should be used at least once per week to draw the child's attention to the essentials of what is to be learned and applied. In studies of mediation applied to stuttering, I have generally used mapping each therapy session (Radford, 2002; Radford & Tanguma, 2006). Mind map illustrations and other aids are provided in Appendix A of the Manual. There are about 10 templates, in a suggested sequence for use from the beginning of therapy up until transfer training. Table 1-2 summarizes the benefits of mind maps as described by Wiig and Wilson (2001). Table 1-2 and Table 1-3 were modified for application to stuttering-cluttering, whereas Wiig and Wilson

(2001), from whom the concepts were adapted, applied them to language intervention.

Children who present with both stuttering and language impairment have an even more difficult time with speech processing than children who stutter but exhibit normal language development (ASHA Supplement, 1999). Leonard et al. (2007), in their study of 200, 14-year-old adolescents with language impairment (LI) that examined the relationships of processing speed to working memory, highlight literature that describes LI children's poor performance on measures of processing speed and memory in comparison to peers. For children with LI-stuttering, mapping that incorporates interesting symbols and cartoons can serve to focus attention, reduce memory load, and simplify abstract concepts related to fluency, attitudes, and emotions.

Mind maps are not the only critical factor. Just as important is the manner in which the clinician uses the mind map to structure therapeutic conversations. Expert communication promotes the acquisition of intelligent behaviors that support improved fluency, attitude, and family and peer relations. The clinician must

Table 1-2. Benefits of Mind Maps

<i>Mental Models</i>	<i>Mind Maps and Organizers</i>
Protect against information overload through filtering and classification of information	Organize structure for teaching and learning to manage complexity
Organize structure to help manage complexity in functioning, learning, and problem solving	Serve as a background or organizing principle that allows a learner to structure and manage complex ideas
Represent a generic ability to place selected items in the environment into a part-whole structure (e.g., pattern, gestalt, script, schema)	Provide a context that allows for quick identification of conceptual and stage-based procedural knowledge needed for reasoning and acting

Note. Adapted from *Visual Tools for Language and Communication* (p. 8), by E. H. Wiig and C. C. Wilson, 2001, Eau Claire, WI: Thinking Publications/Super Duper. Adapted with permission.

learn how to parse the message. Table 1-3 is a summary of the strategies clinicians would use to parse or segment their messages during fluency therapy.

Figure 6-1 in this Manual contains illustrations that can be used to label different behaviors that children must learn to use. These include:

1. Practice or persistence to change the way children talk.
2. Listening to promote comparison of stuttered and nonstuttered speech and to encourage self-monitoring.
3. Precision of thought using graphics and color to focus attention.
4. Precision of language by providing children a vocabulary by which they may discuss their communication.
5. Using prior knowledge through constant review of the prior session and experiences since the prior session.
6. Cognitive flexibility by providing children alternative ways of thinking and consequently planning communication.
7. Metacognition, or children considering the nature of their own thoughts and how their thoughts affect mood and emotion.
8. Metalinguistic awareness and how language and speech can be manipulated to improve communicative effectiveness.
9. Using all senses in various therapeutic sessions with listening, looking, hearing, and relaxation exercises to increase awareness of tension.
10. Reflection, which is related to using prior knowledge. The child analyzes events from previous speaking situations and plans for future speaking situations.
11. Applications to new situations, with emphasis on use of hypothesizing, induction, and analogies.
12. Wonderment, curiosity, inquisitiveness, and enjoyment result from using all of the above-named strategies.
13. Checking accuracy and precision will include analyzing speech samples to determine the amount of fluency, use

Table 1-3. Teaching and Intervention Strategies

<i>Strategy</i>	<i>Definition</i>	<i>Purpose and Benefit</i>
Chunking	Break down concepts	Reduces memory load
Assimilation	Integrate new with existing models for support to	Uses prior knowledge and modify dysfluent patterns
Adaptation	Compare to and modify existing knowledge	Modifies existing knowledge and models to match new concepts
Expansion	Add to existing knowledge and models	Leads to more complex learning
Reduction	Simplify existing models	Abstracts knowledge and forms general models

Note. Adapted from *Visual Tools for Language and Communication* (p. 8), by E. J. Wiig and C. C. Wilson, 2001, Chicago: Applied Symbolix, Inc. Adapted with permission.

of pseudo-stuttering or deliberate stuttering to decrease anxiety, and parent and peer coaching and support.

Additional explanation is provided in Chapter 4 regarding intelligent behaviors and clinician talk to alter stuttering. In conclusion, mediated learning is a teaching strategy that has been broadly influential in educational realms and is a powerful perspective for developing interventions to alleviate stuttering. Therefore, a mediated learning approach has been incorporated into the ST Curriculum to promote efficiency in teaching and learning and clearly delineate for child clients the purposes and rationale of therapy to develop fluency and manage stuttering. Chapter 3 provides a discussion of generalization or transfer training. Moreover, the notion that transfer training begins the first day of therapy is an important assumption explored further in the subsequent chapter.

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Chapter 2

Intervention Guidelines and Transfer Training

Smooth Talking (ST) is appropriate for children 7 to 15 years of age. This approach was developed to target children who exhibit moderate to severe stuttering and who may also exhibit co-occurring difficulties, such as language impairment or speech problems (articulatory or phonological). ST may be used with children who exhibit cluttering or cluttering-stuttering, although the strategies have been implemented primarily with children who stutter. A case study of a child who exhibited a pattern of stuttering-cluttering was presented in the first *Smooth Talking* (2002). As explained in the Introduction, Chapter 4 presents three detailed case studies to demonstrate how this approach may be implemented. Additionally, Chapter 4 represents an adaptation of a three-participant case study article (Radford & Tanguma, 2007).

CLINICIAN PREPARATION

Before implementing ST, clinicians should have completed basic coursework that has familiarized them with terminology and techniques common to fluency and stuttering assessment and intervention. Clinicians must make decisions regarding the therapeutic approach (fluency shaping vs. stuttering modification, or some combination) and choose worksheets and strategies according to the primary approach chosen for implementation. Figure 2-1, Figure

2-2, and Figure 2-3 contain worksheets for confirming a diagnosis of cluttering, stuttering, or the co-occurrence of cluttering-stuttering. Each worksheet has three significant behaviors for each category, followed by specific examples. A check for any one occurrence of a behavior is evidence the behavior is present. A rule of thumb is that all three primary behaviors (designated in *italic*) must be present to confirm a diagnosis. As will be discussed in detail later, these worksheets should be used following a complete assessment.

To benefit maximally from the materials, it is suggested you allow 3 to 6 hours to thoroughly review the Manual, Workbook, the Training DVD (which includes a sample therapy session), and the mediation CD for relaxation training and attitudinal change. If a child has been diagnosed, an additional 2 hours or less may be needed to outline the tentative schedule of session content and activities to be incorporated in therapy. Following this preliminary preparation, a 20- to 30-minute follow-up review by the clinician the day or night before each therapy session should be sufficient. A certified speech-language pathologist (SLP) should implement the ST, although support personnel, parents, and teachers could be involved in particular activities for practice, review, and generalization. In sum, it is estimated that ST can be instituted with dysfluent clients with an average of 10 hours of preparation to review the Manual and other resources and plan for actual implementation.

Behaviors Indicating Cluttering

Client speaks rapidly:

- ☐ Speech rate for rapid periods is one or more standard deviations beyond the average speech rate for age.
- ☐ Child speaks so rapidly, or interjects so many phrases, it is difficult to transcribe.
- ☐ Speech intelligibility is significantly reduced because of the rapid speech rate.

Diagnosis or suspicion of attention deficit or attention deficit hyperactivity:

- ☐ Talks excessively without much concern for listener's engagement in the conversation.
- ☐ Readily initiates conversation; however, cannot maintain a topic, abruptly changes topic, or fails to complete topic.
- ☐ Delayed in learning to read; reading disability or dyslexia.

Extraneous and excessive activity at times:

- ☐ Constant movement and need for reminders to be still during structured activities.
- ☐ Easily distracted by objects, people, or background noise.
- ☐ Extraneous movements of arms or hands or fiddling with objects with excess movements not necessarily coinciding with moments of stuttering.

Figure 2–1. Checklist to Confirm Cluttering Following an Evaluation. Directions: Check all the items that apply. All three behaviors (designated in *italic*) must be present for a diagnosis of cluttering. The behaviors are followed by three examples, only one of which must be present to decide if the behavior is a part of the observed cluttering pattern.

This estimate is for certified SLPs with the appropriate training and clinical experience with stuttering.

A Clinician's Therapy Management Planning Sheet is provided in Appendix C of the Manual. This planning worksheet should be completed as a preliminary to individual education planning in the public school setting. Further, the planning worksheet encourages development of a comprehensive organization of tentative materials and strategies from ST for use with school-age clients who stutter.

For each session, introduce a lesson in one session, practice in that same session, and review the lesson for a minimum of one additional session or until the child demonstrates the desired skill level. Use the mapping techniques described in the lesson and demonstrated on the training DVD regularly. Incorporate cognitive retraining—what Price-Watson refers to as *neurolinguistic programming* (NLP)—after a baseline of stuttering behavior is gathered over three samples (Neurolinguistic Programming Academy, 2006). Preliminary

Behaviors That Indicate a Diagnosis of Developmental Stuttering

Stuttering behaviors observed or reported during speaking and/or reading:

- ☐ Whole word repetitions, part word repetitions, or blocks.
- ☐ Moments of stuttering characterized by tense articulatory postures and/or secondary stuttering features.
- ☐ Significant adult (parent or teacher) reports disruptions in fluency and describes observed dysfluencies as not typical.
- ☐ Stuttering is reported to have developed during the developmental period and is not associated with neurological insult, disease, or emotional trauma.
- ☐ Report or observation that the child fluctuates between periods of fluency and dysfluency.
- ☐ Family history of stuttering.

Relationship between attitudinal and observable behaviors:

- ☐ Child expresses anxiety regarding mild to more severe dysfluencies.
- ☐ Child expresses no anxiety regarding mild to more severe dysfluencies and/or indicates speech is not a concern.
- ☐ Parents or other adults express significant anxiety regarding mild to more severe dysfluencies.

Figure 2–2. Checklist to Confirm a Diagnosis of Developmental Stuttering Following an Evaluation. Directions: Check all the items that apply. Both behaviors (designated in *italic*) must be present for a diagnosis of stuttering. The behaviors are followed by six example behaviors, only one of which must be present to decide the behavior is present.

counseling and identification of the speech behaviors of concern should also precede NLP. Immediately after each session, send an audio-tape or CD recording home with a 5-minute sample of the essential focus of the session for transfer training (more about this later in the chapter). When a new speech behavior is introduced, the clinician should model on tape how the child is supported in using this strategy, as well as providing suggestions to the parents regarding their role as listener-coach at home.

ASSESSMENT

Prerequisite to any intervention planning is comprehensive assessment. Comprehensive assessment is consistent with guidelines for serving children with special needs as mandated by the Individuals with Disabilities Education Act (IDEA; 2004), with Part B regulations relative to preschool to school-age children with disabilities found in the Federal Register, Volume 71, published in August of 2006. The ST

Behaviors That Indicate a Diagnosis of Cluttering-Stuttering

Client fluctuates between stuttering and cluttering:

- ☐ Alternates between rapid, jumbled speech and stuttered speech.
- ☐ Speech rate, when rapid, is significantly above the mean for age.
- ☐ Stuttered speech consists of abnormal dysfluencies, including part word or sound or syllable repetitions, prolongations, or blocks.

Characteristics of cluttered speech:

- ☐ Alternates between rapid, jumbled speech and stuttered speech.
- ☐ Speech rate, when rapid is significantly above the mean for age.
- ☐ Stuttered speech consists of abnormal dysfluencies, including part word or sound or syllable repetitions, prolongations, or blocks.

Characteristics of cluttered speech:

- ☐ Normal or ambiguous dysfluencies, such as word fillers ("I went you know to the store."), nonword fillers ("uh"), phrase repetitions ("Just then, just then, he dropped it."), phrase interjections ("Joe—my best friend—we play all the time—like Joe and I—I told you he's my best friend."), and whole word repetitions.
- ☐ Significantly rapid rate alternated with stuttered speech.
- ☐ Rate of speech interferes with speech intelligibility.

Other observed symptoms:

- ☐ Problems with language or articulation.
- ☐ Attention and activity levels high, possible question of attention deficit hyperactivity or learning disabilities.
- ☐ Problems with reading or handwriting.

Figure 2-3. Checklist to Confirm Co-Occurrence of Cluttering-Stuttering Following an Evaluation. Directions: Check all the items that apply. All four behaviors (designated in *italic*) must be present for a diagnosis of cluttering-stuttering. This checklist is based on clinical experience and published guidelines from ASHA (1999). The behaviors are followed by three example behaviors, one of which must be present to decide the behavior is present.

program does not include instruments for assessment. However, a brief description of the typical protocol for children served by the author is summarized in Table 2-1. Assessment includes: parent-child interview, case history review, hearing screening, administration of the

Table 2-1. Typical Assessment Protocol for Clients Enrolled in ST

<i>Measures</i>	<i>Purpose</i>	<i>Comments</i>
Case history of child/adolescent and interviews of parent(s), child and parents, teacher(s)	Review developmental history, course of stuttering, health, risk factors, such as relatives who stutter and any related problems; determine attitudes and any negative emotions	Comprehensive review for counseling, education, assessment, and intervention
Hearing Screening and Oral Facial Examination	Determine any auditory or motor problems	Refer as needed; modify assessment and intervention as needed
Stuttering Severity Instrument	Standard stuttering measure	For group comparisons
Narrative sample	Assess individual differences and higher-level discourse associated with formal registers and "school talk"	Consistent with ASHA recommendations of two or more speech samples
Lindamood Auditory Conceptualization Test	Assess any difficulty with sound-symbol associations and syllable patterns	Performance correlates with reading and spelling
Goldman Fristoe Test of Articulation or Spanish Articulation Measures	Assess any related articulatory difficulties	Articulation problems may co-occur with stuttering
Clinical Evaluation of Language Fundamentals	Assess any related articulatory difficulties	Language problems may co-occur with stuttering
Test of Nonverbal Intelligence	Determine related cognitive abilities	Nonverbal abilities may or may not be comparable to verbal skills
Optional: Speaking rate	Excessive rate may exacerbate dysfluency	Used to confirm cluttering
Other testing/referral as needed	Rule out neurogenic stuttering or other medical complications	Indicated if stuttering is severe and resistant to behavioral therapies

Stuttering Severity Instrument (Riley, 1994; including picture description, conversation, and a reading sample for readers), a narrative assessment based on a picture stimulus (informal measure, with standard instructions and elicitation procedures developed by the author), oral-facial examination, language screening or assessment with a standard instrument, articulation assessment, nonverbal assessment of intelligence, and phonemic awareness as measured by the Lindamood Auditory Conceptual-

ization Test (LAC; Lindamood & Lindamood, 1979) or a comparable instrument. The LAC has been found to be useful for children who present with significant dysfluency during reading. Dysfluency during reading may be complicated by difficulty with basic word attack skills. The LAC is a measure associated with detecting children's awareness of sound-symbol associations, and the sequencing of sounds into syllables. Performance correlates with reading and spelling abilities. Language

abilities are also assessed. For children with age-appropriate language skills, the conversational sample is used for both speech and expressive language, along with a screening test for comprehension. For children with language impairment or suspected language impairment, a comprehensive assessment is used.

Additionally, parents are interviewed separately from the child, followed by a child interview, parent-child interview, and lastly a teacher interview. Formal and informal measures are available for assessment of attitudes and feelings relative to stuttering. Children who stutter are described as children who may experience negative emotion and increased anxiety regarding stuttering. Subsequently, successful stuttering management not only includes improved speech, but also includes decreased negative emotion and anxiety about speaking. Informal measures might also include having the child draw an illustration of stuttering and explain how it makes him feel. Gather case history information, of course, in advance of parent interview, and use this information for follow-up interview. Birth, development, and health history should be reviewed. Moreover, it is important to determine if any relatives stuttered as children and whether the stuttering currently persists for these relatives or was resolved. Children with relatives who stutter are more likely to stutter because of the inheritance factor.

Typically, speech samples are gathered prior to articulation and language assessment, unless speech and language are moderately to severely impaired. For additional information, the reader is referred to guidelines for stuttering treatment by Special Interest Division (SID) 4 (ASHA, 1999). The SID #4 recommendations are for at least two speech samples—one to obtain the client's speech in everyday use and one sample under standard sampling conditions

that would be held constant across clients who stutter. Additionally, speech rate and voice quality should be determined to distinguish cluttering from stuttering.

ST AND OTHER STRATEGIES

The ST materials can be implemented independently of any other materials or can be used in conjunction with clinician-made materials, other published materials, or prosthetic devices, including delayed auditory feedback (DAF). DAF will be considered in detail later. Clinicians with limited clinical experiences with dysfluent clients are encouraged to take a conservative approach and to implement the ST without variation until very familiar with the materials and strategies. It is strongly urged that therapy be conducted at least twice per week. A series of case studies, both published and unpublished, indicates that child clients have benefited the most from individual therapy, twice weekly, with hour-long sessions, and gradual incorporation of group therapy (Radford, 2002; Radford & Tanguma, 2007; Radford, Tanguma, Gonzalez, Neruccio, & Newman, 2005).¹ The strategies have been implemented in intense summer camps that were structured for 2-hour long sessions, twice weekly, over a 5- to 6-week period (Radford et al., 2005).

SUGGESTED TIMES AND SCHEDULES FOR THERAPY

The ideal time for ST is 60 minutes twice weekly. For children with moderate or more severe stuttering, significant improvement in communication has been observed with 40 or

¹A case study of D, who was followed from the fall of 1997 to the spring of 1999, was provided in *Smooth Talking: A Therapy Program for Children Who Stutter*, published in 2002.

more hours of training (Radford & Tanguma, 2007). This should not be taken to mean that 40 hours of therapy is sufficient for any given client. There seems to be some agreement among researchers regarding the nature of stuttering as a disorder that requires long-term follow-up, and as indicated by the National Stuttering Association (NSA) survey, more than one period of therapy (Hancock, Craig, McCready, McCaul, Costello, 1998; McClure & Yaruss, 2003; Yaruss & Quesal, 2003). However, Special Interest Division 4 on Fluency and Fluency Disorders (SID 4; ASHA, 1995) has recommended that clinicians should continue treatment long enough for effective change, but should not continue when there is no longer any further improvement. An important question is, What constitutes effective change? My approach to describing effective change has been to frame the plan of treatment (also known as the individual education plan in school settings) in terms of Feuerstein's model of cognitive development adapted to stuttering (see Figure 1-1, Chapter 1), Special Interest Division 4 guidelines, parent-child priorities, policies as established by IDEA (reauthorized in 2004), and state-level benchmarks or performance indicators for special education and regular education in the subject areas of language arts and reading (for example, Arkansas Department of Education, 2002; Mississippi Department of Education, 2007). Recent information shared at ASHA Annual Conferences also highlight the necessity of how No Child Left Behind has had an impact on services to children who stutter. Revisions to IDEA in light of No Child Left Behind specify that children with special needs have access, where possible, to regular education. This mandate requires the SLP to consider children's and adolescents' abilities to manage communication successfully in the classroom as well as during extracurricular activities. Further, an area for continued research is the utilization of prosthetic devices in the school setting.

PROSTHETIC DEVICES AND MEDIATED LEARNING

For children with chronic stuttering and a history of unsatisfactory therapy results, it is essential to provide an immediate experience with fluency and to build from that base. This author's current assumption, based on case studies to date, is that an effective therapeutic approach is to provide children experience with fluency while simultaneously providing experiences to desensitize them to stuttering, lessen the trauma of failed communication, and encourage motivation to continue in therapy. DAF is well established as instrumentation that can result in immediate fluency for some individuals (Stuttering Foundation of America, 2007). Portable DAF devices are available through several companies that offer units (i.e., Casa Futura Technologies, KayPentax, Super Duper). See the Radford et al. study (2005) that incorporated DAF with mediated learning for stuttering management. A desktop DAF unit produced by Casa Futura was used in this particular study. The unit by Casa Futura includes earphones and the DAF unit. Delay, ranging from 0 to 250 msec, in 10 msec increments can be imposed. In recent unpublished work, I have used the Facilitator, developed by Dr. Daniel Boone in conjunction with Kay Electrics, which is now Kay Pentax. A delay ranging from 0 to 500 msec can be imposed. The advantage of the Facilitator is portability. It can be worn with a fanny pack for mobility and the fanny pack comes with the unit. Further, the Facilitator incorporates five modes of auditory feedback, including real-time voice amplification, speech-range masking, immediate looped auditory feedback, and metronomic pacing, as well as DAF.

For older children and adolescents who do not achieve successful management after an extended period with behavioral approaches, one might consider DAF. Additional study is

needed to establish guidelines for decision making about incorporating DAF and other frequency altered auditory feedback with children. I would suggest that DAF be used with children ages 10 years and older who have had limited success with other therapeutic approaches. I would also recommend that DAF be used in conjunction with counseling to reduce anxieties about stuttering, improve the child's understanding of his own pattern of stuttering, and encourage awareness that the child is "more than his stuttering." Moreover, the clinician should be consistent in supporting the child's incorporation of DAF in situations structured for positive communication encounters. Consider carefully the "culture" of the particular classroom in which DAF might be introduced and whether the teacher can be influenced to be an advocate for the child or adolescent and an encourager of DAF use.

SPEECH NATURALNESS AND FLUENT SPEECH

Ingham, Warner, Byrd, and Cotton (2006) describe normal fluency as speech that is characterized by: (a) little dysfluency, (b) a normal utterance rate, (c) natural sounding quality, and (d) minimum speaking effort in most situations. One can presume that children, like adults, will be less satisfied with therapeutic strategies that result in "unnatural speech." Yet unnatural speech may be a strategy to consider when working with children or adolescents who present with chronic and moderate to severe stuttering. A reasonable guideline is to use unnatural speech (for example, metronome for establishing rate, or slowed rate induced under DAF) in specific contexts. Pro-

vide simple and direct explanations regarding why the approach is being used. Assure children and adolescents regarding the circumstances under which the device will be used and what the anticipated benefit is. Also, remind children and adolescents that they will have a choice about whether to use it elsewhere—if at all. With the popularity of personal listening devices, use of a prosthetic device is currently less stigmatizing, as it tends to blend in with other listening devices. A sample dialogue about DAF use follows that essentially incorporates clinician talk to encourage listening, cognitive flexibility, fluency shaping speech strategies, reflection, practice, and persistence²:

Clinician: "While you are talking with the earphones on, I will be changing the settings on the DAF so that you hear your voice, but it will not be heard right away. You will hear your voice coming back more slowly than you are actually talking. Don't try to keep talking at the same pace. Slow down so that you can hear yourself talking. We will use this exercise to see how it changes your talking. We will only use the DAF here in your individual sessions, until you feel comfortable using it other places later on. Some people who have used DAF find that it is easier to smooth their speech while using the DAF. Let's see if it works for you. We may need to practice more than once with this."

Table 2-2 provides a quick start guide for incorporating DAF. This is a modification of DAF approaches as discussed by Bruce P. Ryan (2000) and others. The child uses DAF in 5-minute intervals during therapy, with just enough delay to induce prolonged speech without stuttering (100% fluency). Various worksheets might be used from the ST Workbook or word lists or stories from Appendix B of

²Revisit the thirteen intelligent behaviors and sample clinician utterances to promote such. See Table 1-1 in Chapter 1.

Table 2–2. Incorporating DAF with Mediated Learning

<i>Session</i>	<i>Description</i>	<i>Desired Outcome</i>
1	Initiate DAF in increments of 0, 30, 90, 120, and 200 msec, changing the delay every 60 to 90 seconds until reaching the maximum delay that induces 100% fluency (for clients served, has generally occurred between 200 and 250 msec)	5 minutes of fluency at maximum delay, at highest level of speech production Ideal: conversation
2	Begin DAF at maximum delay associated with 100% fluency	10 minutes of fluency at maximum delay, at highest level of speech production Ideal: conversation
3	Begin DAF at maximum delay associated with 100% fluency	30 minutes of fluency at maximum delay, conversational level
4	Counseling session to assess progress; prepare for transfer training; sample recording of 5-minute segment to share with parent(s) and teachers	Preparation for transfer training for use in regular classroom
5	Decrease DAF in 10 msec increments until minimum delay necessary to maintain fluency is determined	30 minutes of fluency at minimum delay necessary to maintain fluency
6	Simulate classroom situation, ideally with teacher participation for part of the session, which will involve reading or answering questions while under DAF	Preparation for transfer training to classroom
7	Use of DAF during all classes requiring discussion or oral reading; not recommended during PE or other rigorous activities	Participation in all oral and reading activities
8+	Monitor consistent use of DAF in regular classroom	Transfer and maintenance

this Manual. For children with age-appropriate language skills, begin with DAF during conversation. For children with language difficulties, start with a more structured speaking task (word lists or pictures) that is reduced in linguistic complexity and does not require spontaneous generation of utterances. Advance from memorized utterances (such as a Boy Scout Oath, lyrics to a favorite song, or other passages the child may have memorized) to conversation. Once the child can maintain

100% fluency under DAF at minimum delay as determined by your measuring fluency under different delay conditions, begin the task of increasing the amount of time DAF is used in therapy. Counsel the child about using the DAF during oral activities in the regular classroom. Role-play in therapy is recommended, followed by a trial period in the classroom that includes the SLP assisting the child to determine if fluency levels are transferring. In districts that include support personnel, an

SLP assistant might also be used in the classroom to monitor effective incorporation of DAF. It is recommended that the DAF be used continuously during a period likely to involve high levels of talking. By establishing a set routine when it will be used, student motivation for consistency is less likely to wane. Moreover, if the teacher has received sufficient support to accept the child's use of the device and to pay attention to improvement, maintenance and increased use independent of the SLP is more likely.

The case study I conducted in 2005 (Radford et al.) describes a child who adapted well to DAF and achieved improved fluency. TG, the 13-year-old whose case is presented in Chapter 4, rejected DAF as an option during a trial period with the device.

COGNITIVE MEDIATION— RESTRUCTURING OR NLP

In this manual, two listening tracks are included on a CD that is provided. The tracks include Track 1 for children 7 or 8 to 11 years of age and Track 2 for children 11 years and older. I have used the track for older children in four controlled case studies, with two of those cases provided in Chapter 4. After a baseline of stuttering collected over three sessions and several sessions for identification and counseling, as well as work with strategies to improve fluency, the track was introduced. Exposure to the messages about stuttering and time to think about stuttering were associated with positive changes in fluency. The listening was used in conjunction with behavioral therapies and counseling about negative attitudes and emotions. The very act of leaving the child in a safe, private place to think about his own stuttering is a step toward changes in thinking and engages the child in an activity to foster transfer training and strategies to promote appropriate changes in communication

RECORDING SAMPLES OF THERAPY TO SHARE WITH PARENTS

Another important aspect of transfer training is the incorporation of recording a portion of the session (5 minutes or less) that captures the child's or adolescent's successful practice of a new strategy to manage stuttering. The CDs or audio cassettes can be sent home and serve as wonderful models to highlight successes as well as provide parents a model of how to best interact with their children verbally. Without my nagging, parents often tell me that the recordings have shown them new ways of supporting their children's communication efforts.

The 5-minute sample recordings are sent home immediately, usually from the first day of therapy, along with a map that visualizes the important details of the session. I follow up consistently with my parents to determine if they are listening to the recordings. Maps are better than lengthy notes and one cannot use a more personalized evaluation than a recording of the child during a session. Confidentiality can be maintained by using stiff CD mailers with return information listed on the CD. Issues about the recording should typically be worked out in advance when sharing details with the parent about evaluation outcomes, development of a plan of treatment, or modification to the plan of treatment.

Some cautions are in order about the recording:

- Always record at the end of the session after the child has had sufficient time to practice a given strategy.
- Role-play with the child before making the recording for the parent(s). Greet the parents at the beginning of the recording. Show your client in his best light.
- Provide a simple description of what parent(s) will hear in the fewest words

possible without sacrificing a clear explanation. Keep the recording brief—5 minutes or less.

- Always announce at the end of the recording that this is the actual end of the message.
- Provide a brief sentence or two to end the sample.
- Remember the importance of modeling for the parents effective ways of interacting with the child and supporting his communication without nagging.

Messages I typically emphasize on the recordings at different stages of therapy are:

Message 1: “You used new ways of talking successfully today; remember, when you are in different situations, you may still stutter. If you criticize yourself or are impatient with yourself, that will probably not help you use the strategies. During those times, give yourself a break; let’s talk about it together the next session.”

Message 2: “You are more than stuttering. Consider all the things you do well and the things you do not do so well. Just like somebody doesn’t choose to wear glasses (they need them because of poor eyesight), for example, you did not choose stuttering. Therefore, sometimes, like wearing glasses, stuttering can be a “pain.” But it is not your fault.³ We are all different.”

Message 3: “Hmm, so you are getting ready for a vacation or holiday. You may see some relatives who help too much. They may interrupt you or finish your sentences for you if we don’t prepare them to act in a different way before they start old habits that won’t help you with your new ways of thinking and talking. Let’s talk about some things that Mom and Dad could share with them at the beginning of the visit or just before they come.”

These are examples of a few critical messages. Additional messages are framed to address the child’s experiences in the classroom. Further, teachers should also be encouraged to listen to the therapy samples. Once every 2 weeks may be a reasonable period for most regular teachers, particularly if an SLP meets with the teacher and shares the recording during that time with the teacher.

THOUGHTS ON TRANSFER TRAINING OR GENERALIZATION

Transfer training begins the first day of therapy and not some time in the distant future. I immediately begin the process of transferring a strategy to another context. The recordings and maps are scaffolding strategies that have proven successful for me in the process of transfer. To set a tone for immediately transferring new ways of thinking and talking, children receive a follow-up postcard or letter from me following their first day of therapy. This approach is inspired by the influence Feuerstein’s work (2003) has had upon this clinician’s objective to “infuse self” in as many day-to-day crises as possible to establish a new way of approaching the challenge of communication for clients who stutter.

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³In this illustration, casual conversation is used. This is why *but* is used in this context.

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Chapter 3

Suggested Therapeutic Approaches

Following completion of a thorough assessment and checklists to confirm a diagnosis (see Figures 2-1, 2-2, and 2-3 in Chapter 2), the clinician's next task is to determine a therapeutic approach. For more detailed information and general review purposes, the reader is referred to Guitar (2005), Ryan (2000), and other materials accessible via Stuttering Foundation of America. Classic works that I continue to recommend are Dell (1996) and Gregory (1986). A training DVD, entitled "Basic Skills" (Stuttering Foundation of America, 2007), is available that is comparable in topic outline to Radford (2002). However, this later work has the advantage of clinical demonstrations presented by various clinicians practicing in the United States and Great Britain to illustrate actual therapeutic strategies similarly discussed in *Smooth Talking* (Radford, 2002). The reader is also referred to the American Speech-Language-Hearing Association (ASHA) Multicultural Preschool Project (1995) for a review of issues related to fluency treatment among the major racial and ethnic groups in the United States. See also an article by Robinson and Crowe (1998), regarding cultural considerations for African American clients and their families.

CONTROVERSY ABOUT THERAPY TO REDUCE STUTTERING

There is controversy regarding therapeutic approaches to address stuttering. I will digress

briefly to discuss two recent and interesting articles to illustrate the controversy. Webber, Packman, and Onslow (2004) of Sydney, Australia, examined the effects of self-modeling on three subjects, 22-year-old, 29-year-old, and 17-year-old males. One adult and the adolescent subject exhibited moderate to severe stuttering. The other adult demonstrated mild to moderate stuttering. The adolescent was also described as bilingual, speaking English and Bengali. The method was a single subject withdrawal design. Three-minute samples of the subjects' speaking were edited to remove all stuttering. Subjects watched the edited videos of themselves prior to a speaking session. Investigators encouraged subjects to speak as they had spoken on the videotape. The adult who exhibited mild stuttering experienced a reduction in stuttering; there was no change in the other two subjects. The authors concluded that this is laboratory evidence that self-modeling can ameliorate stuttering. However, a difficulty with this study is the fact that the adolescent was bilingual. No discussion of language dominance was provided. Therefore, we are left to wonder if the adolescent was equally proficient in English and Bengali. Language interference may have influenced the outcomes for this subject. If we compare just the two adult males, it seems that self-modeling appears to be more effective for mild to moderate stutterers than moderate to severe stutterers.

Saltuklaroglu and Kalinowski (2005) examined the effectiveness of therapy for childhood stuttering. The authors surveyed school-based

therapists in North Carolina about recovery among their child clients who stuttered. Over a 3-year period, therapists reported a 13.9% recovery rate. The authors argued that it was difficult to distinguish natural recovery from recovery accelerated by treatment. The authors concluded that therapy does little to boost the recovery in incipient stuttering and that behavioral methods alone appear inadequate for inhibiting stuttering. They describe stuttering as highly amenable to short-term symptom reduction but resilient long-term treatment because patients do not have full control. The authors go on to establish the case for altered auditory feedback (AAF) delivered via electronic means to replicate choral speech as the most effective method for establishing fluency.

I conclude that AAF may be a necessary and long-term solution for some clients with severe and chronic stuttering. However, my research has focused exclusively on older children and adolescents who have not demonstrated natural recovery and exhibit moderate to severe stuttering not characterized by any period of short-term symptom reduction from prior therapy provided in public schools, to the best of my knowledge. My conclusion is that behavioral methods combined with mediated learning do result in increased fluency, improved attitude, and decreases in negative emotion.

A number of factors may contribute to lower recovery rates for stuttering in the school setting; I have addressed such issues in earlier work (Radford & Tanguma, 2007). To summarize, factors may include limited time for therapy in school settings, the clinician's level of competence and confidence for addressing stuttering, and services provided in mixed-disability groups, which limits time for intensive therapeutic interactions. Large caseloads combined with strict guidelines for service provision may also lead to limited time for counseling with parents and teachers, thus limiting a vital source of support and generalization.

Numerous researchers agree that stuttering is a long-term problem (Guitar, 2005; Snyder,

2006; Webber, Packman, & Onslow, 2004). FAF and DAF are strategies that do reduce stuttering effectively and significantly; yet these approaches may not be suitable for all clients—the same criticism as that is raised for behavioral therapies (Stuttering Foundation of America, 2007). To borrow Yaruss's words, "One size does not fit all" (Yaruss, 2003). ST, which is based on a broad-based approach to stuttering intervention, is a viable option for older children and adolescents. Much depends on the clinicians' skill in implementing the strategies suggested herein.

TWO GENERAL APPROACHES TO THERAPY

This book, like Radford (2002), was devised to complement the two major therapy approaches most often used in the treatment of fluency disorders: stuttering modification therapy and fluency shaping therapy, discussed by Peters and Guitar (1991) and outlined in Table 3-1. The purpose of stuttering modification is to help the stutterer modify moments of stuttering. The purpose of fluency shaping therapy is to increase systematically fluent responses until they replace the stuttering. As described earlier in Chapter 2, DAF may be employed in a fluency shaping approach to establish fluency quickly. Once fluency is established, clinicians help the client use fluent speech in different speaking situations for increasingly longer periods until generalization to independent use.

In previous years, stuttering modification approaches have been distinguished from fluency shaping based on the exclusion of emphasis on attitudes in fluency shaping approaches (see Peters & Guitar, 1991). In a modified approach to fluency shaping, ST includes counseling strategies (particularly the CD for cognitive mediation or NLP) in stuttering modification approaches and fluency shaping approaches. Just as children need aural habilitation to adjust to hearing aids and other devices, chil-

Table 3-1. Two Major Therapy Approaches

<i>Stuttering Modification Therapy</i>	<i>Fluency Shaping Therapy</i>
Modify moments of stuttering	Enhance fluency
For confirmed stutterers:	No emphasis on attitudes
Reduce fear of stuttering	
Eliminate avoidance	
Includes basic techniques:	Basic and advanced techniques:
Pseudostuttering	Continuous phonation*
Easy stuttering	Altered rate*
Bouncing and cancellation	Altered production length*
	Altered production complexity*

*Note. With or without DAF, metronome, or masking noise.

dren and adolescents need support to adjust to strategies and devices to establish fluency. Middle school children are especially sensitive to not "sticking out."

A GENERAL GUIDELINE ABOUT THE NUMBER OF STRATEGIES TO INCLUDE

The child's maturity level, language abilities, and stuttering severity should influence the approach and associated strategies for fluency. Children with specific learning disabilities, attention deficit hyperactivity, or language disorder may benefit from a limited number of strategies to learn. A fluency shaping approach that includes continuous phonation might be appropriate to limit memory load. For children and adolescents with age-appropriate language, strategies from stuttering modification and fluency shaping might be incorporated, with one strategy introduced per session during conversations and reading, progressing to use of several strategies under different conditions.

After the child has acquired some skill in using the given talking strategy, talking activi-

ties can be devised to allow the child practice in self-selection and incorporation of multiple strategies. An activity that is effective at this level is to have the child use a map with the strategies illustrated. During a conversation, children are encouraged to purposely stutter and point to a strategy on the map they will use for immediate repair of the stutter. After several sessions of practice, the child and clinician can reduce strategies down to those that are most productive. This may include one to three strategies, eventually, that are used routinely.

Chapter 5 includes sample goals for stuttering modification and fluency shaping, with some discussion of modifications for public schools.

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Chapter 4

Three Case Studies

The following are adaptations of case studies originally published in *ECHO*, the on-line journal of the National Black Association of Speech-Language-Hearing, during the fall of 2007. The adaptations include additional explanations and sample forms used with the children to provide clinicians detailed examples regarding implementation. Review the cases as well as revisit the training DVD for *Smooth Talking*, which includes a sample therapy session for TG.

CASE STUDY 1

TG was a 13-year, 7-month-old Hispanic male whose primary language was English. He had received 4 years of speech therapy in public schools. He was referred to the ST program by his public school speech-language pathologist (SLP). TG was enrolled in regular classes, reporting that his favorite subject was art. He was diagnosed with attention-deficit hyperactivity disorder and was on Adderall, 30 mg, once per day. His grades were average; however, parents expressed some concern about his reading skills. With the exception of speech therapy, TG was receiving no special education services.

Both parents were interviewed. They indicated that TG's stuttering had increased since his enrollment during the current year in a new school and a move to a new home. The parents also expressed concern that TG's younger sister was teasing him about his stuttering and that

some teasing from other students had occurred at school. During a separate interview, TG confirmed that he was being teased at school and indicated that he would like to run away. During periods of stuttering, he was observed to cover his mouth with his hand. He avoided eye contact and generally maintained a slouched posture without smiling. He could not explain his stuttering behaviors or describe strategies he had learned at school that helped him to maintain fluency or work through a stuttering moment at home. Along with the major adjustments of a new school and home, TG's father was dealing with chronic illness, resulting in changes in family lifestyle and finances, as he was no longer able to work. Dad expressed significant concern regarding TG's stuttering and reported that he had also stuttered as a child but had improved with age. However, his concern was that his son was continuing to stutter at a later age than he had. Dad and Mom described episodes of severe stuttering at home, during which TG had facial tremors, excessive eye blinks, blocks, and part-word repetitions.

TG presented with a complex interaction of all seven distal etiological factors associated with stuttering (Figure 4-1) as well as what appeared to be maladaptive learning experiences for managing his stuttering. The parents were encouraged to seek counseling and other community supports for themselves as they dealt with the factors impeding their functioning as a couple and as parents. Further, parents were counseled that therapy would be a

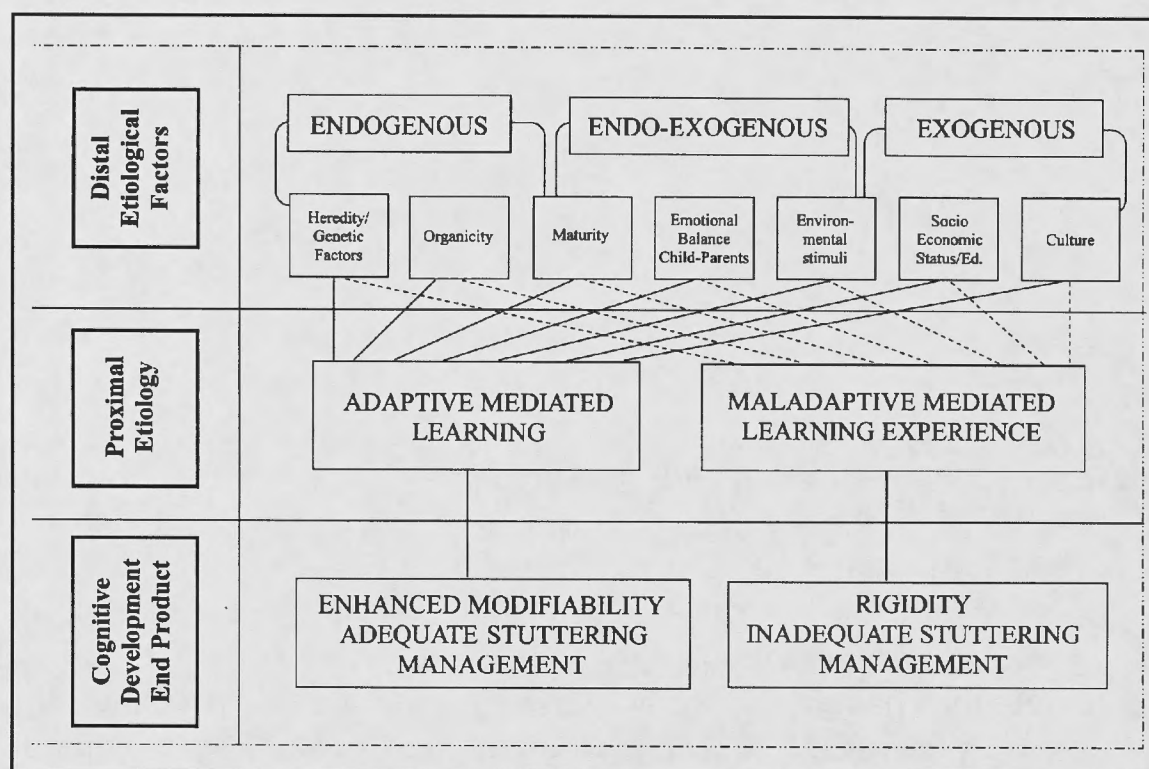


Figure 4-1. Distal and Proximal Determinants of Differential Cognitive Development (Modified for Stuttering)

family commitment and that it would be helpful if they watched each therapy session and prepared to participate as time progressed. Pre- and post-test measures are summarized in Table 4-1.

General Procedures

Therapy was 42 hours of direct intervention, delivered over the course of 10 weeks. TG was seen individually for about 3 hours per week and with JE (Case Study 2) for a combination recreational-talking activity at least 1 hour per week. With excellent facilities available on a university campus, TG had the opportunity to learn and teach how to play the game of pool. He participated in one-on-one basketball and played some board games that addressed self-esteem. An integrated approach to training was implemented involving TG's use of slow rate, reduced syntactic complexity, and preplanning

for talking and reading. Stuttering modification consisted of TG using the techniques of negative stuttering practice (bouncing), pullouts, and cancellation at the word, phrase, sentence, and conversation level to reduce and/or eliminate stuttering.

Along with traditional training, talking homework assignments were prepared each session for TG, his parents, and sister. At first, the family was provided simple word puzzles to do and talk about, with Mom and Dad shown how to reinforce TG's talking strategies. In addition, TG and his parents were provided an audiotape to listen to during their ride home from the clinic each session that emphasized the talking strategies that were used during a given session. The family received at least one phone call at home per week to check on TG's progress. In addition, TG was mailed a letter the first week of therapy welcoming him to the session and reminding him that we were determined to help him learn new ways to be suc-

Table 4-1. Pre- and Post-Treatment Data for TG, Age 13 Years, 7 Months

<i>Measure</i>	<i>Pretest Score</i>	<i>Post-Test Score</i>
SSI		
Frequency Score	16	2
Duration	8	4
Physical Concomitants	5	2
Overall	29	8
Percentile	83	4
Severity Rating	Severe	Mild
Dysfluency Index		
	Pre-NLP	Post-NLP
Uncued Sample 1	20/214 (9.3%)*	2/483 (.41%)
Uncued Sample 2	33/178 (18.54%)	
Uncued Sample 3	16/214 (7.47%)	
Cued Sample 1	18/241 (7.4%)	1/576 (.17%)
Cued Sample 2	8/139 (5.7%)	
Cued Sample 3	2/229 (0.87%)	
Lindamood Auditory Conceptualization Test	87	82
Test of Nonverbal Intelligence-3		
Raw Score	15	26
Quotient	82	102
SEM	4	4
Percentile Rank	12	55

*Note. The Dysfluency Index is calculated by total number of dysfluencies divided by the total number of syllables.

cessful with talking. Figure 4-2 is a copy of the sample letter that was mailed to TG.

Each week, the required time for the family and TG to use his new techniques was increased. During Week 2, TG and his parents had to maintain his talking strategies for at least 1 hour following dismissal from therapy. During the second week, the strategies had to be used for at least 2 hours in the evening each day, with weekends off. During the third week, TG had to use his talking strategies all

evening until bedtime (about 5 hours per day). During the fourth week, TG was encouraged to start using his strategies at school. Clinicians made two school visits during the transfer-training phase to observe TG talking in class. No continuous data collection was done in the home or school setting. However, parents were asked to make a note regarding whether TG was able to stutter in a milder way, if he was fluent, or if he was having difficulty reducing stuttering or talking fluently. By the



Figure 4-2. Sample Letter Mailed to TG Following the First Therapy Session.

end of the 10-week period of therapy, TG was encouraged to use his speaking strategies for all waking and talking periods of the day. See pages 1 to 3 and 5 from TG's End-of-Term Report in Figure 4-3, Figure 4-4, Figure 4-5, and Figure 4-6. The figures provide a listing of all goals, the schedule for neurolinguistic programming (NLP)—what I refer to as cognitive mediation—and recommendations for follow-up. The specific workbook pages used with TG, as well as word lists from Radford (2002), are described.

To influence the attitudes and negative emotions that TG was experiencing, time was

spent each session discussing his feelings. A formal relaxation program as shown in Figure 4-5 was used with a NLP compact disk (CD) specifically designed to influence the thinking of stutterers (Price-Watson, 2004). TG participated in the NLP in 3-week rotations, with 3 weeks on, 3 weeks off, and 3 weeks on. TG was left alone in a room with dim lights to relax on a couch while he listened to the CD. Parents could both see TG and hear the CD from an observation room. Parents reported that hearing the CD gave them new insight about what TG might be feeling and helped

END OF TERM REPORT

NAME: [REDACTED]	DATE OF REPORT: May 12, 2005
ADDRESS: [REDACTED]	THERAPY PERIOD: 02/07/05 to 05/ 9/05
	NO. OF SESSIONS: 28
DATE OF BIRTH: 10/08/91	NO. OF ABSENCES: 3
REFERRAL: Parents	STUDENT CLINICIAN(S): Nora Gutierrez, B.S. Adriana Limas, B.S.
	SUPERVISOR: N. T. Radford PhD, CCC/SLP

DIAGNOSIS:

- Fluency

STATEMENT OF PROBLEM AT BEGINNING OF THERAPY PERIOD:

[REDACTED] is a 13-year, 7-month-old Hispanic male whose primary language is English. For the past 4 years, [REDACTED] has been receiving public school services for his disfluencies. [REDACTED] was brought to the [REDACTED] Speech and Hearing Clinic because no improvement had been seen for the past 4 years. He was referred to the ST Program by Ms. [REDACTED] a speech therapist who works with [REDACTED] at [REDACTED]. [REDACTED] was evaluated February 7, 2005. This included a parent interview, with both Mr. And Mrs. [REDACTED] present. [REDACTED] has a younger sister who does not receive speech therapy services. Parents report that [REDACTED] has difficulty with reading. He is in all regular classes and his favorite subject is art. [REDACTED] is diagnosed with Attention Deficit Hyperactive Disorder and currently takes Adderall 30mg once per day.

Parents are concerned that stuttering has increased since his enrollment at [REDACTED] and their move to a new home. They report a normal sibling relationship between [REDACTED] and his sister. However, at the beginning of the semester, in February, the parents also expressed a concern about [REDACTED] sister teasing him by imitating his stuttering. Strategies were discussed to lessen or eliminate this type of teasing. Mr. [REDACTED] reports that he also stuttered when he was [REDACTED] age, but overcame it with practice. Mrs. [REDACTED] reports a normal pregnancy and delivery. Developmental milestones were accomplished at expected ages. The most significant issue has been with developmental stuttering.

[REDACTED] was also interviewed on 2/07/05. He reported concern about his stuttering, embarrassment, and a desire to run away when stuttering occurred. He unconsciously covered his mouth during moments of stuttering during the initial interview. He reported a desire to participate to improve his fluency.

Figure 4–3. Page 1 of TG's End of Term Report.

them to consider how to support him at home. Modeling is an important strategy that influences both parents and children. Clinicians do have certain constraints, dependent upon their service context. Yet it is important not to lose sight of creativity and ways to model for parents and children and provide parents an opportunity to observe their children. This is true even from late school age into adoles-

cence. ST is reflective of that belief. Every opportunity is sought to provide a context for parents and children to interact.

Individual Therapy Sessions

At the beginning of each session, whether preceded by NLP or not, a 5-minute uncued and a

██████ was diagnosed with a Fluency Disorder, spring, 2005 at the University of ██████. He has been receiving fluency therapy services at the University ██████ Speech and Hearing Center since February of 2005.

GOALS:

1. **Long Term Goal:** The client will reduce or eliminate stuttering using fluency shaping and stuttering modification procedures in clinic, home, and school.
 - a. **Short Term Goal:** The client will orally describe his own pattern of disfluency and complete a word association map that labels the behaviors. **Goal Mastered 2/28/05.** ██████ described his stuttering as bumpy with repetitions and prolongations.
 - b. **Short Term Goal:** The client will identify disfluent moments and name the type of disfluency. **Goal Mastered 2/28/05.** ██████ used a word association map to identify disfluent moments and disfluency type. Disfluency types included blocks, repetitions, and avoidance. During this session, ██████ noted that he stuttered at school with his friends and teachers. He also noted that he stuttered when he was upset and excited at home.
 - c. **Short Term Goal:** The client will identify various disfluencies when provided with a video or audio sample of various disfluent speakers. **Goal Mastered 2/28/05** ██████ is able to identify various disfluencies including blocks, repetitions, and prolongations. He is also able to identify his type of disfluency after the stuttering moment.
 - d. **Short Term Goal:** The client will identify moments of tension when provided a model, audio, or video samples to demonstrate muscular tension associated with disfluent speech. **Goal Mastered 2/28/05.** ██████ is able to identify moments of tension in his hands and facial muscles. ██████ is no longer tensing facial and body muscles during the production of speech.
 - e. **Short Term Goal:** The client will demonstrate production of variable intensities and pitch ranges during speech production. **Goal Mastered 2/28/05.** ██████ was able to identify and use a slow rate and fast rate, loud and soft intensities, and a high and low pitch during the production of speech. Words, sentences and paragraphs were used from the Smooth Talking Clinician manual to exhibit these behaviors.
 - f. **Short Term Goal:** The client will describe secondary stuttering features and habits that interfere with fluency and make it hard for listeners to pay attention to the client. **Progress Ongoing.** ██████ secondary stuttering features include speaking in a soft voice, mumbling, putting his hands over his mouth or under his chin, and slouching. ██████ is correcting these behaviors by keeping his hands down, sitting up straight, speaking louder, and maintaining eye contact with minimal redirection from the clinician.

Figure 4—4. Page 2 of TG's End of Term Report.

5-minute cued speech sample were taken to calculate the degree of fluency TG had achieved and to monitor his speech rate and vocal intensity (speaking softly was a strategy he used unsuccessfully to control his stuttering). Cued samples consisted of clinicians reminding TG to use his techniques whenever a stut-

tering moment occurred. During the uncued sample, TG was provided no reminders. The two types of samples were alternated each session to avoid order effects. Further, this strategy allowed clinicians to determine when TG began to take more responsibility for working through his own stuttering or using fluency

- g. **Short Term Goal:** The client will demonstrate hard stuttering in contrast to easy stuttering when provided with a model. **Goal mastered 3/16/05** [redacted] is able to demonstrate hard and easy stuttering upon command.
 - h. **Short Term Goal:** The client will demonstrate use of strategies to modify stuttering at the word, phrase, sentence, and conversation level when role playing. **Goal mastered 3/28/05** [redacted] is able to use strategies including bouncing, light contact, continuous phonation, pull outs, and cancellation during speech production of words, phrases, sentences, and conversation. This is evident in [redacted] speech samples from date 3/28/05 on. He averaged close to 100% fluency throughout the remainder of the therapy period through the use of these strategies.
 - i. **Short Term Goal:** The client will demonstrate use of strategies to modify stuttering when talking with different people in a least three different situations. **Goal mastered 4/18/05** [redacted] is able to use strategies to modify stuttering when talking with different people. [redacted] had a conversation with another client while playing pool, he asked a passerby for directions, and ordered a pizza on the telephone. [redacted] used strategies in all three situations.
 - j. **Short Term Goal:** The client, assisted as needed by the clinician, will develop strategies for maintaining fluency (smooth speech) at home, school, and in the community. **Goal mastered 3/30/05** [redacted] and the clinician discussed stuttering moments at home, school, and the community. [redacted] said that he would use his learned modifying techniques to maintain fluency. [redacted] also used "Ground Rules for Staying Fluent" taken from "Self Therapy for the Stutterer" published by Speech Foundation of America.
2. **Long Term Goal:** The client will participate in a neuro-linguistic program to help him relax and become more fluent.
- a. A neuro-program was instituted based on 3 weeks on, 3 weeks off, 3 weeks on, 3 weeks off.
Goal mastered [redacted] participated in a neuro-linguistic program to help him relax and become more fluent. The program was used on a 3 weeks on, 3 weeks off rotation.

Periods of Neuro-linguistic program

Weeks on: February 21 – February 23

February 28 – March 2

March 14 – March 16

March 21 – March 23

Weeks off: March 28 – March 30

April 4 – April 6

April 11 – April 13

Weeks on: April 18 – April 20

April 25 – April 27

May 2 (Absent) – May 4 (post testing)

Figure 4–5. Page 3 of TG's End of Term Report.

shaping techniques. Figure 4–7 is an early lesson plan that was developed for TG.

Board games, card games, word puzzles, worksheets from the ST program (Radford,

2002), and a personal journal were used in the therapy sessions. After the two speech samples were taken at the beginning of the session, TG would count his own total words and total

RECOMMENDATIONS:

1. It is recommended that [REDACTED] return after July 5 for the initiation of maintenance training to monitor fluency.
2. It is recommended that [REDACTED] continue to receive public school services.
3. It is recommended that [REDACTED] continue at the Fluency Clinic to maintain a high level of performance.
4. It is recommended that a copy of the report be mailed to the parents of [REDACTED]
5. It is recommended that a copy of the report remain at the [REDACTED] Hearing Center while [REDACTED] is an active client.
6. It is recommended that Ms. [REDACTED] be allowed to forward a copy of the Annual Progress Report to Dr. Radford to document [REDACTED] progress in school-based therapy.

Figure 4–6. Page 5 of TG’s End of Term Report.

Therapy Protocol

Client: T [REDACTED]

Clinicians: Adriana Limas, B.S.
Jacklin R. Magallan, B.S.

Week Of: February 21, 2005

Monday, February 21, 2005

Objectives:

Client will demonstrate 100% fluency during a 5-minute cued speech sample involving story narration when shown a picture to describe. Fluency strategies will include: continuous phonation, light contact, and cancellation.

1. Uncued Speech Sample

- The clinicians will ask the client what he did at school that day and he will have to tell a 5-minute story. During this time the clinicians will be recording a sample in order to determine his dysfluency percentage.
- During the uncued speech sample, no reminders, teaching techniques. Or reinforcement will be used.

2. Cued Speech Sample

- The clinicians will provide the client with a picture to tell a 5-minute story. The clinicians will incorporate continuous phonation, light contact, and cancellation. The clinician will provide visual cues of the techniques. During stuttering moments the clinician will use mild negative reinforcement. For example, “Stop.” “You had some hard speech on the word _____” “Say it again your new way”. The clinician will record how many time the client was cued.

Objective:

Using the ST illustrations in the Student Workbook, the client will review how he can change the way he talks through rate, intensity, and pitch.

1. Changing the way I talk: Rate, Intensity, and Pitch

- The client will read sentences using fast, slow, and whisper using page 20 of the ST client workbook.

Figure 4–7. Copy of Early Lesson Plan Developed for TG.

dysfluencies and calculate the percentage of fluency for each sample. He was encouraged to count aloud as an easy, automatic warm-up speech task that always resulted in 100% fluent speech. After the sample and analysis, a specific speech management technique would be introduced and practiced. This would be followed by recording a brief talking homework tape for TG to listen to immediately with his parents during the ride home. This practice is consistent with the view that transfer training should begin simultaneously with the initiation of therapy and that transfer training should not be delayed until the child reaches some target level of fluency in future sessions (Radford, 2006). A map to emphasize certain strategies was also produced each session and reviewed the subsequent session. A sample map that might be used early in therapy is

provided in the Chapter Appendix. This is a computer-generated map using clip art. Maps do not have to be ideal in form. Figure 4-8, Figure 4-9, and Figure 4-10 are maps that were drawn in therapy by TG or the therapist in the early stages or later stages of therapy.

Results

During pre- and post-testing, TG was assessed using the Stuttering Severity Instrument for Children and Adults (SSI-3), the Lindamood Auditory Conceptualization Test, and the Test of Nonverbal Intelligence, second edition (TONI-2). He also completed a 5-minute pre-post picture description to assess his narrative skills. Based upon test results and interviews, an assessment of TG's problem-solving skills was

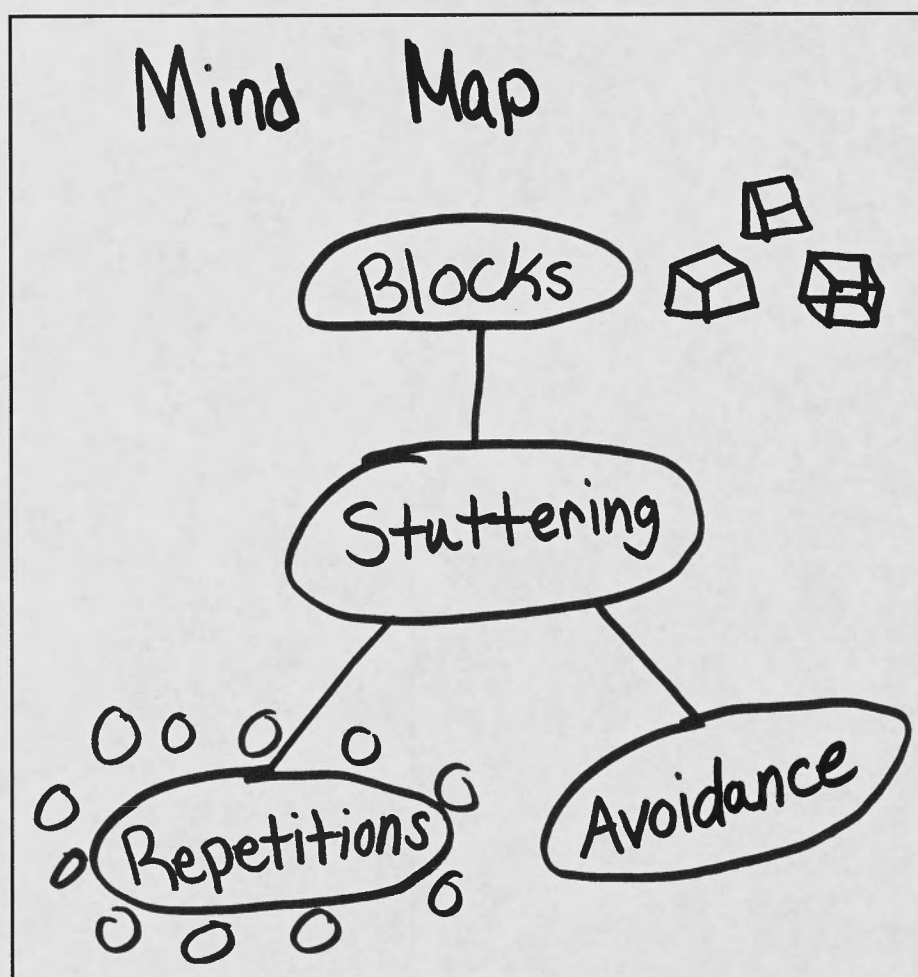


Figure 4-8. TG's First Map to Describe Stuttering.

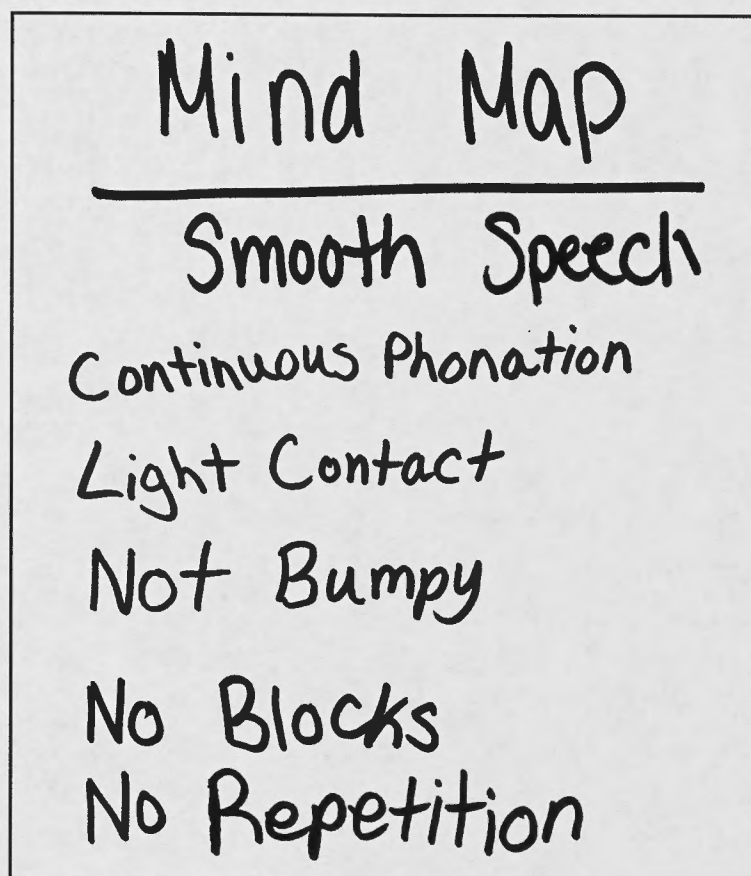


Figure 4-9. TG's Second Map to Illustrate His Idea of Fluency.

completed. This informal assessment involved discussing TG's behaviors in 13 areas and deciding what mediations to incorporate in TG's therapy. Post-therapy involved administration of all the measures used during pretesting. One modification was that standardized pretesting results were not available to the clinicians who conducted the post-testing to avoid examiner bias in post-test measures. Following post-testing, clinicians discussed changes in TG's post-therapy problem-solving skills associated with improved flexibility for managing his stuttering.

Table 4-2 is a summary of pre- and post-therapy descriptors of TG's problem solving across 13 parameters relative to stuttering management. Numbering goes only to 11 in this table because some parameters have been combined. Attitudinal changes were measured also by comparing TG's drawings to express his feelings about stuttering. Figure 4-11 is his pre-therapy drawing. Figure 4-12 is his post-therapy drawing.

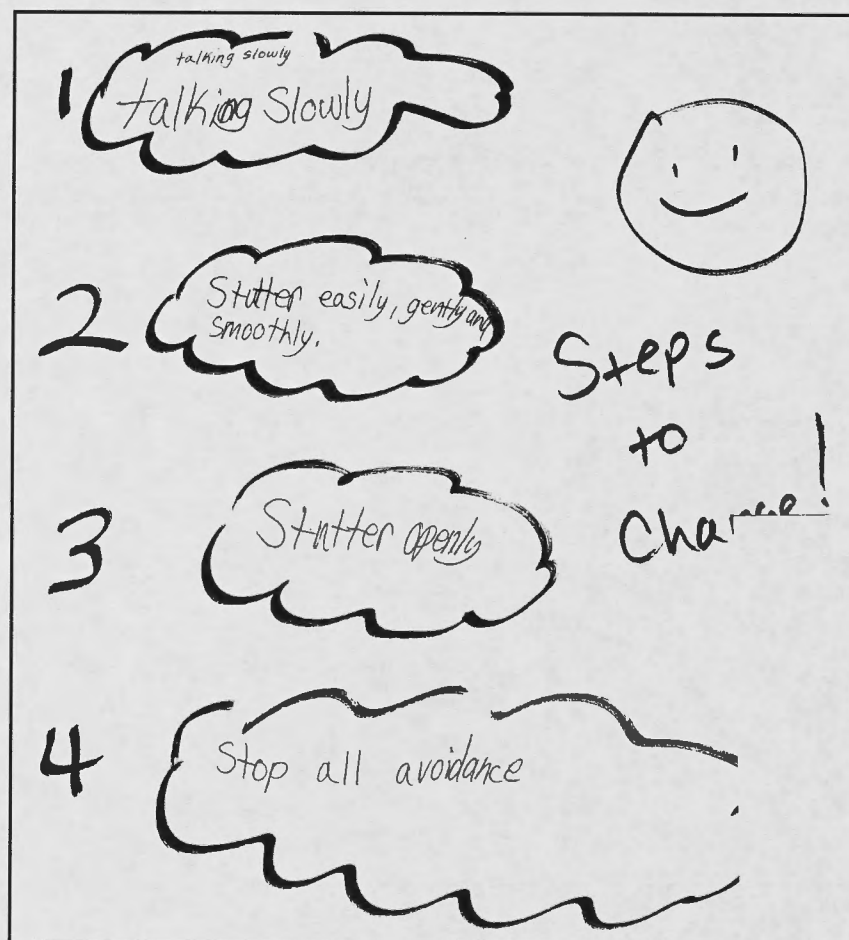


Figure 4-10. TG's Map from Later Period of Therapy.

Table 4—2. Descriptors of TG's Problem Solving Across 13 Parameters

<i>Behavior</i>	<i>Concept</i>	<i>Pretest</i>	<i>Post-Test</i>
1. Persistence	Multiple attempts/ practice	No persistence without reminders	Reports practicing without reminders
2. Cognitive flexibility	Evidence of thinking about tasks related to speaking in more than one way	Covers mouth when stuttering; cannot identify stuttering behaviors or how to change	Can identify strategies that do not work and describe alternatives
3. Listening	Ability to attend to clinician's instructions, NLP tape, own taped samples and identify important features	Listens quietly; however, could not repeat essential details without at least 2 reviews and verbal prompts	Listens attentively; uses maps and journal to summarize important details
4. Precision in thought	Thinking and preplanning		
5. Using prior knowledge	Recalling and applying information from past experiences	TG would not or could not describe his previous therapy or what he learned	TG summarizes significant events from his previous sessions, homework assignments, and experiences with talking in school
6. Reflection	Memory	Avoidance of talking about stuttering	Recalls difficult speech moments and able to share details
7. Precision of language	Word choice; retrieval; word fears	No vocabulary for identification of stuttering behaviors; using all stuttering senses; using visual maps, technology, and NLP with relaxation	Has vocabulary to identify his particular behaviors
8. Metacognition	Self-critique; the ability to think about one's own mood, attitude, and how mood and attitude affect communication	Unable to analyze his own behaviors—strengths and weaknesses	Increased participation in talking; identifying his strengths
9. Creativity	Applying strategies in novel ways that have not been taught; humor	Drew a very negative picture of himself as a stutterer	Drew a sun with glasses on to reflect his new feelings about himself

continues

Table 4-2. *continued*

<i>Behavior</i>	<i>Concept</i>	<i>Pretest</i>	<i>Post-Test</i>
10. Application	Transfer training	No effective strategies for managing stuttering observed	Is able to role-play with the clinician and parents; can analyze tapes of his own speech; completed independent reading regarding managing his stuttering when therapy is decreased
11.-12. Wonderment, curiosity, inquisitiveness, and enjoyment	Outgrowths of all the influence of the successful application of previous strategies; occur spontaneously	No humor; somber mood; expressed a desire to run away from school; both parents cried during interview	Jokes and laughs

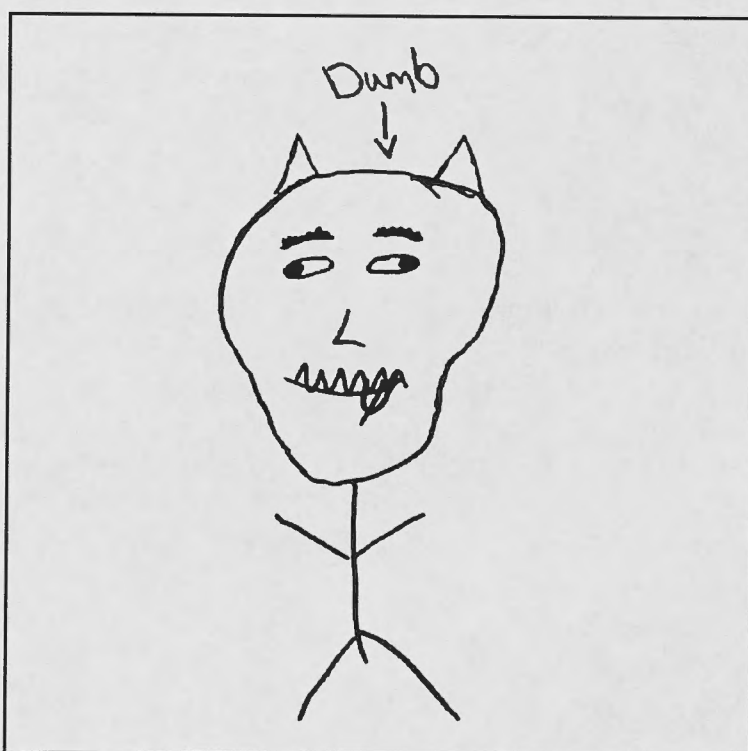


Figure 4-11. TG's Pretherapy Picture to Illustrate His Feelings about Stuttering.

CASE STUDY 2

JE was a 12-year-old Hispanic male whose primary language was English. He is the youngest of three children and has two older sisters. JE

had been receiving special education services for both his stuttering and learning disability. His mother informed us that his speech problem was noticed at age 4 years. He repeated kindergarten due to his slow progress. During this period, he was diagnosed with central auditory processing disorder. He had received special education services since age 4 years. The parents reported that JE's learning abilities were considered slow. Parents also stated that his best subject was spelling and his weakest subject was math. When he was referred to the ST program by his public school SLP, JE was receiving speech therapy, counseling for aggressive behavior and anger management, and assistance through the Content Mastery Center (CMC) for assistance with his academic subjects. Via a telephone interview with his regular teacher, investigators were informed that JE was receiving assistance with English/language arts and math. The teacher expressed concern about JE's disorganization and tendency to wander at school.

Both parents had encouraged JE's involvement in sports—an area of strength for him. He excelled in golf, basketball, soccer, and baseball. However, he struggled with the aca-

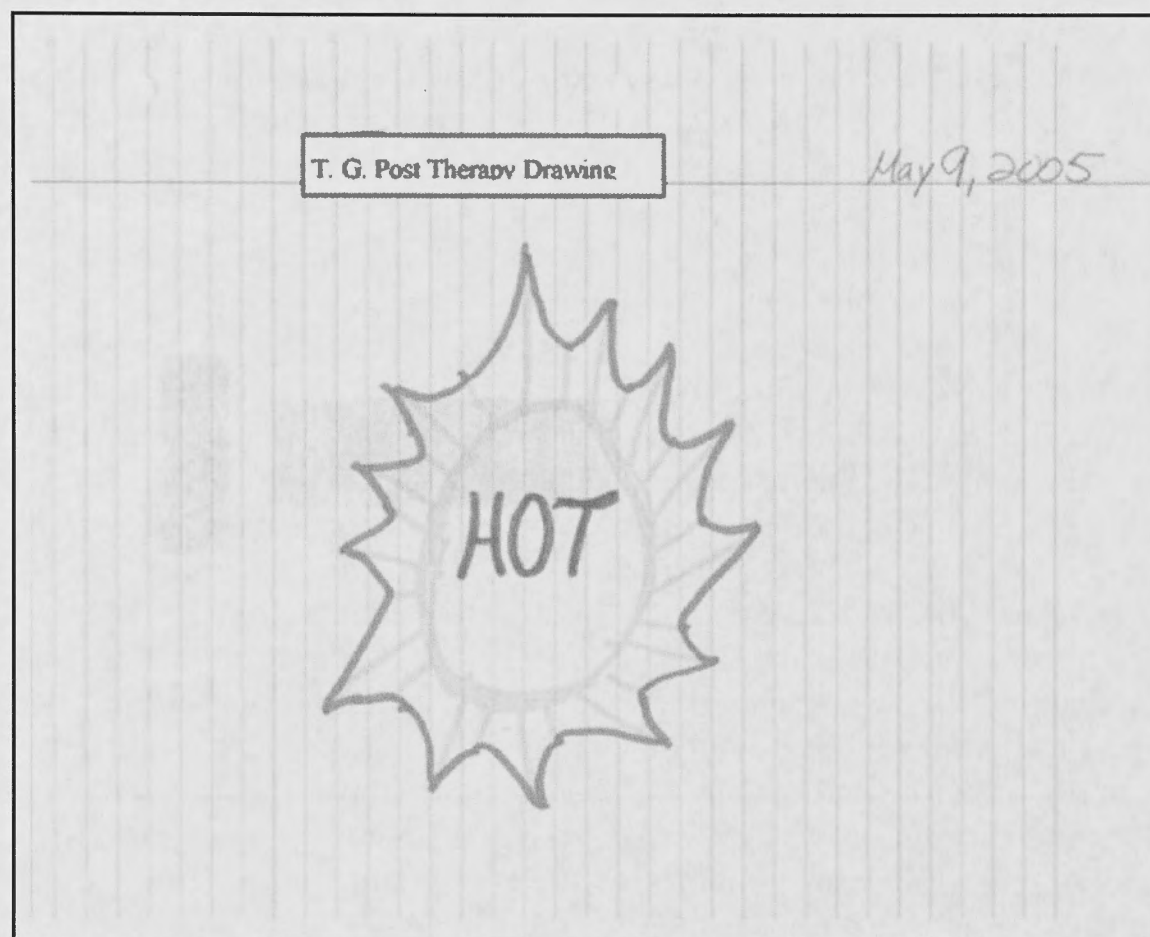


Figure 4–12. TG's Post-Therapy Drawing to Illustrate His Feelings about Stuttering.

demographic subjects and was increasingly resistant to mother's attempts to help him become more independent at home in completing homework assignments. Both parents reported that JE had stuttered with about the same severity since preschool. In spite of the lengthy period of speech therapy, parents were concerned about the limited amount of change in his fluency.

JE presented with a complex interaction of distal factors and questionable mediated learning experiences for management of his stuttering. In contrast to TG, Case Study 1, JE presented with a language impairment as well as fluency problems.

General Procedures

JE participated in 42 hours of therapy, delivered in twice weekly, 2-hour sessions, over the

course of 11 weeks. Like TG (Case Study 1), JE received NLP, delivered in 3-week cycles, with 3 weeks on, 3 weeks off, and 3 weeks on program. Three hours of therapy were individual and 1 hour per week involved a conversational-play interaction and with TG for a combination recreational-talking activity. A fluency-shaping, language training approach was implemented for JE. Fluency activities began with single-word naming and progressed to sentence production during picture description, and structured conversations in which he would explain an activity, describe a picture, or talk about his day at school. Lessons from Radford (2002) were incorporated in each therapy session. Further, opportunities for fluency transfer training also involved the production of an audiotape for JE and his parents to listen to during the ride home. Like Case Study 1, JE's parents were encouraged to participate in conversations

centered on his homework, progressing from single-word utterances to sentences. Unlike TG, JE had little interest in drawing. However, he was interested in writing and was concerned about his struggle in this area. His maps were considerably simpler than TG's maps. Often, his maps were photocopied maps from the ST.

Talking practice for home included JE's parents working with him on telling time, providing answers orally to math problems, reading simple math problems aloud, and developing a schedule for chores he would complete at home. Mother reported that JE had particular difficulty with waiting when she could not talk with him immediately. During these periods, she observed him to stutter more as he posed different statements to get her attention. Part of the home treatment program was to assist Mother in developing some alternative methods for dealing with JE during these periods. One technique was that she immediately responded to him, informing him that he would need to wait about 5 minutes (for example; the time varied anywhere from 1 to 5 minutes) before she could talk with him. He was encouraged to keep up with the time on his watch. During the waiting time, he was not to persist in talking with Mom when she could not talk to him immediately. The strategy was practiced during role-play in therapy with Mom.

Both parents were encouraged to attend and watch the therapy sessions, as well as JE's relaxation training using the NLP CD. Mother attended consistently and watched the sessions. After the initial parental conference, Dad attended two additional sessions and the final conference. Mother reported difficulty in maintaining Dad's assistance with language modeling and using the strategies suggested for encouraging JE's fluency at home. A persistent pattern that supported stuttering was both parents' tendencies to ignore JE's verbal demands for attention. Parental tendency to

ignore him while he persisted in increasingly dysfluent speech was a maladaptive learning experience that clinicians worked to change.

Individual Therapy Sessions

At the beginning of each session, whether preceded by NLP or not, a 5-minute uncued and a 5-minute cued speech sample were taken to calculate JE's percentage of fluency. During each sample, JE was provided a picture to prompt storytelling. His stuttering was so severe, initially, and he had so much difficulty formulating sentences, that a modification was employed. JE was provided a picture and encouraged to name as many words as he could that told something about this picture. To prepare him to name fluently, JE was encouraged to look at the picture and simply think about the words in his head without saying them. The clinician modeled the behavior for him and did some trial naming with a slow rate of speech. An alternative mediation was that he was told to look at the picture for a few minutes, close his eyes, and see a chalkboard behind his eyelids. Once he could visualize the chalkboard, he was told to write the words on the board that named items he had just seen in the picture. He was encouraged to name each word on one breath, with a gentle release of air preceding each production. Eventually, he was provided opportunities to say increasingly longer utterances while maintaining continuous phonation throughout a given multisyllable word, phrase, and eventually sentence.

During subsequent sessions, a particular sentence form was modeled for JE to use during his picture description. The sentence form remained the same during a given session for the 5-minute period of picture description. So for example, JE might say, "I see a soccer ball; I see a net; I see players." During cued samples, clinicians reminded JE to use his techniques

whenever a stuttering moment occurred. During the uncued sample, JE was provided no reminders about fluency or grammar. The two types of samples were alternated each session to avoid order effects. Further, this strategy allowed clinicians to determine when JE began to take more responsibility for using fluency shaping techniques. Board games, card games, word puzzles, worksheets from the ST program (Radford, 2002), and a personal journal were used in the therapy session. After the two speech samples were taken at the beginning of the session, JE, like TG, would count his own total words and total dysfluencies and calculate the percentage of fluency for each sample, with the assistance of the clinicians and use of a calculator. Like TG in Case Study 1, he was encouraged consistently to count aloud as an easy, automatic warm-up speech task that always resulted in 100% fluent speech. After the sample and analysis, a specific speech management technique would be introduced and practiced. JE's techniques included easy onset, a reduced rate of speech, a 5-second wait time before responding to questions, with preplanning (silent rehearsal) occurring during the wait time. Only one technique was introduced per session, and the technique from the prior session would be practiced. This would be followed by recording of a brief talking homework tape for JE to listen to immediately with his parents during the ride home for transfer training. A map to emphasize certain strategies was also produced each session and reviewed the subsequent session. JE was observed one time at school and his regular classroom teacher was interviewed during the beginning of therapy.

Results

Pre- and post-test results for JE are provided in Table 4-3. Pretesting included the Test of Non-

verbal Intelligence-3, the Goldman-Fristoe Test of Articulation-2 (GFTA), the Stuttering Severity Instrument-3, the Lindamood Auditory Conceptualization Test (LAC), and a picture description task. Because JE's articulation skills were assessed as age-appropriate during the pretest, The GFTA was not given as a post-test. LAC post-testing did not occur because the parents had to leave the session early with JE because of a scheduling conflict (a plane flight for the start of vacation). During a final interview, Mother expressed concern that it was difficult to engage Dad with the talking strategies—even though he was very concerned about his son's performance. Mother indicated that Dad's interactions with JE were often more physically oriented than talk oriented. Therefore, Dad and JE would play golf or wrestle. Mother did indicate that she was able to support JE speaking more "planfully" and not blurting out as much or demanding attention. Both parents commented regarding JE's response to the NLP CD. During the second session, as the narrator talked about how it felt to stutter, JE cried as he lay on the couch. Both parents had seen him angry and aggressive when he had difficulty communicating; neither parent had indicated having seen an opportunity for him to express his sadness or cry about his stuttering and other communication problems.

In addition, JE's pre- and post-test performance along the 13 problem-solving behaviors associated with successful stuttering management are provided in Table 4-4. JE did not care for art activities. However, he did write one sentence to summarize a strategy he could use to address his stuttering. The clinician had explained that JE should keep trying to talk if stuttering happened. JE wrote, "she told me if I miss [sic] up taking [sic] I cud [sic] try again next time." He needed assistance to spell most words and attempted to spell words phonetically.

Table 4—3. Pre- and Post-Treatment Data for JE, Age 12 Years

<i>Measure</i>	<i>Pretest Score</i>	<i>Post-Test Score</i>
SSI		
Frequency Score	12	4
Duration	10	8
Physical Concomitants	7	8
Overall	29	20
Percentile	80.5 (78-88)	40 (24-40)
Severity Rating	Severe	Mild-Moderate
Dysfluency Index		
	Pre-NLP	Post-NLP
Uncued Sample 1	Absent, late enrollment	1/271 (.4%)
Uncued Sample 2	Absent, late enrollment	
Uncued Sample 3	Absent, late enrollment	
Cued Sample 1	Absent, late enrollment	3/370 (.8%)
Cued Sample 2	Absent, late enrollment	
Cued Sample 3	Absent, late enrollment	
Lindamood Auditory Conceptualization Test	Not completed	Not completed
Goldman-Fristoe Test of Artic.-2		
Standard Score	104	Not administered
Percentile	27	
Test of Nonverbal Intelligence-3		
Raw Score	0	Not completed
Quotient	60	
SEM	>1	
Percentile Rank	>1	

Table 4—4. Descriptors of JE's Problem Solving across 13 Parameters

<i>Behavior</i>	<i>Concept</i>	<i>Pretest</i>	<i>Post-Test</i>
1. Persistence	Multiple attempts/ practice	Avoidance of practice	Practice when reminded; schedule book and journal to help organization
2. Cognitive flexibility	Evidence of thinking about tasks related to speaking in more than one way	Difficulty changing activities	Difficulty changing topics and activities; reminders help

Table 4—4. continued

<i>Behavior</i>	<i>Concept</i>	<i>Pretest</i>	<i>Post-Test</i>
3. Listening	Ability to attend to clinician's instructions, NLP tape, own taped samples and identify important features	Impulsive; interrupts before hearing all directions	Using 5-second wait rule and repeating before acting or responding
4. Precision in thought	Thinking and preplanning	Inability to recall details from school day or therapy	Can recall details with verbal and visual cues; supplement with note cards
5. Using prior knowledge	Recalling and applying information from past experiences	Inconsistent in organizing communication; omits essential details; fails to recognize listener miscomprehension	Improved verbal communication; silent rehearsal and visual imagery to plan before talking
6. Reflection	Memory	No vocabulary to describe his speech; just says, "I don't know."	Can imitate or verbally describe his stuttering
7. Precision of language	Word choice; retrieval; word fears	Gestures when he cannot recall a specific word; false starts and incomplete utterances frequent	Uses gesture to supplement message; preplanning helps in clarity of his communication
8. Metacognition	Self-critique; the ability to think about one's own mood, attitude, and how mood and attitude affect communication	Unable to analyze his own behaviors—strengths and weaknesses	Improvement, but difficulty with self-monitoring; responds more quickly to reminders
9. Creativity	Applying strategies in novel ways that have not been taught; humor	Limited	More humor and attempts to engage verbally
10. Application	Transfer training	No effective strategies for managing stuttering observed	Is able to role-play with the clinician and parents; can analyze tapes of his own speech with assistance; therapy is decreased
11.-12. Wonderment, curiosity, inquisitiveness, and enjoyment	Outgrowths of all the influence of the successful application of previous strategies; occur spontaneously	No humor; somber mood; difficulty maintaining attention and remaining still; tires easily with language activities	Jokes and laughs. More attempts to write. Interest in telling time and planning his weekend activities

CASE STUDY 3

ZA was a 10-year-old, English-speaking, African American child of adoptive parents. He was diagnosed with fetal alcohol syndrome (FAS), attention deficit disorder, and oppositional defiant disorder. He participated in the ST program prior to the institution of NLP as a routine mediation. His public school SLP referred him. ZA was entering the fourth grade as a transfer student from a northern state, where he and his adoptive parents had resided since his adoption as an infant. ZA was undergoing some school adjustment problems because of a move south and transfer to a school that was almost 100% Mexican American.

ZA presented with vision problems, corrected with glasses. He was enrolled in special education classes, psychological counseling, and occupational and physical therapy. He received math instruction in the resource room and math skills were described as 2 years delayed. His best subjects were reported to be social studies, science, and reading. ZA's birth mother was described as an alcoholic who relinquished responsibility for ZA at birth. No information was available regarding his birth mother's pregnancy and delivery other than the fact that ZA was the seventh of eight pregnancies. His mother (from here forward, the adoptive parents will be referred to as Mother and Father) reported that ZA had speech therapy almost continuously since 5 years of age. Based on parent report, it appeared that ZA had accomplished milestones for cooing, babbling, and first words at the expected ages in spite of recurring ear infections prior to 12 months. He was delayed in crawling, walking, and toilet training (with toileting mastered at 3 to 4 years). ZA had an adenoidectomy and tonsillectomy at 8 years. He was being followed by an orthodontist regarding dental problems and a significant overbite. He had been fitted with eyeglasses to correct his vision 1 year prior to referral to the Smooth Talking Clinic.

The parents reported that ZA had difficulty with abstract concepts. He was reported to respond well to school subjects he liked; however, Mother stated he "won't even try" if it was a subject he did not like. Because of problems with writing, the parents were trying to obtain a word processor for ZA to use at school. His prescribed medications were Adderal, cloridine, Claritin D, and a Rhinocort inhaler. The parents were concerned about his stuttering and indicated that ZA avoided talking to adults and would become aggressive when he was unable to communicate.

General Procedures

ZA attended therapy for 5 weeks, with two sessions per week, 2 hours per session, for a total of 18 hours of therapy. Of the 18 hours, 13½ hours were individual sessions, with 4½ hours of group therapy sessions with 4 to 5 other children receiving services for stuttering. For ZA's first three therapy sessions, only uncued samples were collected to determine his baseline level of stuttering. In three subsequent sessions, cued and uncued samples were collected.

A fluency shaping approach was established as the primary intervention strategy for ZA, with techniques taught in the context of his reading various storybooks. Following his reading of the storybook, he was asked questions about the story to encourage recall and improved memory. Consistent with behaviors associated with FAS, ZA was difficult to redirect once he became frustrated. He expressed a dislike of generating his own stories based on looking at pictures and so this activity was discontinued.

Eye contact was not maintained appropriately and he exhibited secondary characteristics of waving his hands or covering his face with his hands during moments of speech difficulty or making a clicking sound with his tongue. Various worksheets from the ST pro-

gram (Radford, 2002) were incorporated in the sessions. Further, a map was completed each session that highlighted a new technique or strategy for ZA to use at home. For his first three therapy sessions, only uncued samples were collected to determine his level of fluency. Both parents attended every session and were encouraged to use various activities at home.

Individual Therapy Sessions

At the beginning of each sample, a cued and/or uncued sample was collected. This was followed by a review of ZA's speech map and homework from the previous session. A new worksheet to emphasize a new strategy would be introduced. ZA primarily used fluency shaping. However, he did use negative stuttering practice (bouncing), combined with numbers and written words so that he could choose a number and bounce on the initial sound of the word for a specified number of times. This concrete activity was enjoyable to him because it included his favorite activity of reading. Three parent-counseling sessions were held: one at the beginning of therapy, one during the second week, and the final one during the last week of therapy. The reader is reminded that NLP was not used as mediation with ZA because the CD had not been incorporated at this time. However, feelings and attitudes were addressed, using the positive messages associated with the ST program worksheets (Radford, 2002).

Parents were provided a homework tape at the end of each session that contained a recording of ZA using a particular speech technique. Parents would take notes and write questions down as they occurred to them regarding what they heard on the tape. To transfer ZA's use of more fluent speech to the home setting, the parents were encouraged to establish a routine of having ZA write down and talk about 10 things that happened to him each day. Their primary strategies were to listen and to repeat what ZA said, modeling slow

and easy speech, with either a reduced or an expanded utterance.

Results

ZA's pre- and post-therapy results are provided in Table 4-5. His pretest SSI performance was an overall score of 28, which converted to a percentile of 78 (78-88), indicating severe dysfluency. His post-test overall score was 21, or a percentile of 41 (41-60), equivalent to a moderate severity. During baseline data collection, ZA had difficulty describing pictures or telling stories from a picture. He also had difficulty recalling events, such as what he did during the weekend. During the first session, he expressed his frustration by telling his clinicians that he did not like so many questions and that he was ready to leave. He responded to firm directions, such as, "ZA, you can do this; let's get finished," and "It may seem like hard work; I will help you; it will get easier." When he seemed particularly agitated, clinicians would simply stop all activity and essentially tell ZA they were taking some time so that he could prepare to work.

KEY POINTS FOR THE CLINICIAN

Three case studies are adapted from a recent publication to provide detailed models for planning and implementing ST (Radford & Tanguma, 2007). Three boys, a 13-year, 7-month-old Mexican American enrolled in regular education, a 12-year-old Mexican American with language disorder and stuttering, and a 10-year-old African American child diagnosed with FAS, attention deficit disorder, oppositional defiant behavior, and stuttering, were participants. Mediated learning experience (MLE) provided a framework for addressing the numerous factors that co-occur with stuttering, or that may have some negative impact upon stuttering in children. The case studies provide some evidence

Table 4–5. Pre- and Post-Treatment Data for ZA, Age 10 Years

<i>Measure</i>	<i>Pretest Score</i>	<i>Post-Test Score</i>
SSI		
Frequency Score	13	6
Duration	6	6
Physical Concomitants	9	9
Overall	28	21
Percentile	78 (78–88)	50.5 (41–60)
Severity Rating	Severe	Mild-Moderate
	<i>Pretherapy Picture Description</i>	<i>Post-Therapy Picture Description</i>
Dysfluency Index		
Uncued Sample	29/496 (5.84%)*	13/281 (4.62%)
Cued Sample	Not taken	
	<i>Pretest Score</i>	<i>Post-Test Score</i>
Clinical Evaluation of Language Fundamentals Screening Test	4 (criterion: 21)	Not administered

*Note. The Dysfluency Index is calculated by total number of dysfluencies divided by the total number of syllables.

that an MLE approach was effective in spite of individual differences, behavioral challenges, and differing cognitive skills. Furthermore, positive changes occurred even for the children in Case Study 2 and Case Study 3. These children also improved either in spite of a frequent absentee rate or, in ZA's case, early termination of treatment because he could not attend for the recommended 40 hours of therapy.

Essential elements of ST include: (a) cued and uncued speech sampling each session, (b) use of maps to guide and reinforce learning and to reduce memory load, (c) emphasis on transfer training from the beginning of therapy, (d) using 5-minute recordings or therapy excerpts that are consistently shared and discussed with parents in addition to notes, (e) recognition that change requires attention to detail, and consistent support of the child and parents to alter their routines and communica-

tion, (f) incorporation of the age-appropriate track from the listening CD after some period of counseling and education about stuttering, feelings, and attitude, (g) incorporation of prosthetics for children over the age of 10 years if other strategies have failed, (h) the need to work with teachers, and (i) time.

POSTSCRIPT: FOLLOW-UP

Eight months following his release from the research study, TG and his mom were interviewed briefly via phone. Mother reported that TG experienced a relapse during the Thanksgiving and Christmas holidays. She reported that she had observed him stutter so badly at one point that he could not get his words out. With further inquiry, TG's mom indicated that

TG did not seem to exhibit any anxiety about his stuttering. It seems that he had many relatives around, particularly his other male cousins, and was not concentrating on his speech. Mom allowed the author to talk to TG via phone. A 3-minute sample via phone resulted in 118 words, with five stutters (4.2% dysfluency). Conversation topics included school, the changes Mom observed at Christmas, and what he thought about his stuttering. During the phone conversation, two stutters were "um" placeholders and three were part-word stutters that were noticeable but not severe. TG was encouraged to continue to use his techniques. He had continued his enrollment in public school therapy. Following the conver-

sation with TG, this author spoke with Mom to inquire what was working and what she remembered from ST.

Eighteen months later, a telephone conference with TG's dad indicated that he was dismissed from public school therapy about 3 months following the prior phone conference with his mom. TG's dad indicated that TG had grown physically and socially. He was currently in the 10th grade and was managing his communication well, according to Dad's report. TG was not available at the time of the call.

No follow-up was completed with JE or ZA after their release from ST. It seems that ZA and his family moved with no forwarding address available. Figure 4-13 is a handwritten

Thank-you for inviting [redacted] to be a part
of this program. I believe it was
a great help to [redacted].

Thank-you for your patience in working with [redacted]
and for making modifications that worked for him

We had great suggestions from Dr. Radford, Letty,
Cara + Dawn

It would help me to have a list of ways
or activities or suggestions on how we can
help [redacted] or what we can do for him so I'll get better at
Speech

What happened to the video and worksheets
from the beginning? If possible I would
like to continue these.

Figure 4-13. Letter from ZA's Mother at End of His 5 Weeks of Therapy.

note from ZA's mom regarding her thoughts about the therapy he received. She felt the program helped him and she had anticipated continuing therapy in the research study. However, this author suspects the family moved because of the unique circumstances in which they found themselves (distance from family and the limited number of African American children with whom ZA could interact in this particular community).

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APPENDIX

After a strategy has been selected by the SLP, the strategy would be practiced in therapy. The clinician serves as mediator to introduce and model. The clinician then relinquishes or shares the teaching role with the child, who models and guides either the clinician or another child

through the strategy. A map is generated to take home as a reminder. It is helpful if several colorful maps are generated and placed in strategic places at home that the child chooses. Figure 4-14 is a sample map.

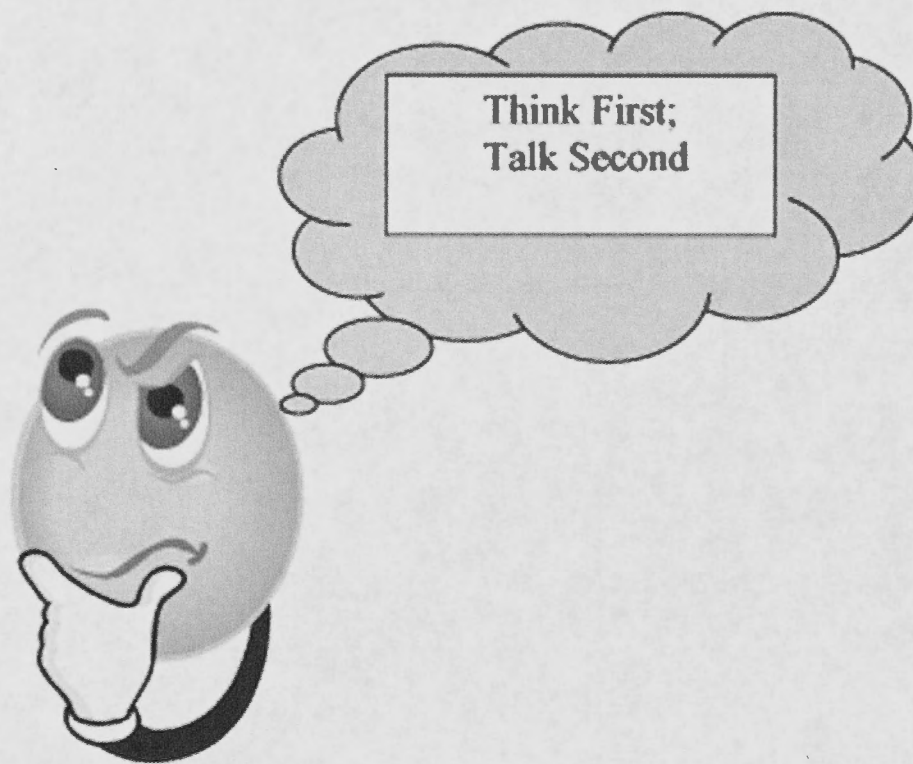


Figure 4-14. Sample Map as Example for Clinicians to Imitate.

Chapter 5

Modifications for Public Schools

Numerous articles are available regarding therapy in the school setting in addition to resources discussed in previous chapters, including Special Interest Division 4 (American Speech-Language-Hearing Association [ASHA], 1995) and Stuttering Foundation of America (e.g., Arndt & Healey, 2001; Bennett, 2003; Shields & Kuster, 2003; Sisskin, 2002; Williams & Dugan, 2002; Yaruss, 2003; Zebrowski & Cilek, 1997). The reader is referred to the references provided at the end of the chapter for additional reading. Specific resources of interest include the 2006 Schools Survey, Guidelines for Practice in Stuttering Treatment, and Treatment Efficacy Summary (ASHA, 1995, 2006, 2007). The 2006 Schools Survey Report includes an extensive list of references and additional sources. Some details from the survey follow as a pretext for suggestions for serving children in the school setting.

The 2006 ASHA Schools Survey response rate was 64%, with 2561 ASHA-certified speech-language pathologists (SLPs) employed in public schools reporting. Sixty-nine percent of SLPs indicated regularly serving clients with fluency disorders, with a mean number of three clients served. Articulation/phonological disorders were the most regularly served clients overall, with an average of 23 clients served. SLPs surveyed reported spending the majority of their service time (21 hours) per week in the traditional pullout model. SLPs reported about 4 hours for classroom-based/curriculum-based services, 2 hours in consultation, and about 1 hour per week in a resource room. Direct intervention time was reported as 24 hours weekly, whereas observation was reported to occur less than an hour per week. With the average caseload in the

United States being about 50, children who stutter constitute 3% or less of caseload assignments for public school SLPs.

The survey indicated a trend whereby individual sessions appeared to have been declining and group sessions have been increasing (ASHA, 2006). Group sessions were double the rate reported for individual sessions. Clinicians also reported that the majority of their clients fell in the moderate range of severity.

REAUTHORIZATION OF INDIVIDUALS WITH DISABILITIES EDUCATION ACT (IDEA) AND NO CHILD LEFT BEHIND

The basic premises of No Child Left Behind (NCLB) are accountability, more flexibility, more options for parents and an emphasis on work to improve student achievement (Mississippi Office of Special Education, 2003). The goal was to align IDEA with the principles of NCLB (Wright, 2003). Children with disabilities must be considered as general education students first, with emphasis on results. Evidence-based practice is a component of the accountability so that children served experience best practices. These mandates, of course, will be considered in light of school-based services for children who stutter.

IMPLICATIONS FOR THERAPY IN PUBLIC SCHOOLS

Clinicians are encouraged to resist the trends to place children who stutter in group therapy when they are first identified and enrolled.

Regardless of the severity of the stuttering, children may be best served when they may talk privately about their experiences with stuttering. The early stages of therapy include education and counseling. Children need some time to analyze their own pattern of stuttering in a safe place without fear of a surprise reaction from a member of a group. Further, this approach eliminates any issues of confidentiality if parents are invited to sessions or if therapy sessions are recorded.

Clinicians should plan for routine observation of children who stutter in various classes, at lunch, and during extracurricular activities during both assessment and treatment. Support for this approach is found in Guidelines for Practice in Stuttering Treatment discussed earlier (ASHA, 1995). ST is framed in accordance with best practices and Asha guidelines. A suggested management strategy is to examine the overall caseload and determine the percentage of children with fluency disorders. Beyond direct intervention, 15 minutes per week should be used for direct observation on a consistent basis. Observation can be done discreetly, with the clinician preparing teachers and students for a visit by simply saying a

visitor is coming today who is interested in seeing what the class is learning. Observations can be discussed in subsequent individual sessions. Digital tape recorders for making an immediate note following the classroom visit are excellent paper savers and an easy and effective way to gather useful data to determine overall progress.

After some period of individual therapy, children may be assigned to groups. Decision-making is guided by the child's improved management of communication and readiness to begin applying his knowledge and skills in a group. Groups should be organized by disability category. Therefore, stuttering children should be grouped together (Figure 5-1). This is a good accommodation for children who have difficulty making friends. Children who stutter may be targeted for bullying if they are "loners" without a peer group. However, children who stutter will not necessarily become friends because they share stuttering. When forming groups, the clinician should take children's personalities and differences into account. The ST recordings for home practice can be made more easily under these circumstances of similar ability grouping.

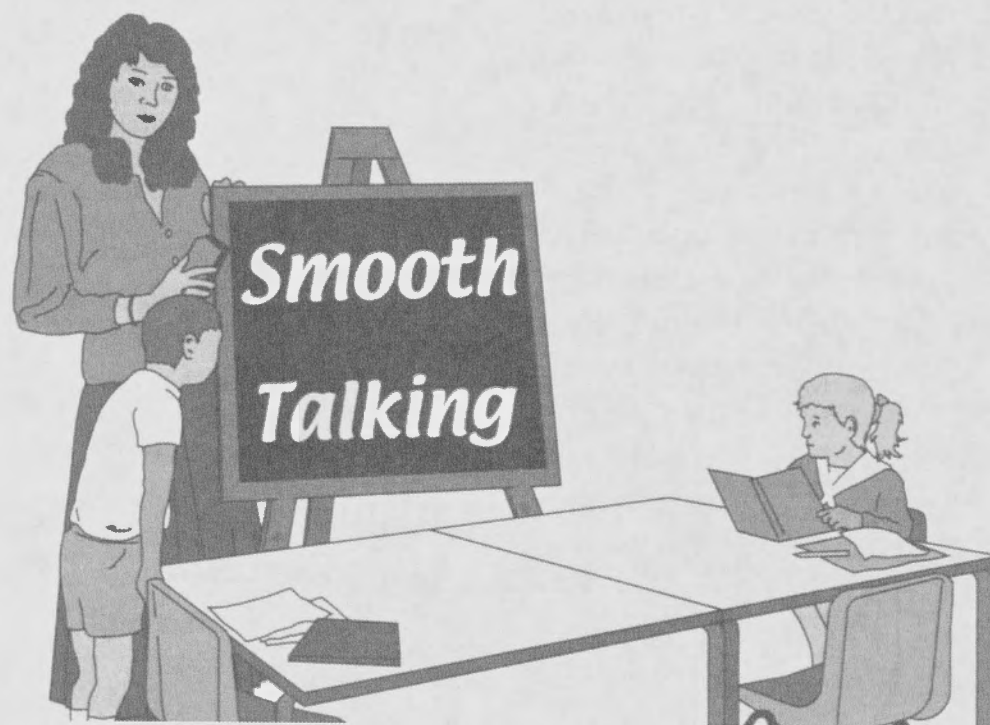


Figure 5-1. Group sessions might be incorporated in later stages of therapy, not in the initial stages.

Incorporating relaxation/cognitive mediation training with the CD in a school setting is challenging but not impossible. This modification should be discussed during individual education planning. Parents and teachers need a clear explanation regarding the CD and an opportunity to listen to the CD the child will experience. I would also urge that children listen to the CD individually during therapy to prevent any disruption to open discussion about their feelings and to allow them time to deal with the feelings the CD may evoke. Based on my current work, the CD should only be initiated following some preparation. After some period of education and counseling, using the ST materials you deem appropriate for your client, tell the child that he will eventually have an opportunity to listen to a message about stuttering. The child's responsibility is to sit comfortably with a head on the desk or reclining in a chair (when that option is available). The track for older children 7 to 11 and beyond may take up to 20 minutes. Once per week for listening would be appropriate. The SLP or speech assistant should be present to monitor the child during this activity.

Recordings of therapy should be used on a regular basis and be sent home for parents to hear. Alternatives to sending recordings home are telephone conferences so that the 5-minute sample of therapy may be shared during the phone conference. Parents may also be encouraged to record a message and send it back to the clinician. Again, the recordings are samples of the child demonstrating what he completed in therapy. The recordings also provide an opportunity to provide a model for parents.

Mapping may be used effectively in therapy to establish joint topics of conversation, to review concepts, reduce memory load, and enhance learning. Mapping strategies should be discussed with parents and teachers prior to implementation.

Structured games may be used to establish a joint topic. As emphasized on the training

DVD, the purpose of the game is to establish a topic of conversation (just as was done with the mapping). The actual "game playing" is less important than providing a pleasurable activity during which the child is motivated to attempt a talking strategy.

For additional information regarding resources and materials, revisit Chapter 4. Do review the Training DVD and sample therapy session provided. Use the Clinician's Therapy Management Planning Sheet provided in Appendix C to select the worksheets and activities appropriate for a particular client.

To conclude:

1. Every effort should be made to incorporate the CD for cognitive mediation on a consistent basis. These additional accommodations could be noted in treatment plans or individual educational plans.
2. Clinicians who do not review ST thoroughly before attempting to incorporate the strategies and materials in therapy will achieve less satisfactory results.
3. Making regular recordings for communicating with parents and using the game boards and mapping are essential strategies.
4. Participation in regular education is urged by the reauthorized IDEA. SLPs should regularly visit classrooms.
5. Individual therapy is strongly recommended when children are initially enrolled for speech-language services.

Table 5-1, Table 5-2, and Table 5-3 contain sample goals adapted from Radford (2002). The goals are comparable to those developed by the Special Interest Division 4 of Asha (1995). However, they are organized according to stuttering modification, fluency shaping, and an integrated approach (see Peters & Guitar, 1991). Sample pages to implement the goals are also provided.

Table 5–1. Sample Goals and Accompanying ST Lessons for Stuttering Modification

<i>Goal</i>	<i>ST Lessons to Implement this Goal</i>
Provided a model of target dysfluent behaviors and definitions, the child will orally describe his own pattern of dysfluency and complete a word association map that labels the behaviors in preparation for speech modification to improve communicative effectiveness.	See Workbook pp. 2–11; select appropriate lesson.
The child will use journals, mapping, and word association to illustrate and explain his feelings about stuttering to reduce the child’s reported level of anxiety about talking as documented through periodic interview or formal assessment.	See Appendices for suggested maps.
Provided a model, the child will identify dysfluent moments (“stop,” “there’s one”) and name the type of dysfluency to develop consistent self-monitoring necessary for speech modification.	See Workbook p. 8 (stuttering) and p. 9 (cluttering)
Provided a video or audio sample of various dysfluent speakers, the child will identify various dysfluencies to increase awareness of stuttering and decrease negative reactions to stuttering.	Use audio or video samples; video- tapes available through Stuttering Foundation’s moments of stuttering; or samples from ST materials See Workbook p. 8 (stuttering) and Workbook p. 9 (cluttering)
Provided a model, audio, or video samples to demonstrate muscular tension associated with dysfluent speech, the child will identify moments of tension.	Use samples from therapy; provide a clinician model; use ST samples, other materials
Provided a model, the child will imitate progressive relaxation exercises consisting of • hand tensing/relaxing • leg tensing/relaxing • facial/oral tensing/relaxing • whole body/tensing/relaxing • speaking while tensing/relaxing speech muscles	See Workbook p. 2–3, first lesson on stuttering, and p. 9 on cluttering See Workbook pp. 5–8
Provided a direct model, the child will demonstrate productions of variable intensities and pitch ranges during speech production to increase awareness of these features of speech and practice voluntary manipulation.	See Workbook p. 19.
To prepare for speech modification, the child will describe secondary stuttering features and habits that interfere with fluency and effective communication.	See Workbook pp. 14–49
Provided a model of fluent speech, the child will complete a word map association to identify the characteristics of smooth or fluent speech to prepare for speech modification.	See Appendix A
Provided a model, the child will describe the features of fluent or smooth speech versus dysfluent speech.	See pp. 52–59 of Workbook and see maps in Appendix A

Table 5–1. continued

<i>Goal</i>	<i>ST Lessons to Implement this Goal</i>
Once per week, the child will record selected portions of the session, not to exceed 5 minutes to review at home with the parents to support transfer of speaking skills.	Recorder needed
Provided a model, the child will demonstrate hard stuttering in contrast to easy stuttering, (repetitions or over-over words, contrasted with bouncing the first sound or syllable; involuntary, tense prolongations contrasted with voluntary, easy prolongations, repetitions, or blocks contrasted with pullout and cancellations).	See Workbook pp. 26–49
The child will participate in drill-play activities to stabilize use of target strategies for stuttering modification.	See game boards for Bouncing See game boards for Pullout/Cancellation
During role-playing activities, the child will demonstrate use of strategies to modify stuttering at increasingly complex levels, progressing from the word, phrase, sentence, to conversational level and during reading.	See Workbook pp. 26–49 See Appendix C for reading material and Appendix D for games.
The child will identify feared words and practice stuttering modification techniques to improve production of feared words.	See Workbook pp. 47–49
The child will complete whole body relaxation and listening activities to decrease negative emotions about stuttering and talking once per week.	Use Cognitive Mediation CD
The child will use at least one speech modification strategy to reduce stuttering moments.	
The child, assisted as needed by the clinician, will make a list of strategies for maintaining fluency and/or modifying stuttering moments (smooth speech) at home, school, and in the community.	See Workbook p. 62
During group activities in therapy, the child will demonstrate increased fluency and/or mild stuttering for all moments of observed dysfluencies for 45 to 60 minutes over three sessions.	See Workbook p. 49
The child will make a list of situations associated with increased stuttering and participate in role play and other activities to reduce anxiety through repeated exposure.	Generate self-made maps Consider specific practice with telephone use; participation in extracurricular activities
The child will use identified strategies for communicative effectiveness. and use the strategies for all communicative exchanges at home, at school, and in the community.	

Table 5–2. Sample Goals and Accompanying ST Lessons for Fluency Shaping

<i>Goal</i>	<i>ST Lessons to Implement this Goal</i>
Provided a model of target dysfluent behaviors and definitions, the child will orally describe his own pattern of dysfluency and complete a word association map that labels the behaviors in preparation for speech modification to improve communicative effectiveness.	See Workbook pp. 2–11 ; select appropriate lesson
The child will use journals, mapping and word association to illustrate and explain his feelings about stuttering to reduce the reported level of anxiety about talking as documented through periodic interview or formal assessment.	See Workbook pp. 7–8
Provided a model, the child will identify dysfluent moments (“stop,” “there’s one”) and name the type of dysfluency to develop consistent self-monitoring necessary for speech modification.	See Workbook p. 8 (stuttering) and p. 9 (cluttering).
Provided a video or audio sample of various dysfluent speakers, the child will identify various dysfluencies to increase awareness of stuttering and decrease negative reactions to stuttering.	Use audio or video samples; videotapes available through Stuttering Foundation’s moments of stuttering; or samples from ST materials See Workbook p. 10 (stuttering) and Workbook p. 11 (cluttering)
Provided a model, audio, or video samples to demonstrate muscular tension associated with dysfluent speech, the child will identify moments of tension.	Use samples from therapy; provide a clinician model; use ST samples, other materials
Provided a model, the child will imitate progressive relaxation exercises consisting of: • hand tensing/relaxing • leg tensing/relaxing • facial/oral tensing/relaxing • whole body/tensing/relaxing • speaking while tensing/relaxing speech muscles	See Workbook p. 2, first lesson on stuttering, and p. 9 on cluttering See Workbook pp. 14–23
Provided a direct model, the child will demonstrate productions of variable intensities and pitch ranges during speech production to increase awareness of these features of speech and practice voluntary manipulation.	See Workbook p. 19
The client will describe secondary stuttering features and habits that interfere with fluency and make it difficult for listeners to pay attention to the client. The client will eliminate secondary stuttering features and habits that interfere with communicative effectiveness.	See Workbook pp. 52–59
Provided a model of fluent speech, the child will complete an association word map to identify the characteristics of smooth or fluent speech.	See Appendix C

Table 5–2. *continued*

<i>Goal</i>	<i>ST Lessons to Implement this Goal</i>
Provided a model, the child will describe the features of fluent or smooth speech versus dysfluent speech to increase self-monitoring of dysfluencies that disrupt communication.	See pp. 2–11 in the Workbook and Maps in the Manual Appendix.
During word elicitation activities, the client will name words at a slow rate characterized by 100% fluency. (target >50% of the words per minute calculated for client during a typical conversation).	See Appendix C in Manual for Clinician Forms for planning therapy.
During phrase elicitation activities, the child will speak in phrases, maintaining the target speaking rate at which fluency can be maintained to improve communicative effectiveness.	See Appendix C in Manual for Clinician Forms for planning therapy.
During conversational and reading activities, the client will alternate between the target slow speaking rate and normal rate as cued by the clinician.	See Appendix C in Manual for Clinician Forms for planning therapy.
During group role-playing activities and games, the client will demonstrate use of slow speaking rate, light articulatory contact, and continuous phonation (or phrasing and blending) to modify stuttering at the word, phrase, sentence, and conversational level.	See Appendix C in Manual for Clinician Forms for planning therapy. See games for slow rate
The child, assisted as needed by the clinician, will make a list of strategies for maintaining fluency at home, school, and in the community.	See Workbook p. 52–59
During group activities in therapy, the child will demonstrate increased fluency and/or mild stuttering for all moments of observed dysfluencies for 45 to 60 minutes over three sessions.	See Workbook for all pages that apply for review
The child will make a list of situations associated with increased stuttering and participate in role play and other activities to reduce anxiety through repeated exposure.	Generate self-made maps Consider specific practice with telephone use; participation in extracurricular activities
The child will use identified strategies for communicative effectiveness and use the strategies for all communicative exchanges at home, at school, and in the community.	
The child will participate in drill-play activities to stabilize use of target strategies for fluency shaping.	See Game boards for Phrasing See Game boards for Slow Rate Cancellation
During role-playing activities, the child will demonstrate use of strategies to maintain fluency at increasingly complex levels, progressing from the word, phrase, sentence, to conversational level and during reading.	See Workbook pp. 26–49 and 52–59 See Appendix C in Manual for Clinician Forms for planning therapy.

continues

Table 5-2. *continued*

Goal	ST Lessons to Implement this Goal
The child will identify feared words and practice slower speech rate, continuous phonation techniques to improve production of feared words.	See Workbook pp. 47-48
The child will complete whole body relaxation and listening activities to decrease negative emotions about stuttering and talking once per week.	Use Cognitive Mediation CD
The child will use at least one fluency shaping strategy to reduce stuttering moments during conversation and reading activities in therapy and as preparation for transfer training to other situations.	See Appendix B for word lists
The client, assessed as needed by the clinician, will develop strategies for maintaining fluency (smooth speech) at home, at school, and in the community.	See Appendix B; Sample Notes to Parents

Table 5-3. Goals and Suggested ST Lessons for Stuttering-Cluttering Modification

Goal	ST Lessons to Implement this Goal
See goals suggested for stuttering modification and fluency shaping.	See lessons previously suggested. Combine strategies as appropriate for the client
Provided a model of target dysfluent behaviors and definitions, the child will orally describe the pattern of dysfluency and complete a word association map that labels the behaviors.	See Workbook pp. 2-11; select appropriate lessons
Provided a model, the child will identify dysfluent moments or periods of rapid speech ("stop," "there's one") and name the type of dysfluency.	See Workbook p. 8 (stuttering) and p. 10 (cluttering)
Provided a video or audio sample of various dysfluent speakers, the child will identify stuttering (bumpy) and fluent (smooth) speech.	Use samples from therapy; provide a clinician-model; use ST samples, other materials
Modify additional goals from Table 5-1 or Table 5-2 as needed.	

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Chapter 6

Overview

SECTION 1: EDUCATION, IDENTIFICATION, AND COUNSELING (EIC)

These sections provide specific directions for using the lessons for EIC in the *Smooth Talking* Workbook. As such, voice of the narrative is changed to second person as clinicians are addressed directly. EIC can be incorporated regardless of the type of therapeutic approach implemented (stuttering modification, fluency shaping, or any integrated approach; see Table 5-1, Table 5-2, and Table 5-3 for a summary of potential treatment goals and related sheets). The purpose of EIC is not only to explore attitude, but to establish a clear mental schema of fluency and support the client's use of intelligent behaviors to establish and maintain fluency.

1. Examples of expert communications can be observed on the Training DVD. In addition, the clinician is strongly urged to read *Treating the School Age Stutterer: A Guide for Clinicians* written by Carl W. Dell and published by the Stuttering Foundation of America in 1996. Although Dell did not use the mediated learning terminology described here, his excellent incorporation of therapeutic dialogues in his text provides model ways of interacting with dysfluent children.

2. A high-stress context is any speaking situation that is associated with increased stuttering, cluttering, or client-reported elevation in anxiety about speaking. A low-stress communication context is one in which the client reports no stress while talking but is likely to demonstrate increased fluency during reading or speaking activities.
3. Model always refers to a live voice example of speech demonstrated by the clinician, some other adult, or the client.
4. Emphasis is placed on light articulatory contact, rate control, and easy onset of speech; the underlying assumption is to concentrate on periods of fluency and then increasingly extend those periods.

Caveat

The Workbook pages are intended to serve as conversation starters as well as introductory materials for new ways to manage communication. The introductory pages of the Workbook are for the speech-language pathologist, providing an orientation to the Workbook. Sometimes Workbook lessons provide talking models for the speech-language pathologist. Sometimes the Workbook lessons are written to speak directly to the child, with the clinician

monitoring the child's follow-up discussion. The Workbook is not intended for independent use by the child or adolescent; nor is the Workbook the primary activity for a therapy session. Clinicians are reminded that the variety of materials available in ST should be organized based on the needs of each client served. These materials include, though are not limited to: Clinician's Therapy Management Planning Sheet (Appendix C), the listening CD (with Track 1 for younger children and Track 2 for older children), and several board games for play and speech practice in Appendix D. Finally, central to therapy is the mediated learning framework outlined in detail in the first chapter of the manual and incorporation of maps (see Appendix A) and efficient cues to support children's and adolescents' progress towards stuttering management and effective communication.

Directions—Section 1: Education, Identification, and Counseling (EIC)

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute sample for parents

Introductory Lesson¹: Introduction to Terminology

Stuttering—see ST Workbook pages 2-5.

Stuttering-cluttering—see ST Workbook pages 7-8, and 10.

Cluttering—see ST Workbook page 10

Directions for Introductory Session on Stuttering

The ST Workbook pages 2 to 11 include definitions and illustrations of behaviors characteristic of stuttering. For example, repetitions are illustrated as triplets, prolongations are associated with the visual of a dachshund, and blocks are associated with a bear.

General Guidelines

Review the Training Video Companion, Mediated Learning Audio CD, and this Manual before implementing the program.

For nonreaders, encourage the child to follow along as you read.

For children ages 6 to 8 years old, the repetitions may be referred to as over-over words. Associate the actual terms with synonyms understandable to the client.

See the Appendices and use Map 1 to review concepts related to stuttering.

Section 1: EIC—Directions for Introductory Lesson on Cluttering

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute sample for parents

See ST Workbook, page 10. Cluttering is described as consisting of fast rate, jumbling words, and stop-starts (excessive revisions or word substitutions). The associated visuals are a boy running, a pile of cars to illustrate jum-

¹Some worksheets are introductory and should be used first; some lessons are extension lessons and should follow the introduction; review lessons should follow extension lessons. It is strongly suggested that the lessons in EIC be used first, followed by Section 2, CWIT.

bled words, and a woman with an overstuffed bag of falling groceries. The same guidelines as mentioned previously for stuttering also apply for cluttering.

Section 1: Directions for Introductory Lesson on Stuttering and Cluttering

Use the aforementioned lessons.

Section 1: EIC—Extension on Introduction: Discrimination/Attitudinal Survey

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

Stuttering—see ST Workbook pages 2-8.

Stuttering and cluttering—see ST Workbook pages 6-8 and 9-11.

Cluttering—see ST Workbook pages 10-11.

Directions for Identification of Stuttering

See ST Workbook page 4 (Listening). Use the sample videotape or audiotape vignette provided for this lesson. Question 3 addresses stuttering, but it is the clinician's discretion whether the client is trained during this session to identify particular behaviors.

Directions for Attitudinal Survey of Stuttering

See ST Workbook pages 5-7. The surveys are suggested regardless of whether there are

overt symptoms of emotional response to the stuttering.

Directions for Identification of Cluttering

See ST Workbook pages 9 and 11. Use the sample videotape or audiotape vignette provided for this lesson. Question 5 generally addresses cluttering, but it is the clinician's discretion whether the client is trained during this session to identify particular behaviors.

Directions for Attitudinal Survey of Cluttering

See ST Workbook page 10 (Listening). Use the questions that apply and add others as deemed necessary.

Section 1: EIC—EIC Review: Dysfluent Speech

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

Stuttering—see ST Workbook page 2, Maps 1 and 2 in Appendix A in Manual.

Stuttering-cluttering—see ST Workbook pages 9 and 11.

Cluttering—see Maps 1 through 3 in Appendix A of the Manual.

Directions for Review of Stuttering

For children who are readers, use the Word Find Puzzle on page 8 of the ST Workbook for review, and send the sheet home for parent review. Use the suggested Map Activity to review the speech behaviors associated with stuttering.

Directions for Review of Cluttering

Use the suggested Map Activity, Map 1, Appendix A, to review with the child speech behaviors associated with cluttering. Use Map 3 from Appendix A to identify the speech behaviors that typify the client.

General Guidelines for Mapping

Whether the children are readers or nonreaders, direct them to watch as you fill in the ovals to visually illustrate either stuttering or cluttering behaviors. After you fill in the central dysfluent behavior, probe to see if the child can identify the specific speech behaviors associated with stuttering or cluttering and write them as the child identifies them.

For younger children, use the standard type of print they are learning in regular class; for older children, use cursive writing as appropriate.

SECTION 2: CHANGING THE WAY I TALK (CWIT)

Eye Contact: Introductory Lesson

Materials

Workbook
Extra paper for mapping
Recorder for 5-minute therapy sample
Smooth Speech Map
Video vignettes

See ST Workbook pages 14-18.

Use as needed with any type of dysfluent client when eye contact is a significant concern.

General Guidelines

Review the previous ST lesson.

Read page 14 to the client and continue with the follow-up activities that appear on page 17.

For the follow-up activities on page 17, 5 minutes is the minimum amount of time to devote to each suggested activity. Time can be increased at the clinician's discretion. These activities could be extended over several sessions as needed.

Section 2: CWIT—Eye Contact: Extension Lessons

(Three activities) See ST Workbook pages 16-17.

Use as needed with any type of dysfluent client when eye contact is a significant concern.

Directions

On page 18, three activities are suggested that involve the child's use of good eye contact with members of the family.

Section 2: CWIT—Rate, Intensity, and Pitch: Introductory Lesson

Materials

Workbook
Extra paper for mapping
Recorder for 5-minute therapy sample

See ST Workbook pages 19-20.

Use as needed with any type of dysfluent client when there is concern regarding the client's awareness of volitional speech control.

General Guidelines

Review the previous ST lesson.

Have the client follow along as you read page 67. Continue with the exercises on page 20; model the sentences and words for nonreaders.

Section 2: CWIT—Bad Habits: Introductory Lesson (Accessory Features)

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

See ST Workbook page 22.

This lesson on bad habits is appropriate for any dysfluent client for whom accessory characteristics are a concern.

Directions for Lesson

The lesson on page 22 is brief. Before identifying bad habits associated with the client's speech, it would be useful to talk about bad habits in general.

Direct the child's attention to the illustration on page 33. The character pictured here has several identifiable bad habits: hair pulling, waving his arms.

Section 2: CWIT—More About Bad Habits: Introductory Lesson (Accessory Features)

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

See ST Workbook page 23.

This lesson on bad habits is appropriate for any dysfluent child client for whom accessory characteristics are a concern.

Directions for Lesson

The lesson on page 23 is brief. Before identifying bad habits associated with the client's speech, it would be useful to talk about bad habits in general. Direct the child's attention to the illustration on page 23. The character pictured here has several identifiable bad habits: hair pulling, waving his arms in the air when he talks, and grinding his teeth.

Section 2: CWIT—Bad Habits: Extension Lesson (Accessory Features)

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

The extension lessons are appropriate for any dysfluent client for whom accessory features are significant.

See ST Workbook page 24.

Directions for Bad Habits

Review the previous lesson and continue with the lesson on page 24. Lead the client in talking about the most serious of the bad habits (two or three), rather than a discussion of every bad habit.

Section 2: CWIT—Extension/Review
Lesson: Bad Habits (Accessory Features)

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

Interesting picture for description (not provided)

Map 9

Forms CD

Parent/teacher letter

The extension lessons are appropriate for any dysfluent client for whom accessory features are significant.

See ST Workbook page 25 for three extension activities for elimination of accessory features.

General Guidelines

Activity 2-10, page 25 (which involves family members to identify bad habits) should be im-

plemented with care. It is suggested that the identified family member attend a session and receive some guided practice before implementing this activity at home. Again, keep criticism limited; use negative reinforcement as a last resort if it is observed the client needs stronger cues to recognize and modify accessory features.

**SECTION 3: STUTTERING
MODIFICATION LESSONS (SML)**

Suggested lessons are for confirmed stutterers with moderate to severe stuttering.

General Guidelines

Stuttering modification lessons (SML) are a series of lessons to modify or decrease the severity of stuttering identified in older children with more severe problems. Table 6-1 is a list of the target dysfluencies, followed by the modified dysfluency.

Table 6-1. Targeted for Therapy

<i>Dysfluency</i>	<i>Target Modification</i>	<i>Comment</i>
Repetitions	Easy bounces	Negative stuttering practice Gradually speak with fewer bounces
Prolongations	Stretching	Reduce tension and lengthening
Blocking	Light Contact	Reduce lengthening and severity of blocks
All types	Cancellations	Modify dysfluency Modify dysfluency immediately after speaking
All types	Pullouts	Modify dysfluency during the moment of stuttering
Feared words	Practice	For older students

Section 3: SML—Suggested Lesson for Confirmed Stutterers with Moderate to Severe Stuttering

Materials

Workbook pages 25–49
 Extra paper for mapping
 Recorder for 5-minute therapy sample
 Interesting picture for description (not provided)
 Parent/teacher letter
 Forms CD

For bouncing—see ST Workbook pages 26–30.

For stretching—see ST Workbook pages 31–34.

For light contact—see ST Workbook pages 35–38.

For cancellation—see ST Workbook pages 41–44.

For pullouts—see ST Workbook page 44–46.

For feared words—see ST Workbook pages 47–49.

Section 3: SML—Overview

Materials

Basketball
 Flash cards
 Strings of different length
 Storybooks
 Games from Appendix D

Suggested lessons are for confirmed stutterers with moderate to severe stuttering.

General Guidelines

Stuttering modification lessons (SML) are a series of lessons to modify or decrease the severity of stuttering identified in older children with more severe stuttering problems. The table is a list of the target dysfluencies, followed by the modified dysfluency targeted for therapy.

SECTION 4: FLUENCY SHAPING TECHNIQUES (FST)

The suggested lessons are for children with dysfluent speech varying from mild to moderate severity.

Introductory Lessons

Materials

Workbook pages 52–59
 Extra paper for mapping
 Recorder for 5-minute therapy sample
 Lessons for stuttering or cluttering

Breath control—see ST Workbook page 52.

Phrasing and blending (breath control)—see ST Workbook pages 53–58.

Slow motion speech—see ST Workbook page 59.

The table shows target dysfluent behaviors and the shaping technique to increase fluent speech.

<i>Dysfluency</i>	<i>Fluency Shaping Technique</i>	<i>Comment</i>
Fast rate	Phrasing/blending; slow motion speech	Use games
Stop/starts	Breath control; phrasing/blending	
Phrase/word repetitions	Phrasing/blending; slow motion speech	
Jumbled words	Phrasing/blending	

Phrasing and blending—see ST Workbook pages 53–57.

Slow motion speech—see Workbook page 59.

Section 4: SMLs/FSTs: Post-Evaluations

Materials

Workbook

Extra paper for mapping

Recorder for 5-minute therapy sample

Parent/Teacher Letter

See Appendix C for Forms

Surveys are provided for cluttering and stuttering (see ST Workbook, pages 62–63).

Section 4: General Guidelines

Introduce one technique at a time. Combine these techniques with SML for more advanced stutterers who required may require an integrated approach.

As with previous lessons, have nonreaders follow along while you read the introductory lesson.

Only introduce as many techniques as necessary to establish fluent speech.

Make picture cards for the sentences in the unit, “What is phrasing?”

Section 4: Extension and Generalization Lessons

Breath control—see ST Workbook page 52.

General Guidelines

Some final comments may be helpful regarding post-evaluation, use of illustrations, and the CDs for use during a period of relaxation. First, the post-evaluation surveys may be used more than once with the same client, over the course of several rounds of treatment. For example, in a university-based clinic, the post-evaluation might be administered at the end of each semester of therapy.

Second, Figure 6–1 is an illustration of some of the strategies (10 of 12) for managing fluency. Recall from Chapter 1 and Chapter 4 that earlier work had discussed 13 strategies that were eventually combined for the 11 described for TG and JE in Chapter 4. The illustrations may be reproduced for individual clients and can be cut apart or attached to a journal or notebook as reminders for clients at different stages of therapy.

Mediated Learning: Encouraging Intelligent Behaviors in Children

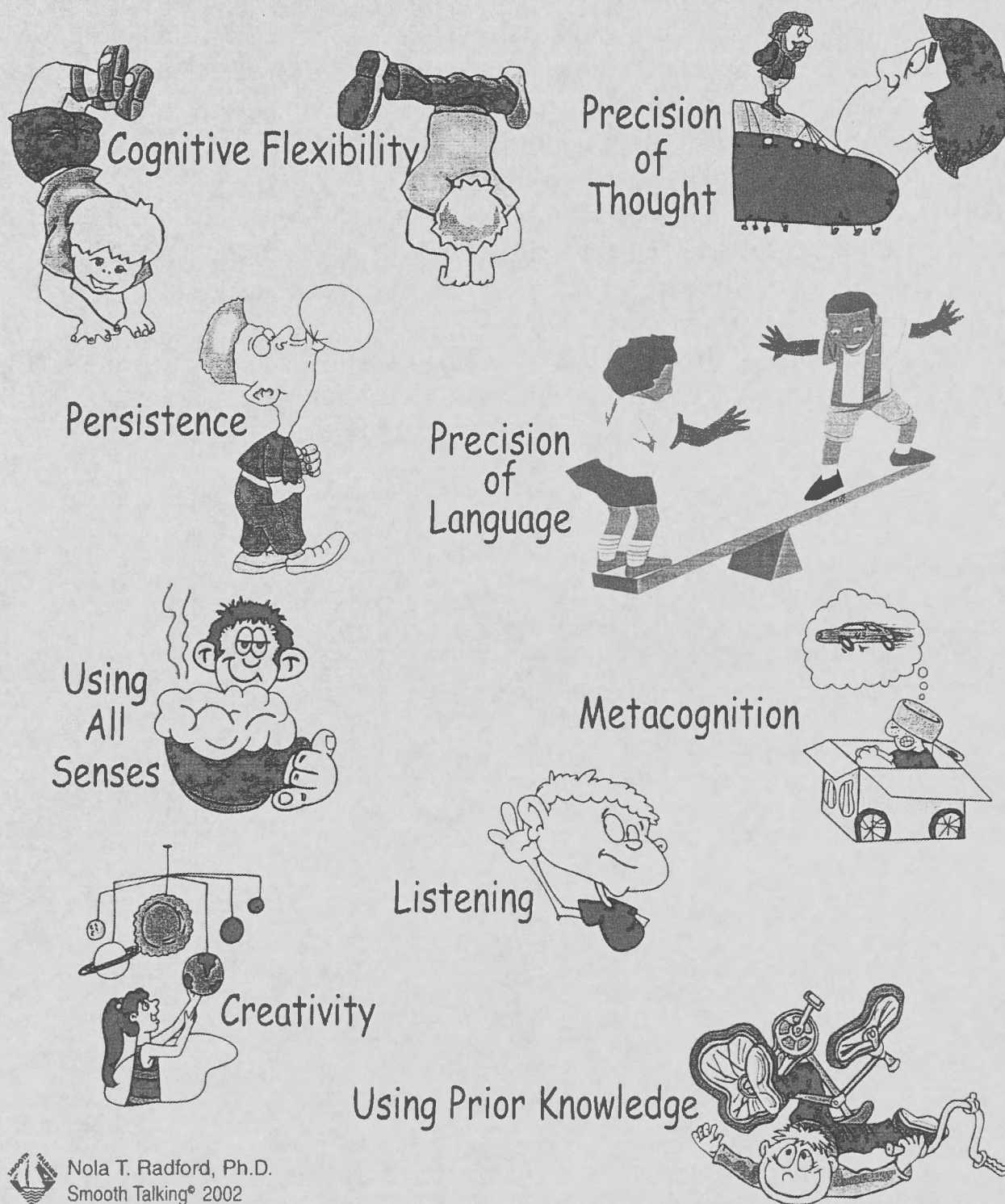


Figure 6-1. Illustrations that Can Be Used to Illustrate Ways of Thinking and Behaving to Manage Stuttering

Third and finally, the CD for influencing thinking about stuttering should be used after the initial stages of therapy. During the initial stage, successful therapy will result in the client's increased knowledge about her own pattern of stuttering, improved attitude regarding stuttering, and some ability to use strategies to maintain successful communication. A specific discussion of the CD for listening is not provided in conjunction with a particular worksheet; objectives and goals for incorporation of the listening CD are included in Chapter 5. The reader is reminded that the CD for relaxation and listening was incorporated in therapy for TG, reported as one of the case studies in Chapter 4. The CD should be used with

monitoring to determine if it is associated with improved attitude (examples include interview, pre- and post-drawings, as well as a variety of attitudinal scales that are available). Additional research is needed to determine the general usefulness of the CD. However, in the two cases reported here in which the CD was used, it was associated with positive changes in attitude.

REFERENCE

- Dell, C. W. (1996). *Treating the school age stutterer: A guide for clinicians*. Memphis, TN: Stuttering Foundation of America.

Appendix A

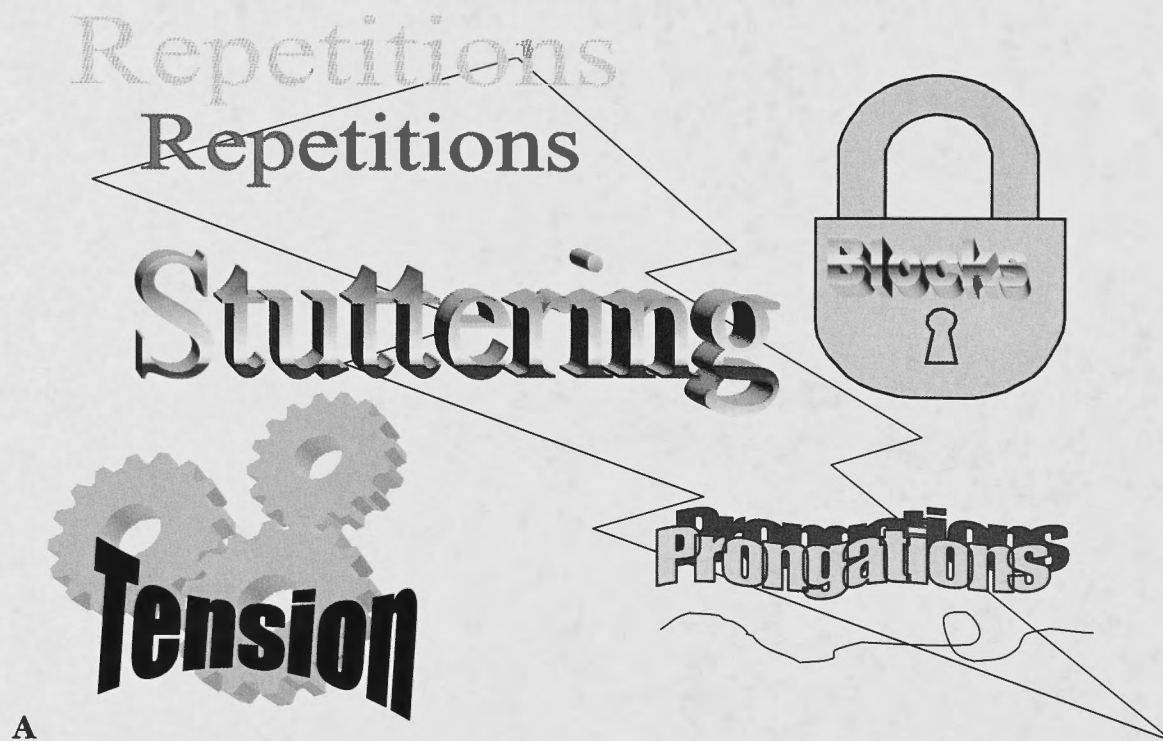
Visual Markers and Maps

The following maps can be used at different stages of therapy (counseling and education, identification of stuttering behaviors, influencing feelings and attitudes, addressing specific speech strategies for maintaining fluency or

modifying stuttering). The maps may be completed about one per session and used as reminders at home or in a personal notebook in the classroom.

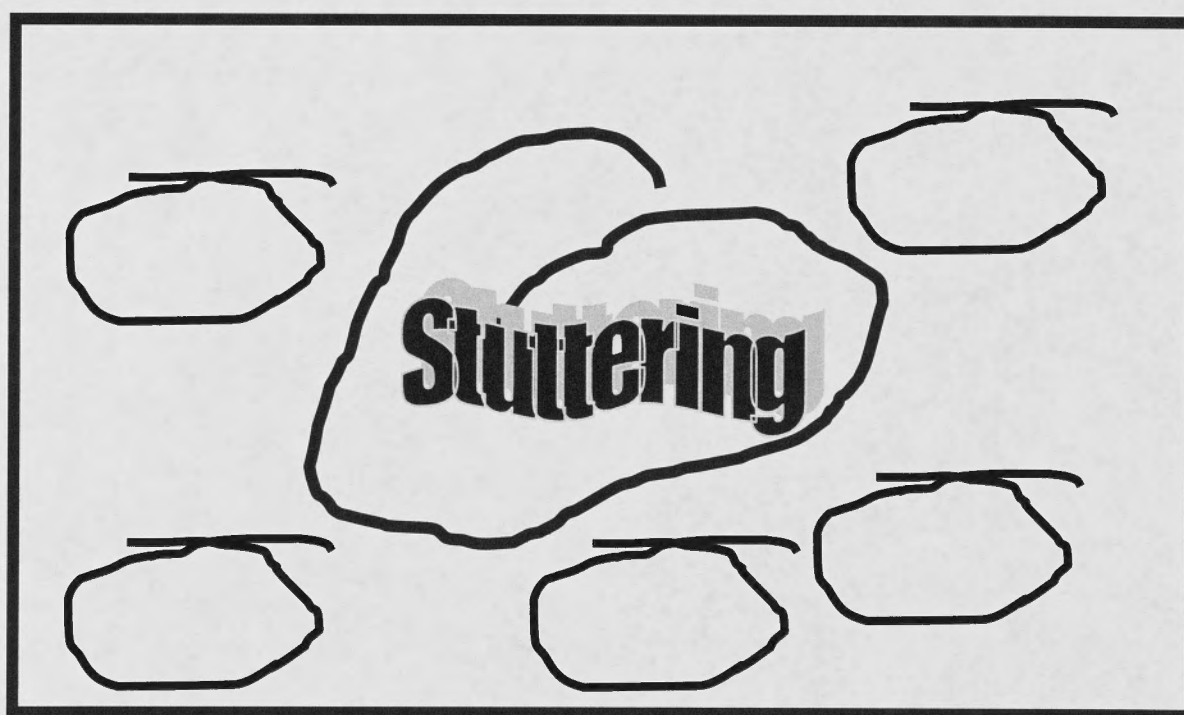
Map 1. Word Definition Map Example

This is a sample completed map for a child with all characteristics of stuttering present.



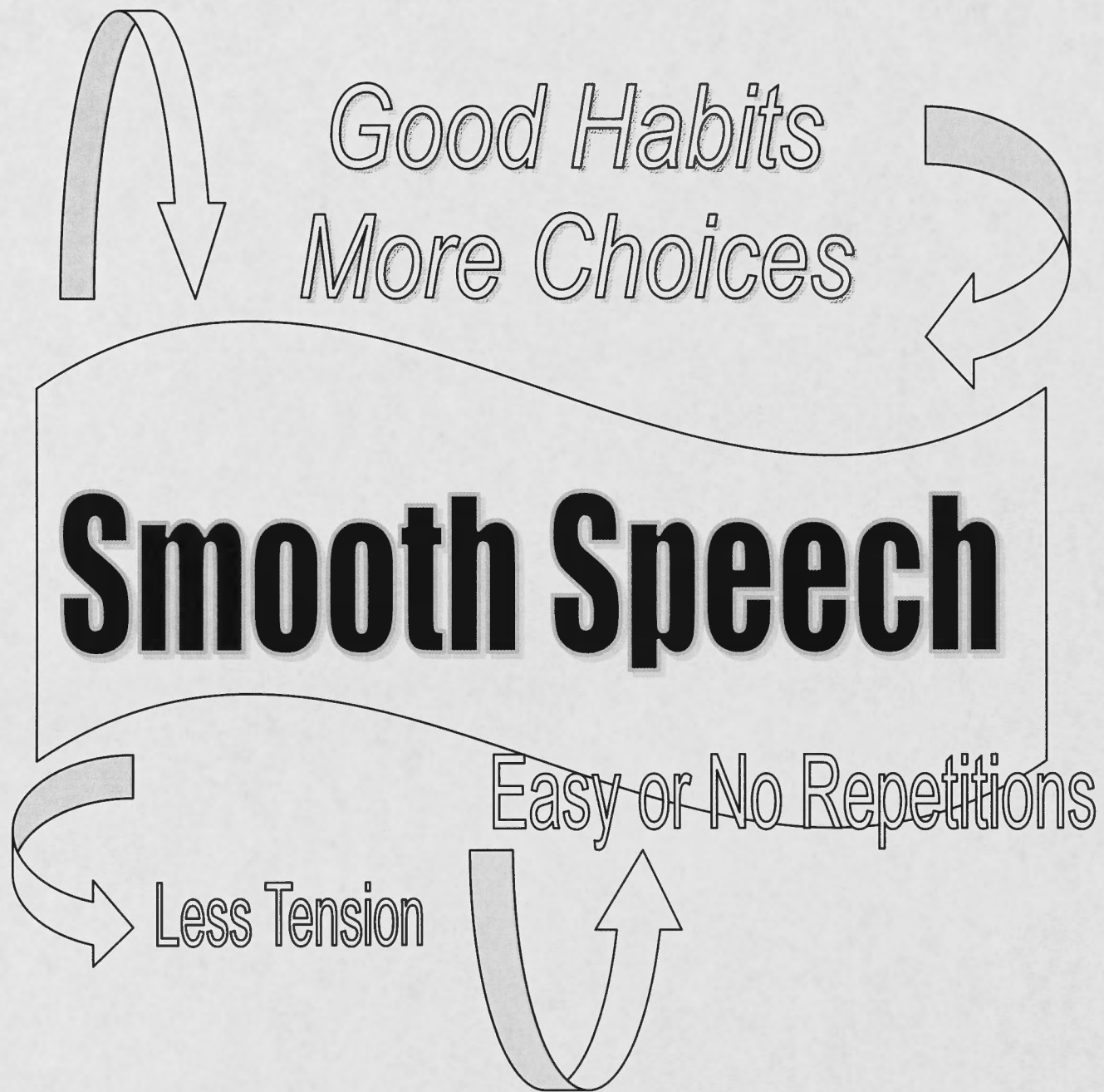
Map 1. Word Definition Map

Reproduce or copy the sample map below to review the characteristics of the client's own pattern of stuttering:



MAP 2. WORD ASSOCIATION MAP FOR SMOOTH SPEECH

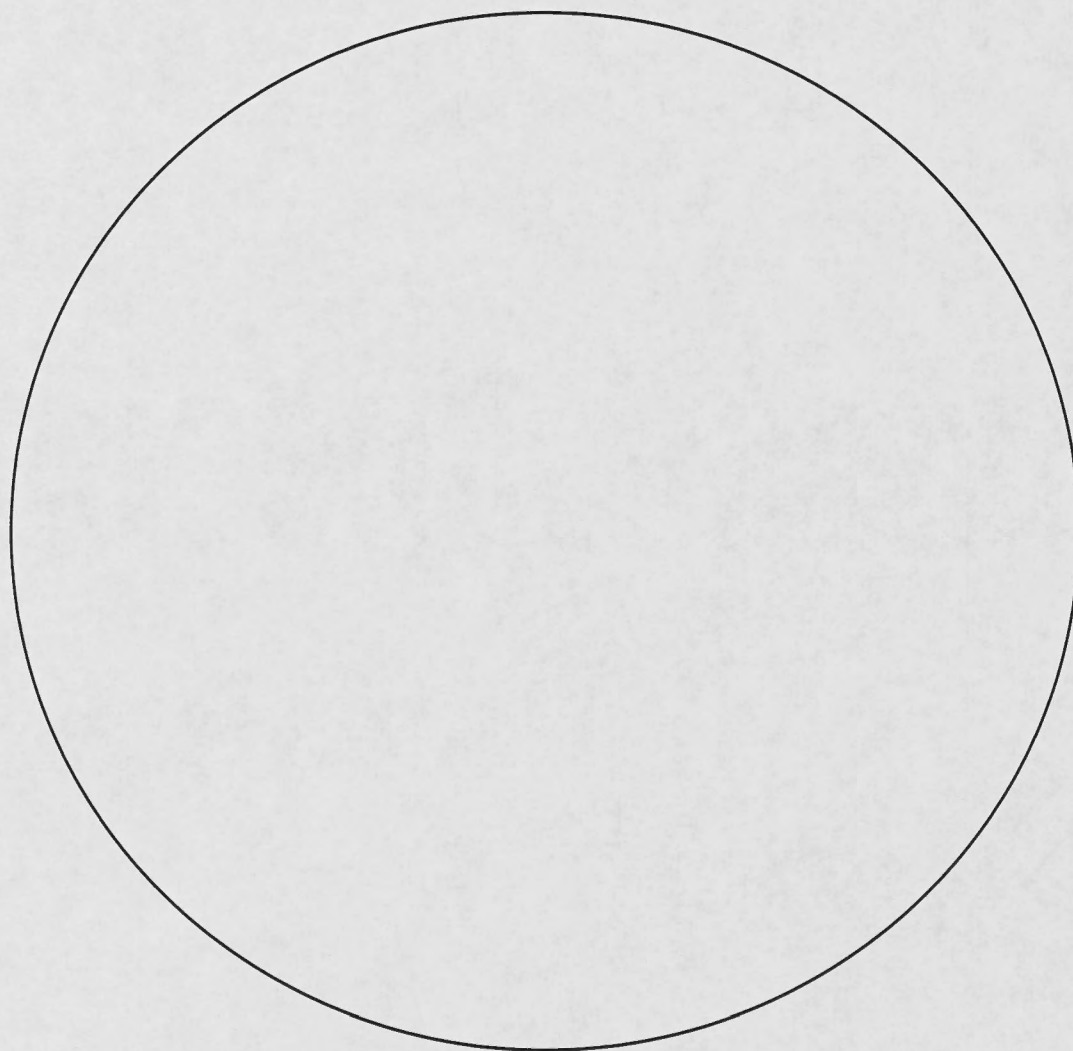
Sample Completed Map



A

Sample Map to Copy or Reproduce for Use With Client

Smooth Speech

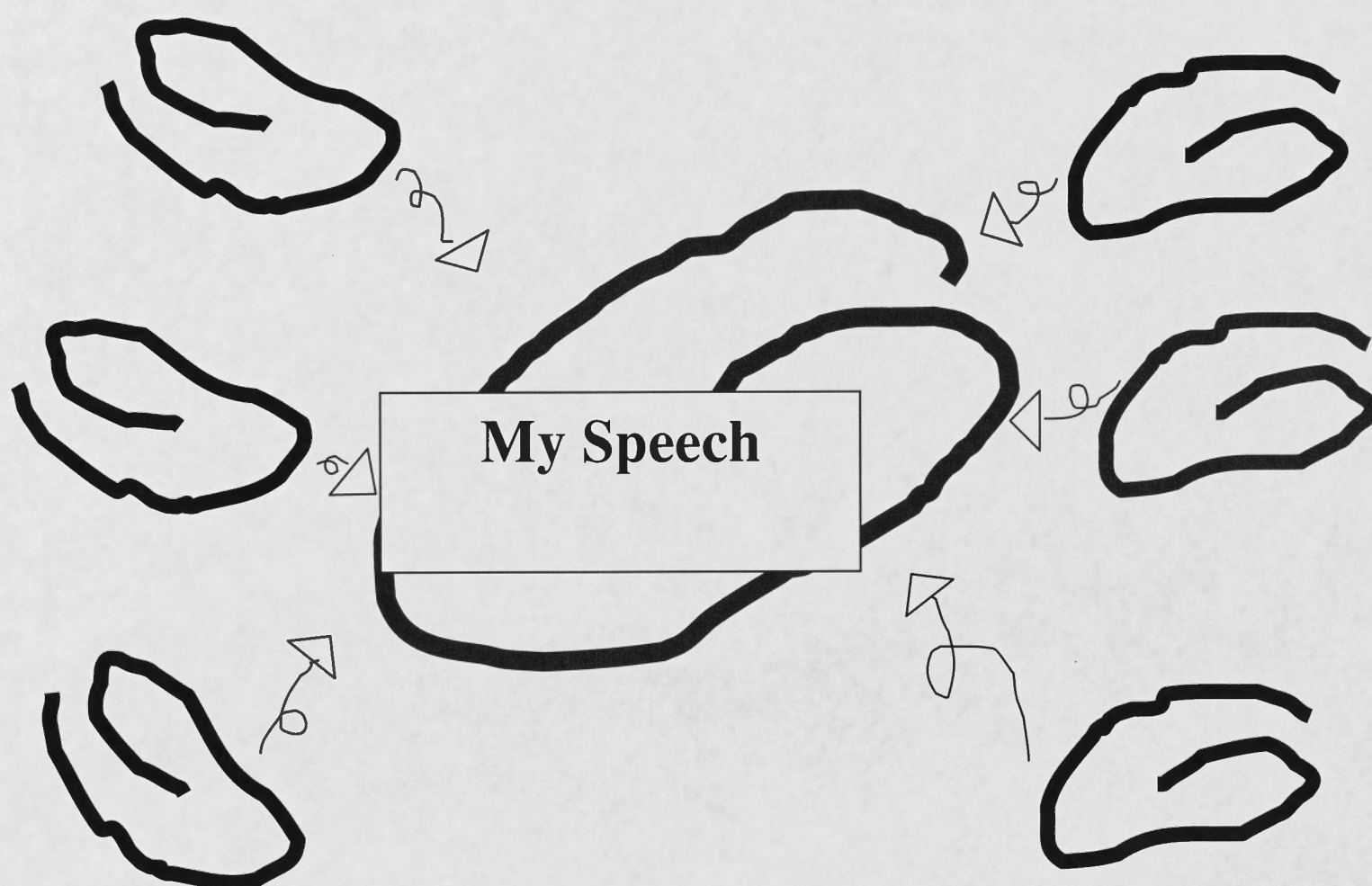


Write the characteristics of client's smooth speech around the perimeter of the circle.

B

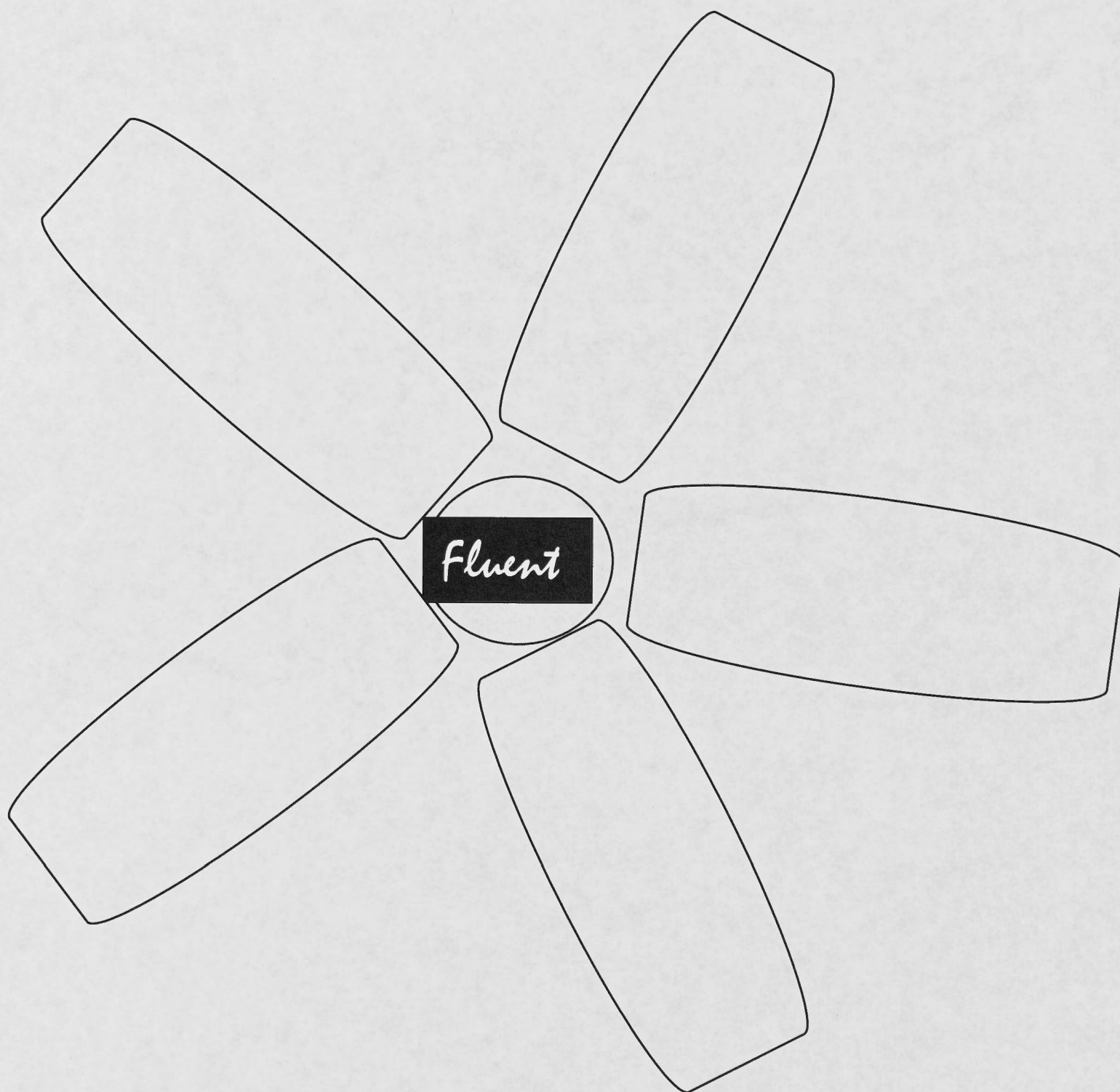
MAP 3. WORD ASSOCIATION MAP FOR SPEECH

Use this map with clients to illustrate personal speech characteristics.



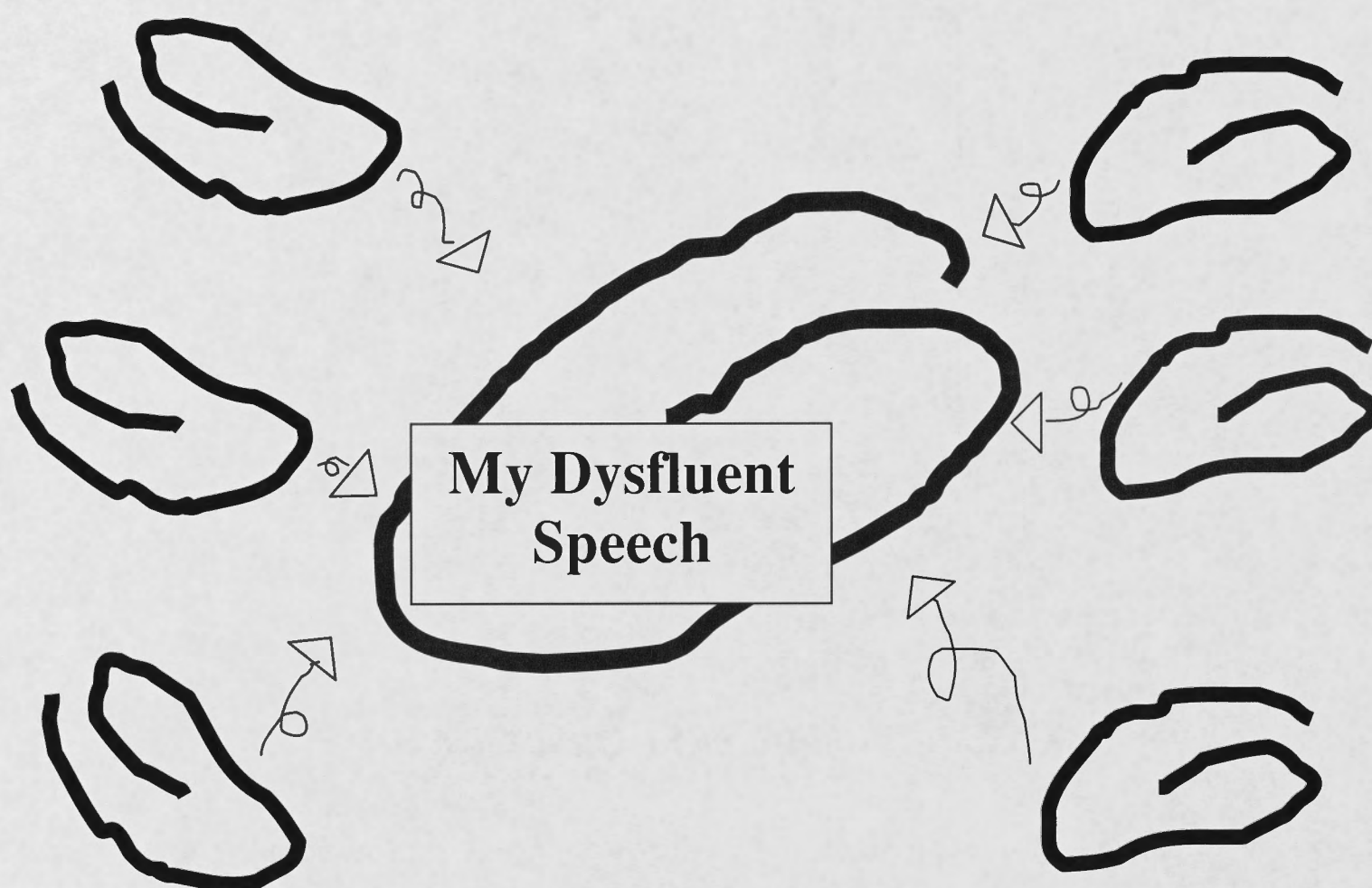
MAP 4. WORD ASSOCIATION MAP FOR FLUENT SPEECH

This map can be used to illustrate factors that support fluent speech. Other symbols can be used that appeal to the client.



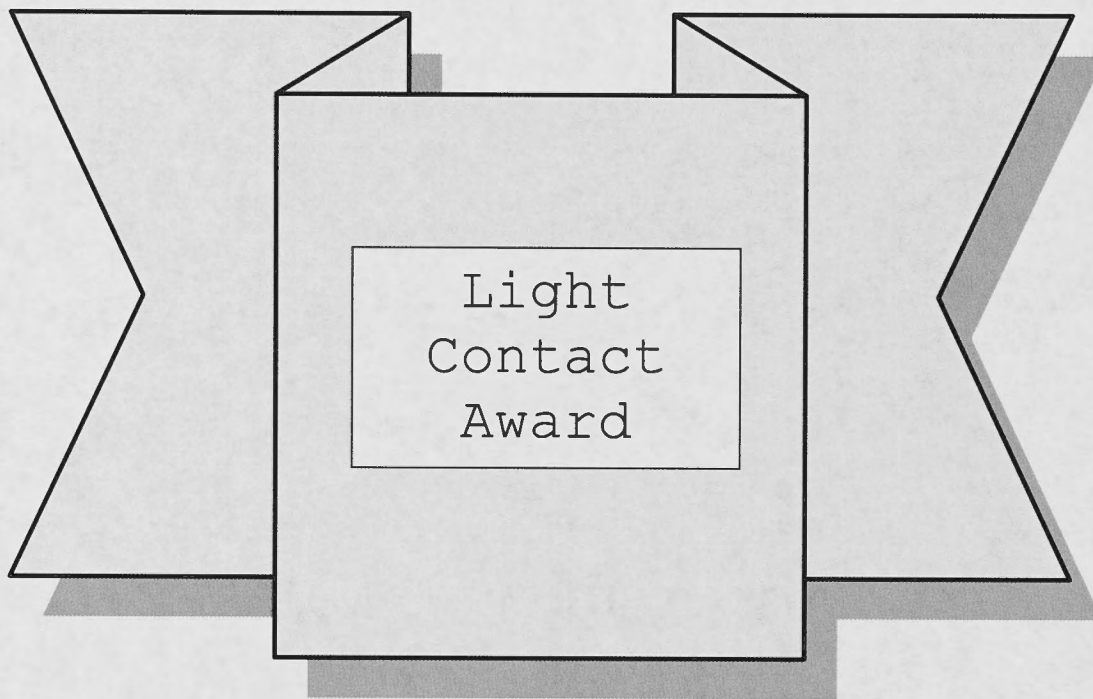
MAP 5. WORD ASSOCIATION MAP FOR DYSFLUENT SPEECH

This map is a variation on Map 3 to illustrate challenging speech behaviors.



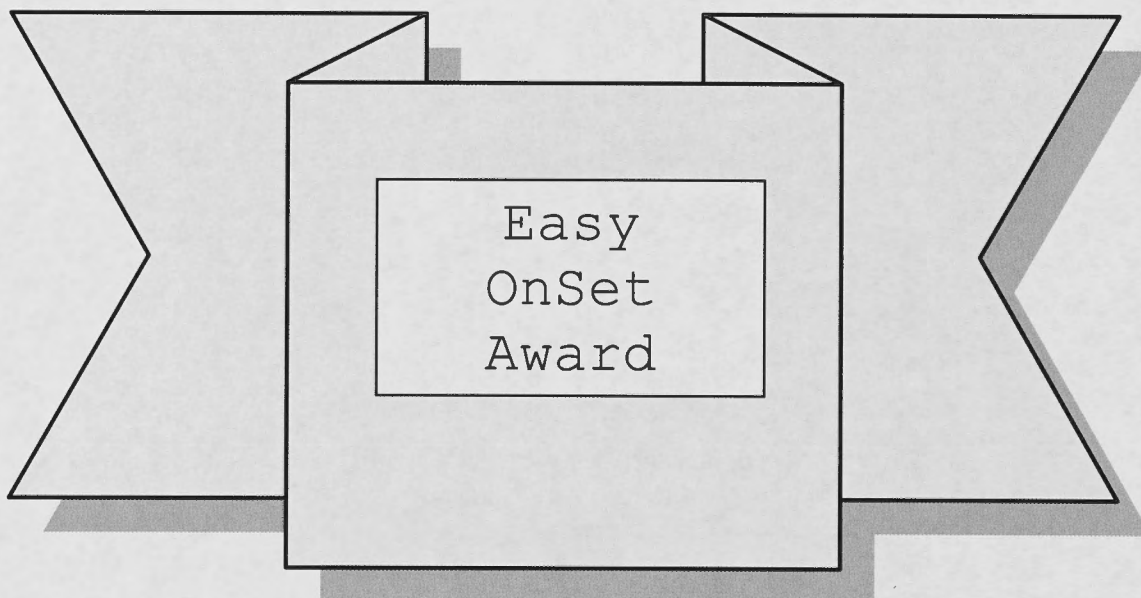
MAP 6. SAMPLE LIGHT CONTACT AWARD

Write points of contact on each tip of the illustration.



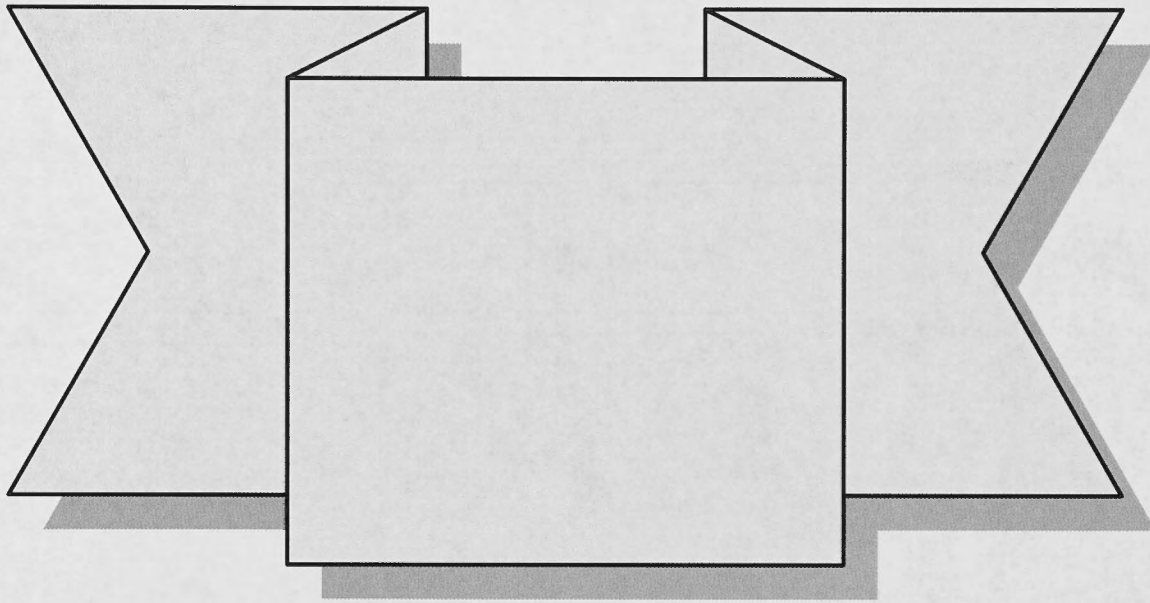
MAP 7. SAMPLE EASY ONSET AWARD

Photocopy and add client-specific items for fluency strategies used successfully.



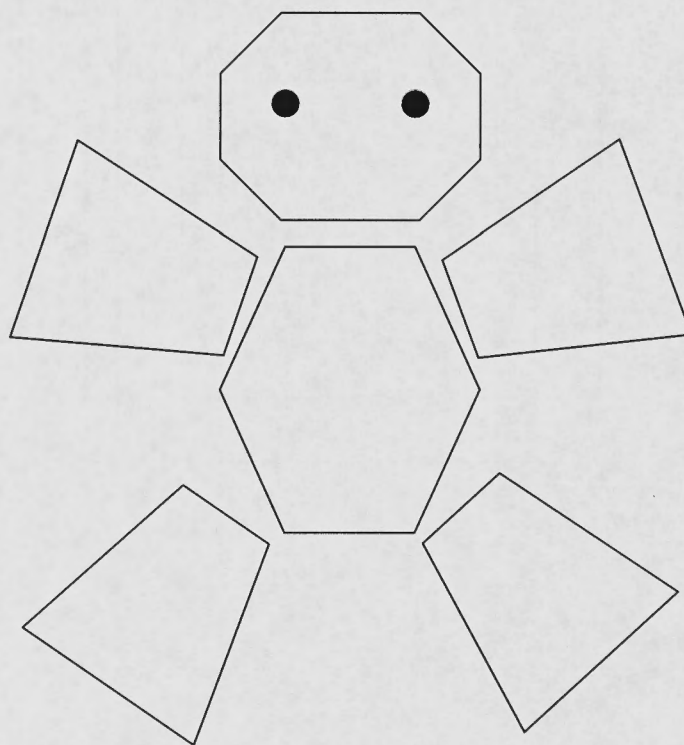
MAP 8. SAMPLE BLANK AWARD

Photocopy and add client-specific items for fluency strategies used successfully.



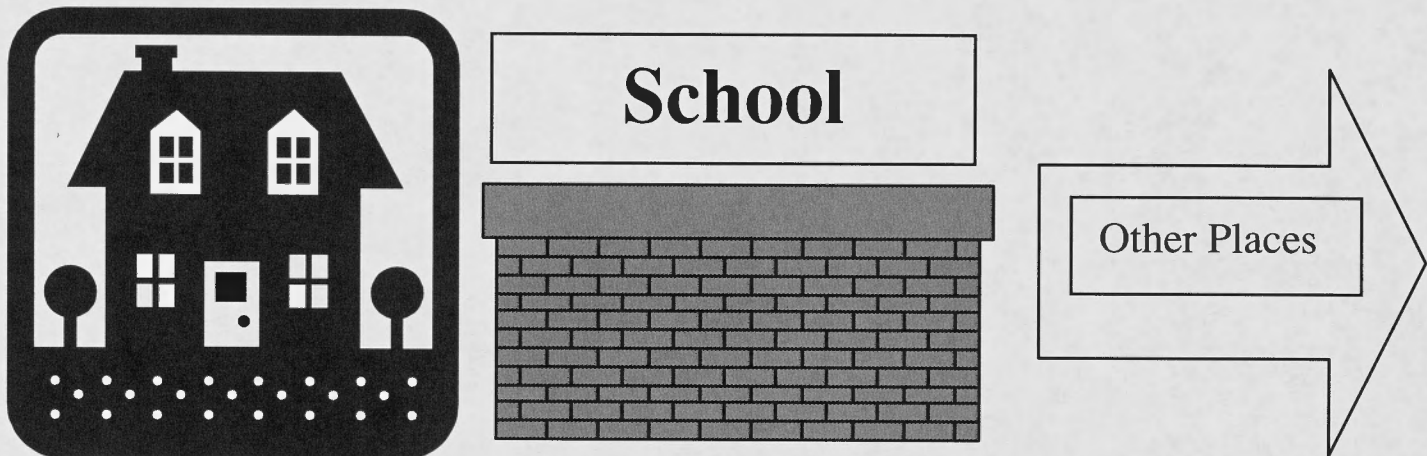
**MAP 9. WORD ASSOCIATION MAP FOR NONVERBAL BEHAVIORS
RELATED TO DYSFLUENCY OR FLUENCY**

This map can be used to illustrate distracting facial movements or movements of the extremities. The map can also be used to illustrate good use of gesture and body movements to enhance communication.



**MAP 10. TRANSFERRING NEW COMMUNICATION
MANAGEMENT EVERYWHERE**

This map can be used to prioritize speaking situations and assess the strategies that work best in different situations.



Home	School	Other Places
People:	People:	People:
Situations:	Situations:	Situations:
Strategies:	Strategies:	Strategies:

Appendix B

Words, Sentences, and Short Stories

CLINICIAN DIRECTIONS

- Appendix B includes lists of words, lists of sentences, and a variety of short stories that originally appeared in *Smooth Talking* (Radford, 2002).¹ There are subdivisions for target sounds when a child or adolescent has articulatory problems, feared words, or sounds that complicate talking.
- Use only those materials needed to supplement other therapy activities and to use as practice materials to send home. All sections do not have to be used. Materials should be selected based on client needs.

¹Words, sentences, and short stories are modified from worksheets, *Programmed Approach to Stuttering for School-Aged Children*, author and date unknown.

P AND B PRACTICE

Words with P and B

part	poem	barn	bend
peel	punch	boy	bump
piece	penny	best	brown
put	popcorn	black	before
pill	pickle	band	basket
place	plant	bet	believe
park	people	break	balloon
peck	pencil	boat	bottle
post	paper	bowl	bubble
pail	puppy	beam	baby
pole	pocket	bark	bakery
pot	possible	bunch	banana

Sentences with P and B

"You cannot buy much for a penny," said Polly.

Please put the pencil next to the paper.

Many people put scraps of paper in their pockets.

Is it possible to peel a pickle?

My package was placed with the other presents.

A pony may pick an apple from your pocket.

Take a big breath before you blow up the balloon.

Do you believe that our bowling team can beat the champions?

Arlene tripped on the bottom step and bumped the back of her head.

Bill is the best basketball player on our team.

Betty received a blue bicycle for her birthday.

Will you be busy after breakfast?



Short Stories with P and B

Peter is studying poetry in school. His favorite poem is "Paul Revere's Ride." Peter is trying to memorize this poem so that he can recite it at the assembly. He practices saying a part of the poem each night. Peter believes it will be possible to learn "Paul Revere's Ride" within a week's time.



Bob and Bill Brown wanted to form a baseball team. They asked their gym teacher, Mr. Benson, to help them. Mr. Benson let the boys use his bats and balls. And he helped them with their practice after school. Their team beat the Bluebirds by a score of 20 to 0.

Bonnie Bartless was a born borrower. She borrowed paper and pencils, ping-pong balls, boots, and everything else she needed. She even borrowed pennies, and it seemed that she was always in need of pennies. Bonnie's room was full of borrowed things. She had books, pins, purses, pens, and boxes of assorted things.

One afternoon four of Bonnie's friends came to visit her. They had decided to teach Bonnie a lesson. Patty picked up her book. Pam picked up her purse and scatter pins. Beverly picked up her ping-pong set and boots. Barbara picked up her pen, bracelet, and purple scarf. When the girls left Bonnie's house that afternoon, Bonnie's room was almost bare. Bonnie thought to herself, "I'd better not borrow anymore."



M AND N PRACTICE

Words for M and N Practice

much	minute	noon	Nancy
meat	marble	nose	neighbor
men	mister	night	nineteen
mail	measure	nice	number
moon	morning	noise	needle
March	Monday	knew	nickel
map	mountain	knife	narrow
meet	many	north	napkin
make	middle	knee	nothing
mouth	maple	nuts	newspaper
mother	mosquito	New York	numerator

Sentences for M and N Practice

My mother came to school this morning.

How many marbles does Martin have?

We're having a test on maps next Monday morning.

We saw many beautiful maple trees at the foot of the mountain.

Mr. Morris is our mailman.

The monkeys were bothered by mosquitoes.

Nancy reads the New York newspapers.

Number nineteen is the numerator in that fraction.

The neighbors knew nothing about the robbery.

In November we are moving to North Dakota.

Ned had a nightmare last night.

Do you know the name of the state that is north of North Carolina?

Short Stories with M and N



Mary's neighbors are flying to Miami in March. They will be gone for a month. Before leaving home, they will prepare a note for the mailman and the newspaper boy so these deliveries will stop while they are away. Mary's mother was asked to keep an eye on the neighbor's house while they are away.

Manny, the monkey, lived in the Lincoln Park Zoo. Manny ate vegetables and bananas, but he loved nothing better than fresh roasted nuts. Manny made nasty faces at the people who didn't throw him some peanuts. Manny's keeper, Mr. Newton, knew that Manny loved peanuts. At night, after the people left the zoo, Mr. Newton fed Manny a big bag of peanuts.



Nathan was a naughty boy. He never seemed to do anything right. He never wanted to go to bed at night. He never wanted to get up in the morning. At noon, he wouldn't eat his lunch. In the evening, he wouldn't eat his dinner. His dad felt he would never change. His mother was always saying no to him. Nathan's grandpa asked to keep Nathan for a month on his farm. Grandpa never nagged Nathan. The first night Nathan

stayed up all night, Grandpa made sure he had to fetch eggs from the chicken coops and weed Grandma's garden. Nathan worked from sunrise to noon. Grandpa was sure that Nathan didn't want any lunch, so he gave Nathan a water break and told him to keep on working. That night, Grandpa didn't have any trouble with Nathan eating dinner or going to bed. Grandpa was nice the next morning and let Nathan sleep in until five o'clock in the morning. Over the next 30 days, Grandpa worked all the nasty out of Nathan and found a pretty cool kid underneath. The following month, Nathan got to go home. His parents didn't have any more trouble out of him.

W AND WH PRACTICE

Words with W and Wh

wet	world	white	while
wink	wild	which	whip
walk	waste	why	whiff
wool	witch	where	whisk
west	waves	what	whirl
wash	window	wheel	wheeze
wish	winter	wheat	whistle
work	women	wharf	whether
would	wonderful	whale	whisper
worm	woodpecker	whack	whisker
war	Washington	when	wheelbarrow
way	watermelon	whiz	whippoorwill

Sentences with W and Wh

We went on a wonderful trip to Washington, DC, to witness the inauguration.

Wanda bought a new walkman last winter.

Would you wrestle with an alligator the way Crocodile Dundee would?

We watched Wilma swim with her water wings.

Wouldn't it be wonderful if we could end all wars?

The west wind is blowing through the open window.

I wish that I could whistle like a whippoorwill.

Whisper when you talk about witches.

Where, what, why, and when are often used to ask questions.

We saw a whale boat while we were standing on the wharf.

When will they harvest the wheat?

I don't know whether to choose the white-walled tires or the black ones.



Stories with W and Wh

Wanda was having a wonderful dream. She dreamed that someone offered her three wishes. She could wish for anything she wanted. First, she wished for one week's vacation in Winnipeg. Then she wished for one million dollars to build a new water plant in her hometown. Finally, she wished for a pet wombat. What would you wish if you had three wishes?



One evening we went out into the wheat fields to watch birds. While we were there, we saw many whippoorwills. We whispered so that we would not frighten the whippoorwills away. Finally, they got a whiff of us in the wheat fields, and they flew away. We whistled at them, but they didn't return.

T AND D PRACTICE

Words with T and D

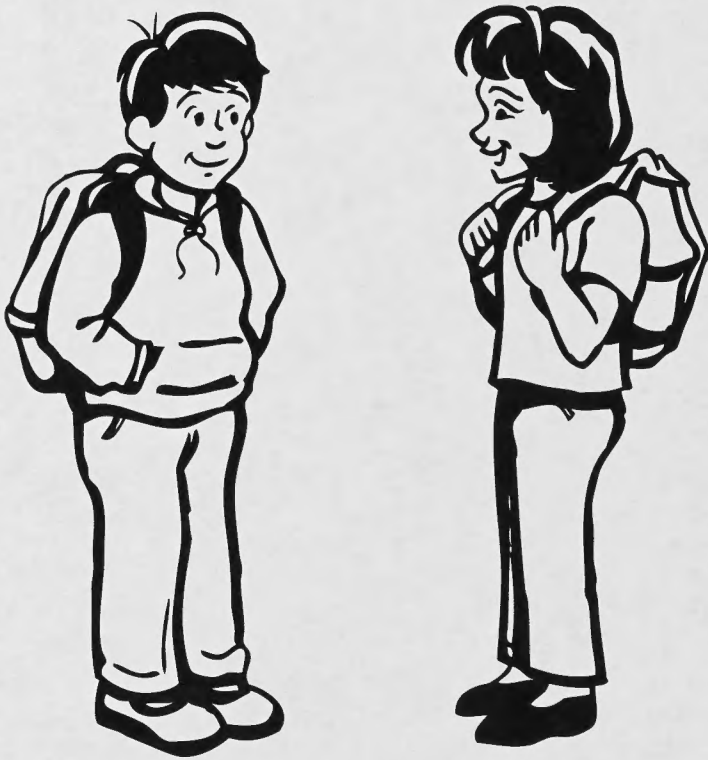
tear	turtle	dog	drink
top	today	dress	daughter
take	talking	doll	dollar
time	Tuesday	duck	dozen
twins	teacher	door	doctor
teeth	tiger	down	didn't
tongue	turkey	desk	dinner
ten	twenty	dream	December
twelve	table	drum	division
train	tomorrow	don't	Daddy
touch	telephone	Dutch	different
ticket	together	deer	dangerous

Sentences with T and D

Try to touch your toes with your fingertips.
 Tommy will be twelve on Tuesday.
 Our teacher is giving a test tomorrow.
 The train raced down the tracks toward town.
 Use the tip of your tongue to make the /t/ sound.
 Try to talk clearly on the telephone.
 Do you know how to do that division problem?
 David's birthday is in December.
 Don't eat dinner until Donald arrives.
 Mr. Tate's daughter wore a different dress each day.
 What did you dream about last night?
 Dad bought a dozen rolls for dinner.



Stories with T and D



On Tuesday, Mrs. Thomas is taking her class on a field trip. They will take the train downtown to the Art Institute. They plan to be there by ten o'clock and stay all day. Mrs. Thomas told the students to bring two dollars for lunch.



David and Donald came downstairs after dinner to help their mother dry the dinner dishes. As Donald was drying a glass, he tripped over the dog that was under the sink. Down Donald went! He dropped a glass on the counter and cut his finger trying to keep glass away from the dog down on the floor. His mother wanted to call a doctor. Donald had taken a first aid class and told his mother not to worry. He saw that the cut was not too deep. Dad helped to put a Band-aid on the cut.



Tomorrow, a dentist is coming to school to check everyone's teeth. All of the children in the first and fifth grades will have their teeth examined by the dentist. The dentist, Dr. Dailey, is going to use the teachers' lounge for his tests. He will see ten children at a time.

F AND V PRACTICE

Words with F and V

farm	feather	vest	vessel
field	factory	vent	violet
food	forget	view	valley
friend	football	vein	value
four	follow	vine	valentine
floor	fountain	vote	Volvo
find	flower	voice	vegetable
fix	finger	very	various
freeze	family	visit	Virginia
funny	fireplace	village	vacation
forest	fisherman	velvet	vinegar
Friday	February	vanish	vaccination

Sentences with F and V

Fred's father refinished a Volvo for fun.

We found a baby fox in the forest.

There are four children in Frank's family.

Freda reminded Phyllis to put fuel in the fireplace.

The farmer is working in the fields.

Frank is making funny faces.

We were vaccinated before we went on vacation to France.

Virginia sent me a valentine.

Some vegetables grow on vines.

Don't forget to vote in the village election.

Where did you buy that velvet vest?

There are violets blooming in the valley.



Stories with F and V

Fred was an avid football fan. His favorite football team was the Chicago Bears. Once, when Fred and his best friend, Marvin, received tickets to a game between the Bears and the San Francisco Forty-Niners, Fred's father, who was a sports photographer, invited them to the locker room after the game. That was one of the most exciting events in Fred's life.

The Victor family recently moved here from Virginia. They came in their Volvo, but their furniture was brought by a moving van. The Victors had lived in a very small village where they grew their own vegetables. Now, of course, they buy their fruit and vegetables at a supermarket. They hope to start a farmer's market near their new home. They plan to visit Virginia often, especially during summer vacations.



Floyd and Vicki Field go on a fishing trip every summer. They leave on Friday night after work and drive as far north as possible the first evening. By Saturday afternoon, they find a suitable place to camp. They usually find a spot in the forest that has a view of the lake. They begin fishing on Sunday morning. Floyd Field is a very good fisherman, but Vicki isn't able to catch as many fish as Floyd does. Last year the Fields caught fourteen fish.

K AND G PRACTICE

Words with K and G

call	car	girl	glass
keep	can	ghost	good
corn	king	give	game
calf	cost	gone	gift
cat	cow	gate	gold
card	curl	guess	geese
catch	count	goat	gear
cow	could	gun	gave
key	carry	go	garage
cold	corner	goose	garden
cake	cousin	got	going
cup	candy	gum	gasoline

Sentences with K and G

The cool wind gave Kathy a cold.

The cupcakes at my party will be decorated with tiny candy canes.

Can you carry Ruth's books?

It's very cold in the Antarctic.

Ronald spilled a cup of coffee on his new coat.

We bought pink cotton candy at the carnival.

The little girl gave Billy a gift.

Gail played games in kindergarten.

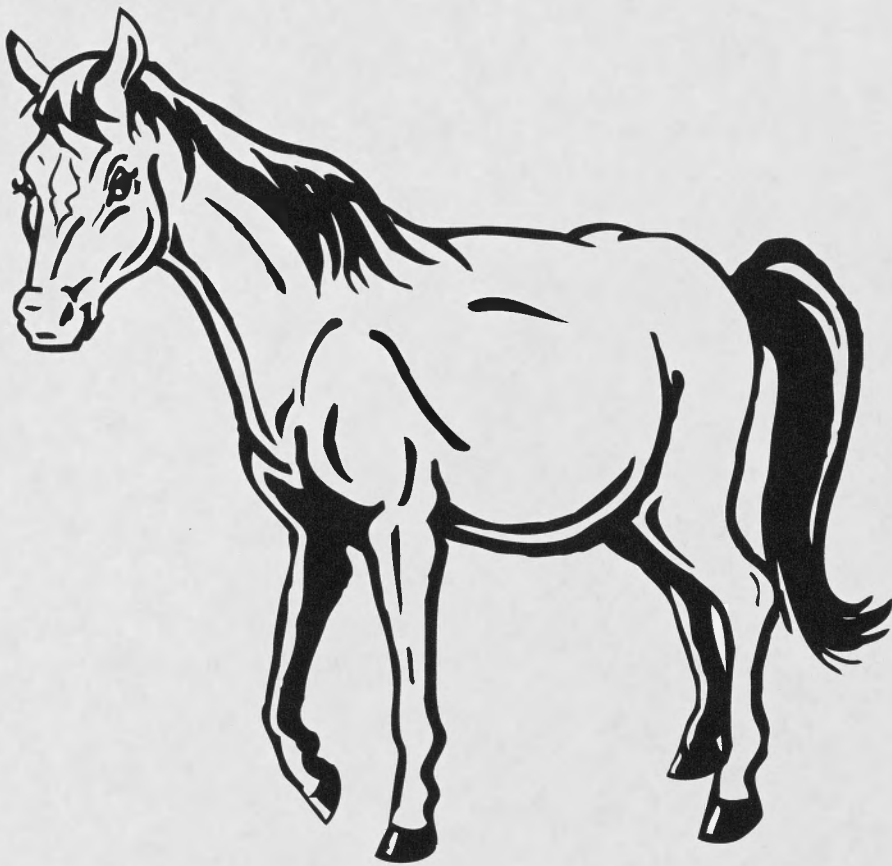
Gasoline taxes go up regularly.

Don't forget to close the garden gate.

Margaret has sunglasses with gold-colored frames.

Guns should be kept in a safe place under lock and key.

Stories with K and G



One summer, Connie visited her Uncle Carl and Aunt Kate on their farm. Connie liked to watch the cows and horses in the barn. She helped Uncle Carl feed corn to the chickens. She helped Aunt Kate can tomatoes and gooseberry jam. She played catch with her little cousin Timmy. Connie had a very good summer that year.

Gabby was a little gray ghost who liked to play games. He had to be careful so he would not frighten the children. He was harmless and a good ghost; however, a lot of movies show scary ghosts that give good ghosts a bad reputation. He liked to play games like hide and seek. He could always win because he could make himself invisible or go through walls when someone tried to catch him.



Y AND H PRACTICE

Words with Y and H

you	yawn	him	hungry
young	yolk	her	honey
youth	youngster	head	human
yarn	yardstick	high	hot dog
yacht	yourself	horn	hurry
your	yo-yo	his	hundred
yard	yellow	hand	hammer
yes	yodel	house	hanger
yule	yonder	help	hypnotize
yearn	Yankee	hunt	history
year	yesterday	have	hamburger
yet	Yosemite	heaven	hippopotamus

Sentences with Y and H

Did you buy some yellow yarn?

I bought yo-yos for the children.

Yesterday we saw Yosemite Falls.

You use three egg yolks in the cake batter.

You're the only one who wasn't yawning at the meeting yesterday.

I saw some yellow yarn in your front yard.

He hurt his hand with a hammer.

Henry's favorite foods are hamburgers and hot dogs.

The hypnotist told Harold to hold out his hands.

Whose house is a hundred years old?

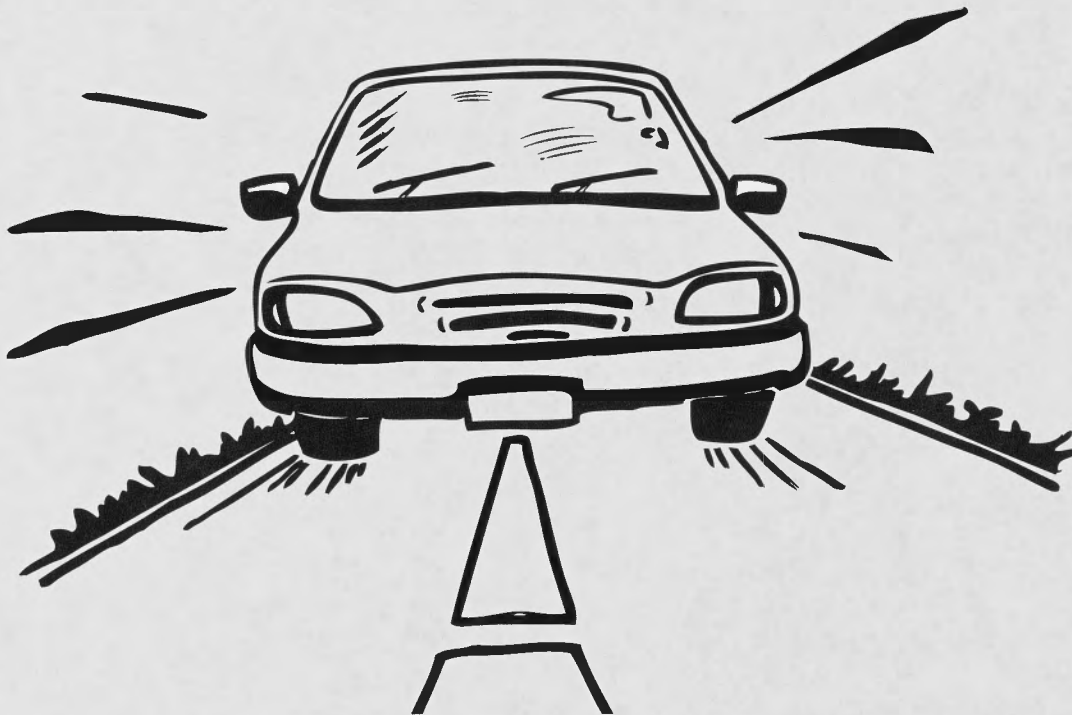
Hillary got one hundred on her history test.

The hungry bears were hunting for some honey.

Stories with Y and H



Yesterday the younger scouts were playing in the scoutmaster's backyard. They were pretending to be mountain climbers. First, they used yardsticks and imagined they were climbing the mountains in Yosemite National Park. Then, they pretended to climb the Alps and practiced yodeling into the wild blue yonder.



The State Highway Commission decided to build a new highway on Route 100. The highway will run right behind our house. There is a historical marker near our house, which will be moved to make way for the new highway. They hope to have the highway finished before the weather becomes too hot. I heard that a new hot dog stand is being built next to the highway to accommodate the hungry motorists.

L AND R PRACTICE

Words with L and R

look	lemon	rich	rocket
light	leopard	rest	robin
loose	lucky	road	raccoon
leave	little	red	Robert
laugh	level	right	raisin
length	leader	read	raining
lock	Lucy	ranch	rubber
lesson	library	ranger	remember
listen	liberty	river	relative
lady	lollipop	running	radio
lucky	locomotive	reason	refrigerator

Sentences with L and R

Leopards and lions live in the jungle.

The little girl lost her lemon lollipop.

Larry left his lunch in the library.

The locomotive leaves the Libertyville Station after lunch.

The carpenter measured the length of the library.

Linda called the locksmith to fix the locks.

The rabbit ran along the river road.

Ranger 6 and Ranger 7 are the names of rockets.

Robert found the roast beef on the right shelf of the refrigerator.

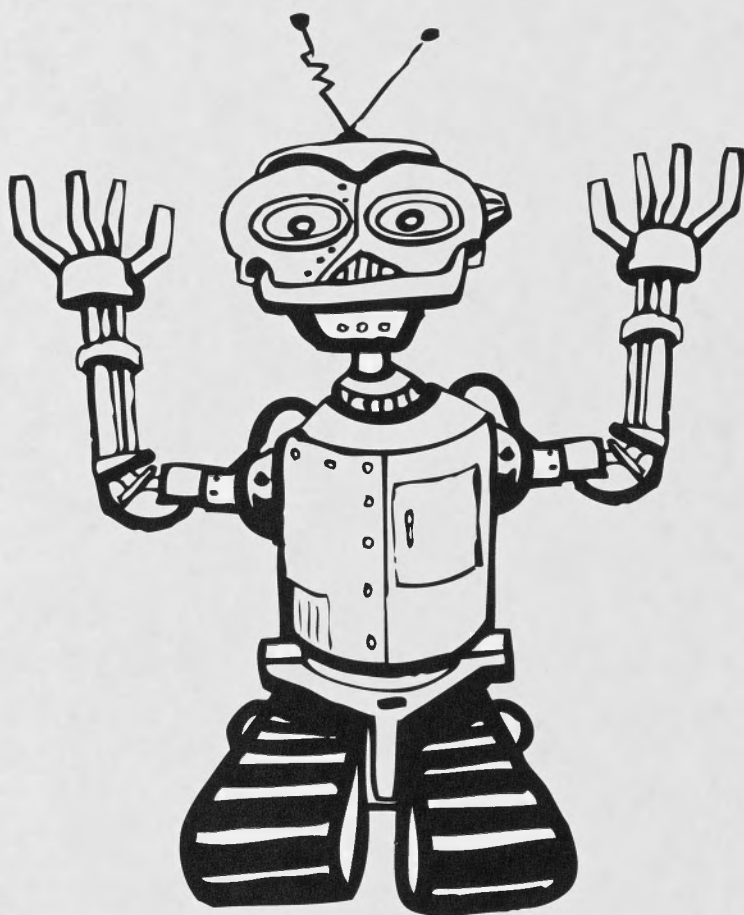
We were running races during recess.

What reason did your relatives give for remaining at the ranch?

Roland rode a bucking bronco in the rodeo at the Bar R Ranch.

Stories with L and R

Lady, the little baby lion, wandered away from her mother and became lost in the jungle. She looked at all the trees and even tasted the leaves. Suddenly, Lady heard a growling sound. She looked around. She stood still and listened. Lady became very frightened and leaped into the tallest tree she could find. Then she heard someone laughing. She looked down and there was her father, the leader of the lions. Lady's father laughed and laughed at his daughter. "Now, you've learned your lesson," said Father Lion. "You won't wander away from home anymore."



Robby, the robot, belonged to Mr. Roberts. Mr. Roberts was a scientist who built rockets. In fact, Mr. Roberts helped plan the Ranger 7 rocket that went to the moon. At night, Mr. Roberts liked to tinker in his workshop, and that's when Robby, the robot, was invented. Mr. Roberts remembered reading a story about how helpful robots could be, so he decided to build one of his own. Robby obeyed every command. When Robby wasn't busy, he liked to listen to the radio or read children's stories.

S AND Z PRACTICE

Words with S and Z

sort	sport	zoo	Zelda
safe	seem	zip	zebra
sneeze	sip	zinc	zephyr
soap	sand	zone	zipper
sell	summer	zeal	Zip code
sense	simple	zest	Zurich
sat	cellar	zing	zealous
seed	salute	zoom	zinnia
some	sonic	zigzag	zwieback
sick	sardine	zenith	xylophone
cent	Saturday	zero	zoology

Sentences with S and Z

Steven went to a double header baseball game last Saturday.

The sonic boom disturbs some people.

During the tornado the children sat silently in the storm cellar.

Sara's father is a soap salesman.

Some sports are more strenuous than others.

The sergeant saluted the major as he passed.

Sandra saw many zebras at the zoo.

Susie's Zip code was 60676.

Roger zipped down from Zurich for the weekend.

Zelda planted zinnias in her backyard.

The Los Angeles Zephyr zoomed along the tracks.

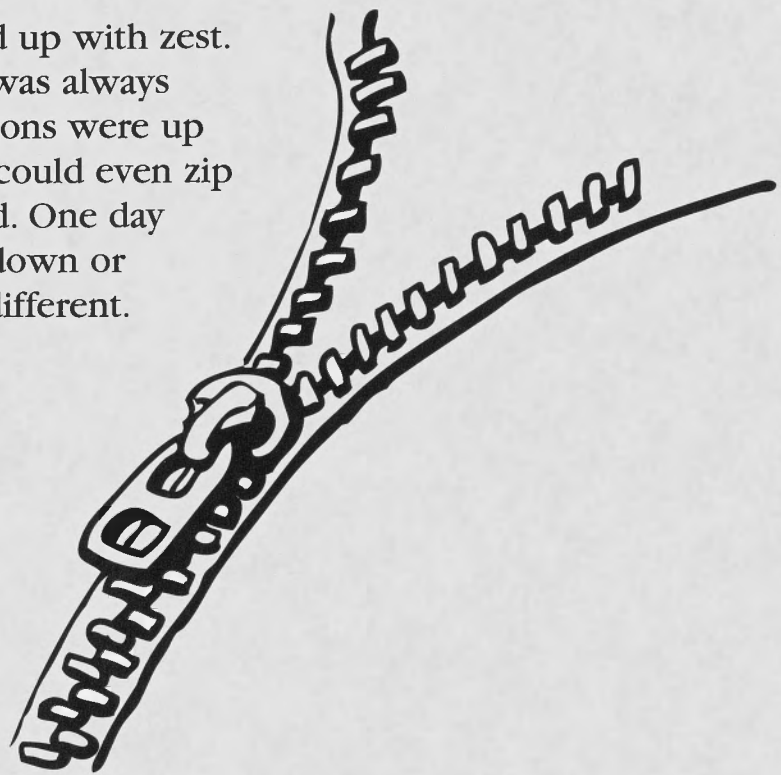
The sun was at its zenith in the equatorial zone.

Stories with S and Z



Sammy was very interested in sports. During the summer, he played baseball and tennis. He often went sailing and water skiing on the lake. During the winter months he skied or went ice skating on the lagoon. Sammy was a busy boy!

Zippy the Zipper was made of zinc. He zipped up with zest. He zipped down with zeal. Zippy the Zipper was always zipping all over the place, that is, if the directions were up and down, or across and back. Sometimes he could even zip around if the around was not too small around. One day Zippy, who had grown tired of going up and down or across and around, decided to do something different. He went zigzag. And zat was ze end of Zippy!



SH, CH, AND J PRACTICE

Words with Sh, Ch, and J

sheep	chair	junk
shorts	chief	join
show	chalk	jazz
shoes	check	John
ship	chain	Jane
shoot	charm	jar
shell	cheese	jam
share	church	joke
shrimp	chew	jet
shine	charge	jump
shark	chase	journey
shirt	chicken	jacket
she	chapter	junior
shy	China	jury
shake	Charles	giant
shadow	children	gentle
shampoo	chipmunk	Jeffrey
shoulder	charcoal	Japan
sugar	chilly	jealous
shovel	cherry	July
shiver	chimney	gelatin
shepherd	chocolate	general
sheriff	charity	janitor
shopping	chimpanzee	January

Sentences with Sh, Ch, and J

The sheriff shot at the dark shadow.

Shirley bought new shoes, shirts, and shorts when she went shopping.

We saw a shiny shark's tail next to the ship.

A shepherd's job is watching herds of sheep.

We had chicken and cherry pie at the church dinner.

Charles was collecting money for Chinese charities.

How much did they charge you for a cheese sandwich and the chocolate milk?

The chimpanzee had the chalk under the chair.

June and July are summer months.

The general led his men on the long journey through Japan.

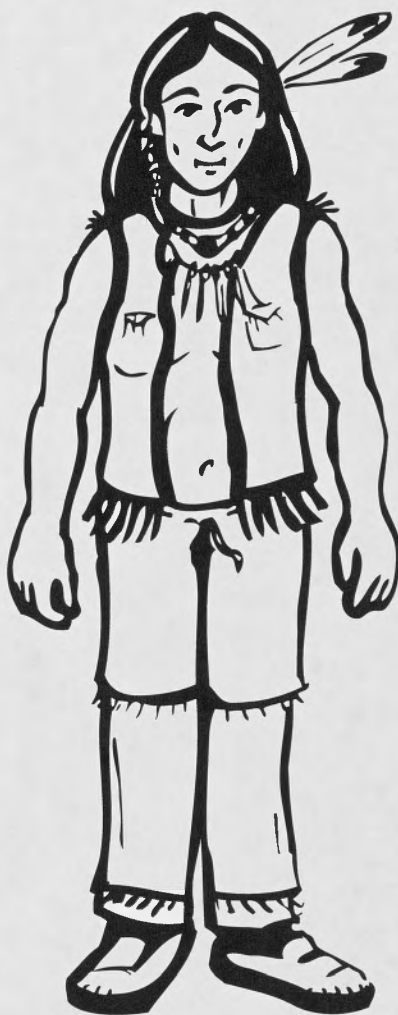
Mr. Johnson joined the Air Force to become a jet pilot.

The janitor played a joke on John and James.



Stories with Sh, Ch, and J

Did you ever hear of a shy shark? Well, Sheryl Jones knew all about one. Every morning, when the sun was shining brightly, the shy shark would swim around Sheryl's ship. Sheryl would shake a stick at the shark, and he would swim away as fast as he could. The shark liked to play with seashells, but he was too shy to swim close enough to shore to get them. Why, this shy shark was even afraid of little shrimp!



The children in Chuck's room decided to put on a play. They found just the right play in Chapter Two of their reader. The play was about a Chippewa Indian chief who wished that he could find a way to chase the chipmunks from his land. Chuck played the part of the Indian chief. The children learned a lot about the Chippewa Indians from their play.

Janet put on her old jeans and went outside to help the janitor collect the junk from the porches. Janet hoped that she might find something useful among all the junk and she wasn't disappoint-

ed. Just imagine finding some Japanese jewelry in the junk box! Janet thought someone had thrown it out as a joke, but the janitor, Mr. James, said that she could keep it. When Jan and Jeffrey saw what Janet had found, they joined in the search for more treasures among the junk.



TH PRACTICE

Words with Th

thin	thirst	this	they
thing	threat	the	thee
thank	thump	that	thine
thumb	thunder	these	thou
thick	thorough	those	thy
thought	Thursday	then	themselves
three	thirteen	them	thereas
thread	thirty	there	therefore
throw	thimble	than	therein
throat	thistle	their	thereby
threw	thousand	though	thereafter
third	Thanksgiving	thus	thereabouts

Sentences with Th

I think Thelma had a sore throat on Thursday.

Don't throw any thread on the floor.

Will you thank Theodore for the birthday gift?

I thought I heard some thunder.

Thanksgiving is always on the fourth Thursday in November.

There are thousands of grasshoppers in that thicket.

These things belong to them.

These books belong to them and everything else belongs to us.

Thee, thine, and thou are poetic terms.

They wanted all the candy for themselves.

Give them their thimbles now!

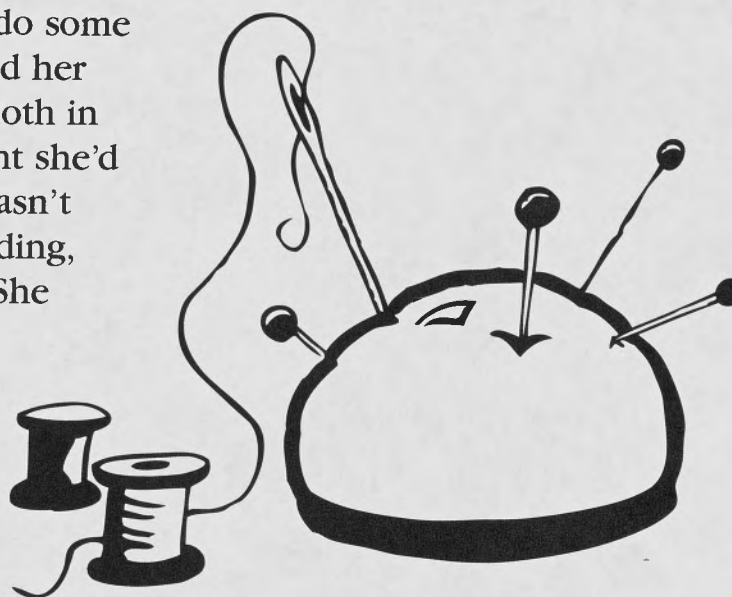
Thursday is the fifth day of the week.

Stories with Th



In America, Thanksgiving is celebrated on the fourth Thursday in November. This holiday has been set aside to enable people to give thanks for the many blessings they have received throughout the year. Thousands and thousands of turkeys are served for Thanksgiving dinners along with dressing, sweet potatoes, and pumpkin pie.

This morning, Theodore's mother was ready to do some sewing when she realized that she could not find her thimble. She had her needle threaded and the cloth in her lap as she began looking around. She thought she'd better hunt through her sewing basket, but it wasn't there. Then she looked through her pile of mending, and still the thimble was nowhere to be found. She thought and thought about where it might be. Suddenly she remembered that she had thrown the thimble away because it had never stayed on her finger. She picked up the cloth and the threaded needle and finished her sewing without a thimble.



VOWEL PRACTICE

Vowels in Words

ache	Asia	add	apple
ail	ailment	and	atom
ate	apron	ax	ashes
eight	agent	apt	action
age	eighty	as	after
ape	aimless	an	animal
aim	acorn	act	agony
aid	acre	at	absolutely
odd	olive	all	often
art	honor	off	auto
ark	opera	ought	awkward
arm	arson	author	almost
arch	arcade	office	auction
honest	onset	awning	already
argue	army	autumn	automobile
onward	operate	awful	automatic
elk	engine	each	easy
egg	every	eel	eaten
else	etching	eve	evening
elm	ebony	eat	equal
any	elephant	east	either
ending	excellent	eager	even
enter	elevator	Easter	erase
extra	escalator	eagle	easel

Sentences with Vowels

The agent sold eighty acres of land to me.

The ape came to the zoo from Asia over eight years ago.

Alan fed apples to the animals.

For some people, adding is as easy as pie.

Arthur attended his first opera the other day.

The army marched onward.

The author almost had an automobile accident.

You ought to take the awnings down in autumn.

Edward likes escalators better than elevators.

There is a huge elephant near the entrance to the museum.

Eve was eager for Easter to arrive.

It is easy to erase the board with new erasers.

Each of the extra helpers entered through the north elevator.

Elk are plentiful in every wooded area in Canada.

Honesty is still the best policy if you act according to your conscience.

Look under Indians in the index.

Is the ink in the drawer?

Iris didn't eat her ice cream in the grocery store aisle.

I wish I had a new iron.

Don't leave until you've put your umbrella away.

The other day I fell asleep under an elm tree.

It took us an hour to finish our outline.

We found ourselves outside of an old castle.

Put the oysters in the pot on the oilcloth.

He left the jar of special ointment with Lloyd.

The youth played his ukulele for the Yule celebration.

You can use the library for information on your unit.

The old man ate oatmeal every morning.

There was an odd aroma over the island.

Stories with Vowels

Mr. Edwards was an old man who lived on Elm Street. One summer evening he walked down Elm Street, nodding to everyone he met. One dark evening, Mr. Edwards heard some odd sounds. "Ooooooooooooo, ohhhhhhhhhh, owwwwwww," he heard. "Is it elves or some strange animal that I hear?" he asked. Mr. Edwards began to investigate. The sound echoed louder and louder. All of a sudden Mr. Edwards came upon two huge, oval-shaped eyes, and then he realized what had been making the strange noises. Can you guess what it was?

Ida, the Asian ape, was brought to the East Island Zoo when she was only eight months old. When she came, Ida refused to eat any vegetables. She would touch nothing but oatmeal. Every day Mr. England, her keeper, would patiently spoon out oatmeal for Ida. This kept up until one fine autumn afternoon when a young boy threw a delicious red apple into Ida's cage. At first, Ida just sniffed at it, but her eyes were getting bigger all the time. At last the aroma got the better of Ida, and she took a big bite. After that first bite, Mr. England never had any trouble with Ida's diet.

Appendix C

Clinician Forms

CLINICIAN'S THERAPY MANAGEMENT PLANNING SHEET

Client: _____ DOB: _____ Age: _____ Date: _____
Parents: _____ Address: _____

Occupation/Work Address/Phone/Mobile or Pager (Dad):
Siblings: _____

Occupation/Work Address/Phone/Mobile or Pager (Mom):
Best Friends: _____

After School Schedule (If in Day Care, list address/ phone)

School Information

School: _____ Teacher: _____ Grade Level: _____
Address: _____ Phone/Fax: _____
E-mail Addresses for Teacher/Counselor/Others: _____

Comments re: performance in school—academic, social: _____

Fluency Profile

Developmental History Pertinent to Communication/Fluency: _____

Medical History/Health: _____

Summary of Prior Treatment for Fluency and Results: _____

Experience with Prosthetics (Check the appropriate boxes)²

☐ Masking Noise ☐ Delayed Auditory Feedback ☐ FAF

Recommended Treatment Strategy (Check the appropriate box):

☐ Stuttering Modification ☐ Fluency Shaping ☐ Integrated

Treatment Goals for Stuttering Management: (See Sample Goals Provided in the Manual)

Proposed Period of Treatment: _____

Recommended Sequence of Lessons and Strategies

Note: Recent case studies (Radford & Tanguma, 2007) indicate that intense therapy of 40 or more hours was associated with significant improvements in stuttering management. In a university setting, a 10- to 15-week course of treatment is recommended, followed by postassessment to determine the need for continued therapy or dismissal with long-term monitoring (18 months or more). Plan a 9-month course of treatment for public school facilities. Further, the use of the listening CDs should be implemented after a baseline of stuttering is established and an assessment of attitudes and feelings. Indicate the lessons and game boards for each phase of therapy:

Identification, Education, Counseling:

Changing the Way I Talk:

Maps/Visual Markers:

²This author does not recommend prosthetics for children under the age of 10 years.

Game Boards for Drill Play and Extension Lessons:

Listening CD Schedule and Monitoring of Negative Attitudes/Emotions:

Take-Home 5-Minute Demonstration/Counseling Tape for Parents Schedule:

Comments:

References

- Radford, N. T., & Tanguma, J. (2007). Mediations for stuttering refuction: Lessons from African American and Mexican American Children. *ECHO*, (3)1. Retrieved from <http://www.nbaslh.org> .
- Radford, N. T., & Tanguma, J. (2007). Mediated learning and stuttering reduction: Three case studies of school-age children. *ECHO*, 3(2). Retrieved from <http://www.nbaslh.org> .

SAMPLE LETTER FOR PARENTS OF CHILDREN WHO STUTTER

Dear _____,

Your child was recently diagnosed with stuttering. I wanted to share some information and suggestions regarding how to deal with the periods of stuttering and fluency. The remainder of this letter consists of a question parents commonly ask, followed by the answer.

How do I deal with helpful relatives or friends who often try to give my child advice about how to speak? What could I say to them?

Answer: Share this letter with them and talk to them privately at first when your child is not around so that everyone can work together to establish a positive atmosphere in which your child can talk. Sharing this letter is only the first step. You will have many conversations over the course of your child's therapy to assist him in managing his stuttering and communicating effectively. It is probably a good idea to ask well-intentioned relatives and friends not to give the child advice about how to speak better. The best ways to help are:

Be a good listener. When the child is talking, listen attentively without interrupting or giving suggestions about how to talk more smoothly. It interrupts the child's thoughts and may only increase the dysfluencies.

Practice not overreacting to the dysfluency. Unknowingly, you may make a face, roll your eyes, or sigh if the stuttering makes you anxious. Your child will see these behaviors and may develop some very negative attitudes about speaking. Practice keeping a pleasant-looking facial expression, in general. This will only help your child.

Don't finish words or sentences for the child. Allow the child to get through the moment of stuttering without saying words for him/her. When you are in a hurry—rushing to school, getting children in bed—it may be harder to stick with this suggestion. If a hurried, anxious schedule is your lifestyle, it will tend to increase anxiety and try your patience when attempting to communicate quickly with your child.

Don't overly praise periods of fluency. Your excitement about fluency shows how concerned you are about the period of stuttering. Children sometimes confuse messages about how parents and relatives feel about them because parents are reacting to a behavior. We do not want the child to get the message that he or she would be loved more if he or she did not stutter.

Recognize that all children must learn how to behave. Just because a child stutters is no reason to avoid establishing reasonable consequences for misbehaving. Ask yourself how you would normally react to a particular behavior whether the child stuttered or not. All children need constant time and attention—be alert to this fact. Further, the time and attention demand may be significantly higher during preadolescence than it is during the preschool years. Pay attention to how your child is developing and what the child is thinking and doing.

Don't tolerate teasing directed toward the child about stuttering. An angry outburst in front of the child could make the situation worse. However, if you discover the child being teased or bullied about the stuttering, do say something and confront the situation in a firm, clear, businesslike fashion. For example, "Yes _____ stutters. It is not fair to tease about stuttering, just as it's not fair to tease about eyesight, skin color, or being a boy or a girl." Allow the teaser or bully a chance to apologize in the child's presence. This type of confrontation, if necessary, can do a lot to protect the child's self-esteem and to let the teaser or bully

know you are watching and will be monitoring his/her behavior. Do protect your child; however, do not overly shelter your child. Some playful teasing and joking is normal; however, do not allow the stuttering to be an object of teasing.

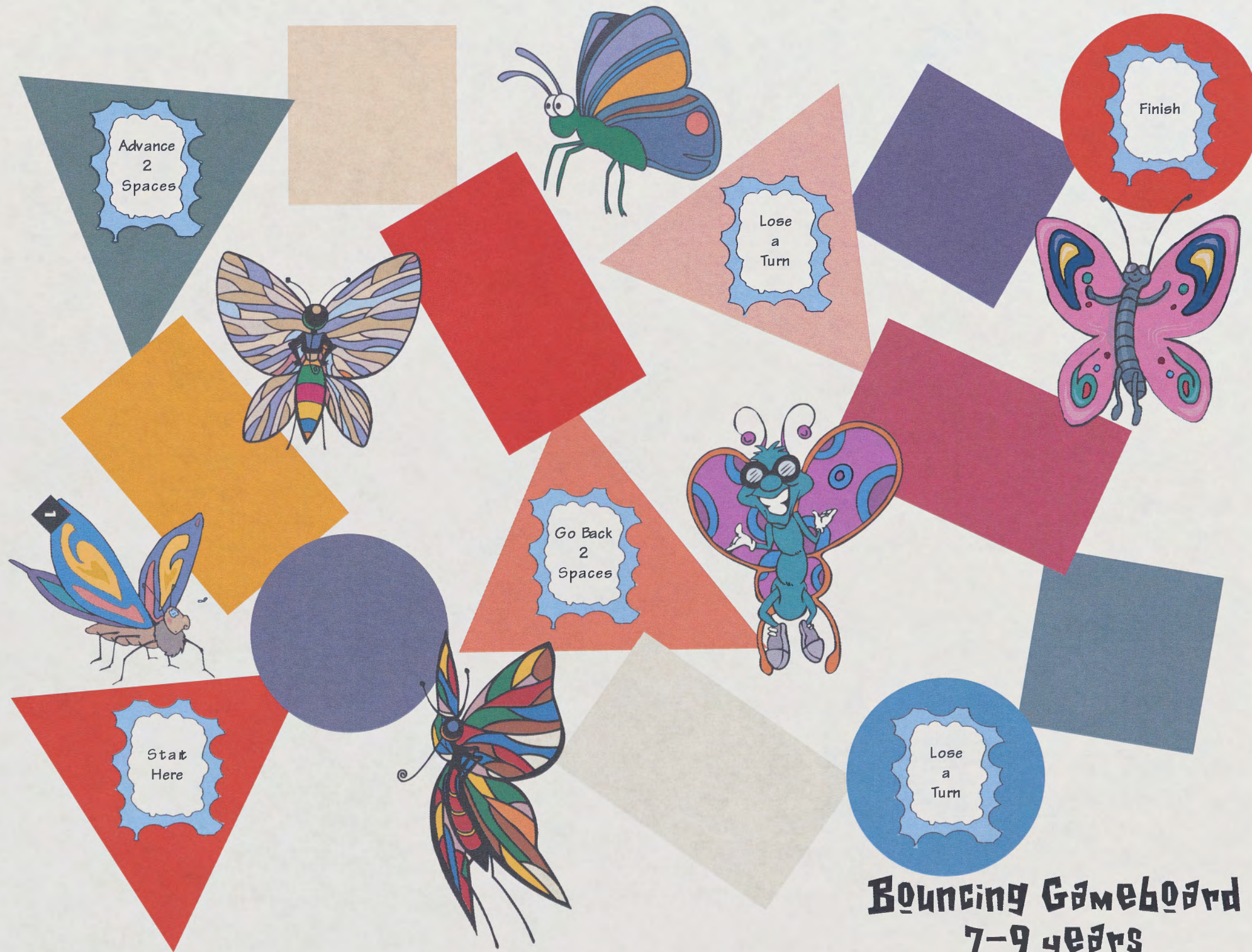
I look forward to working with you and your child. Please contact me with any questions or concerns.

Sincerely,

Your Speech-Language Pathologist

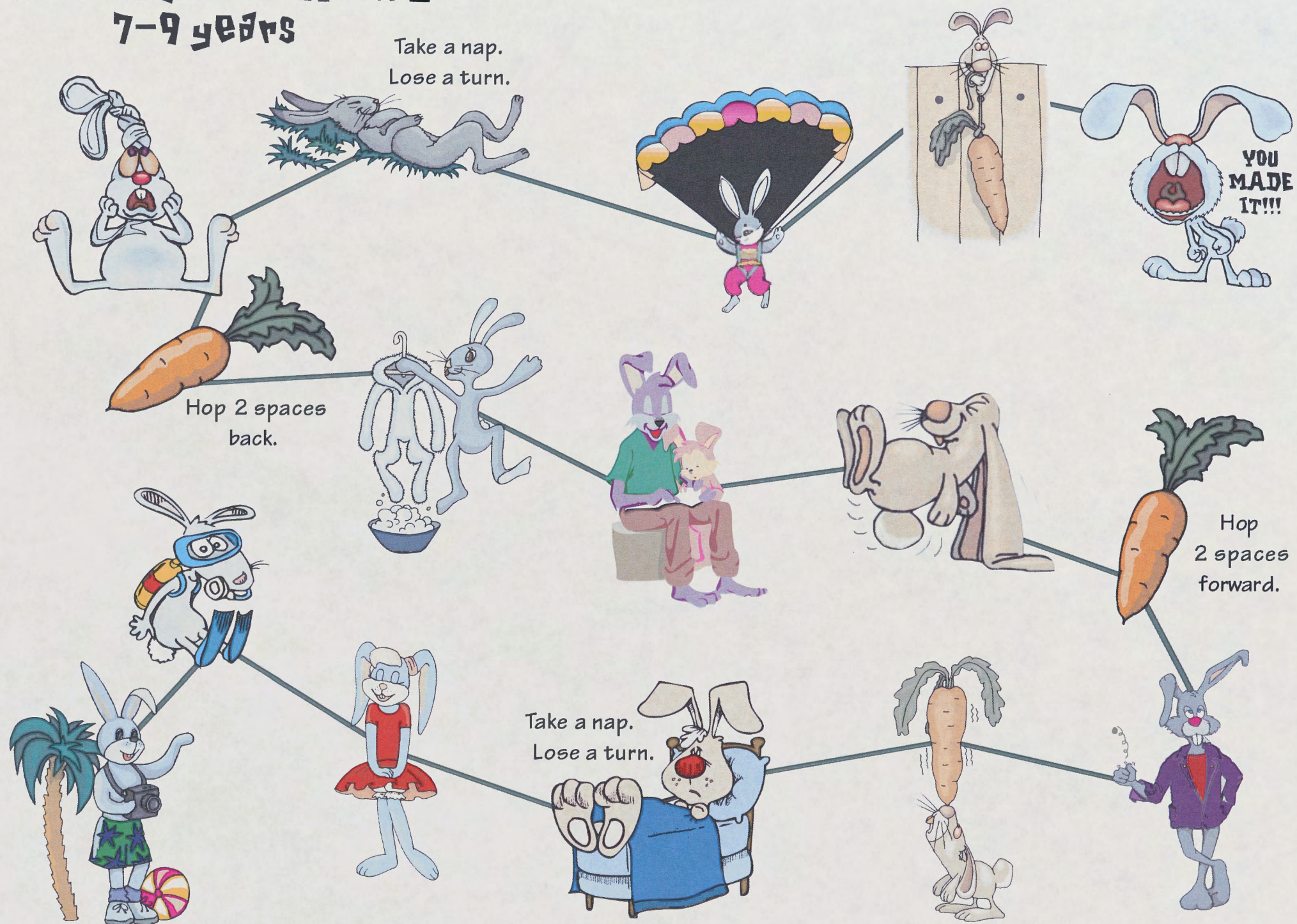
Appendix D

Board Games for Establishing Management of Fluency



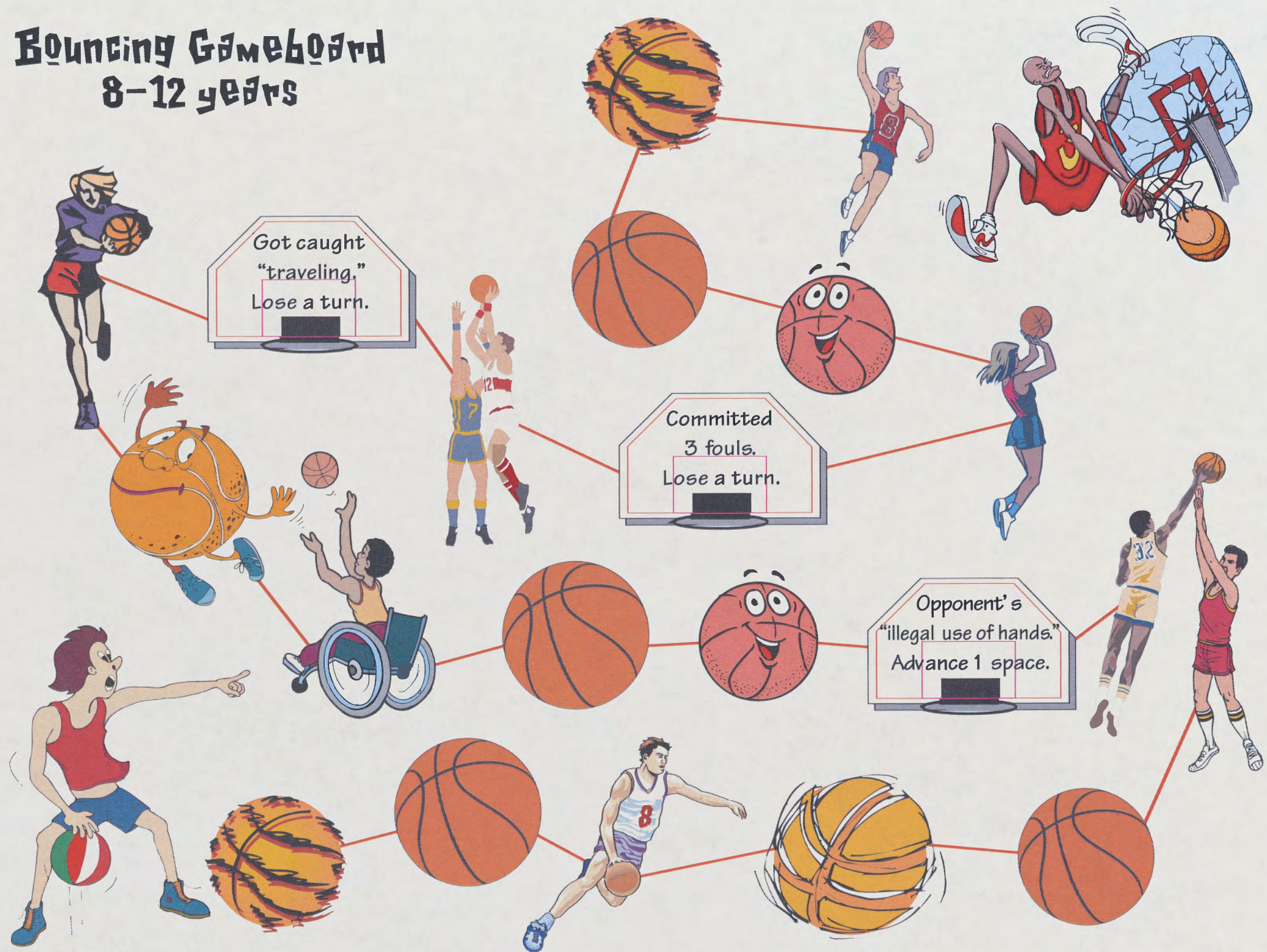
Bouncing Gameboard 2

7-9 years

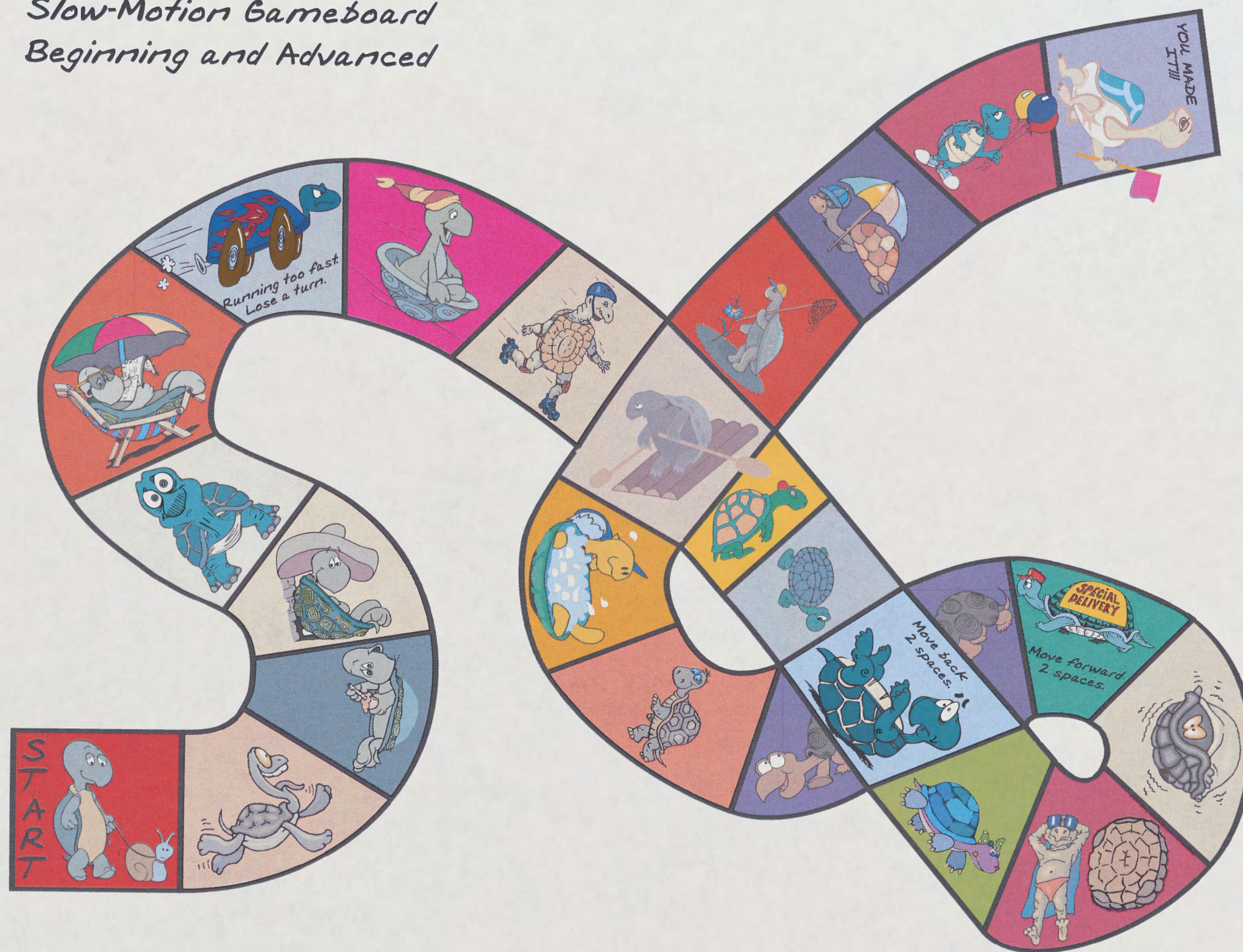


Bouncing Gameboard

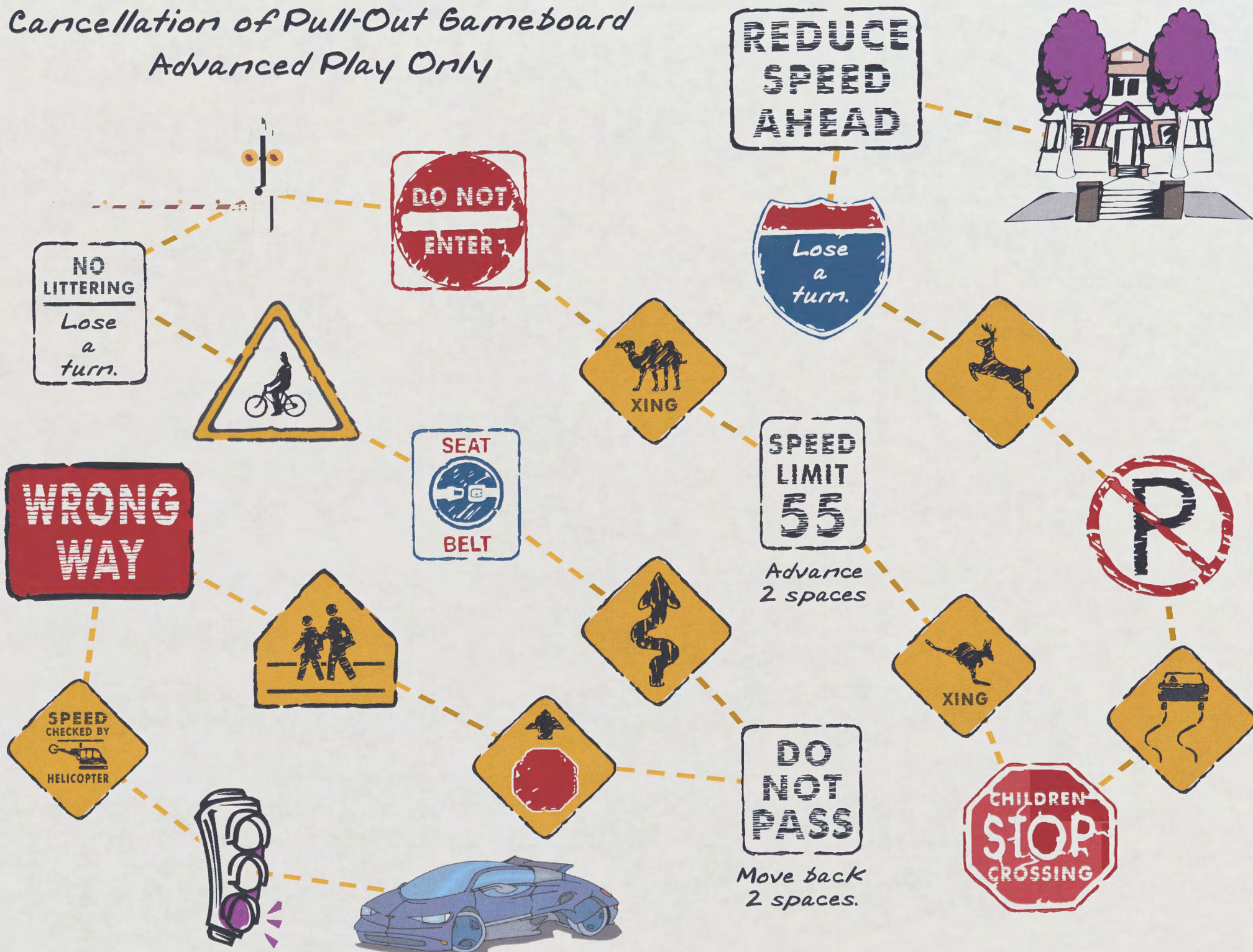
8-12 years



Slow-Motion Gameboard Beginning and Advanced



Cancellation of Pull-Out Gameboard Advanced Play Only



Bounce
5 Times



Bounce
2 Times



Bounce
1 Time



Bounce
5 Times



Bounce
2 Times



Bounce
1 Time



Bounce
5 Times



Bounce
2 Times



Bounce
1 Time



Bounce
5 Times



Bounce
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Bounce
1 Time



Bounce
5 Times



Bounce
2 Times



Bounce
1 Time



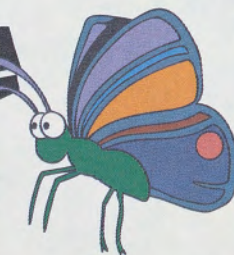
**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



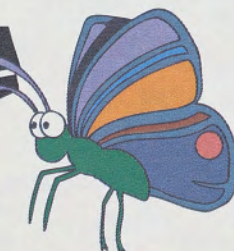
**Bounce
5 Times**



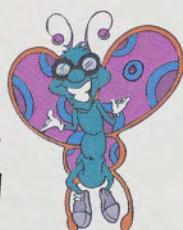
**Bounce
2 Times**



**Bounce
1 Time**



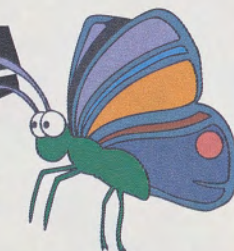
**Bounce
5 Times**



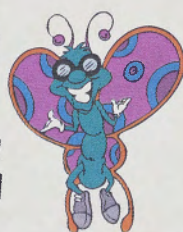
**Bounce
2 Times**



**Bounce
1 Time**



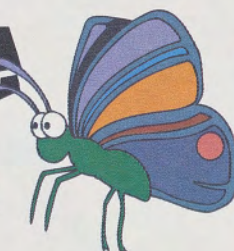
**Bounce
5 Times**



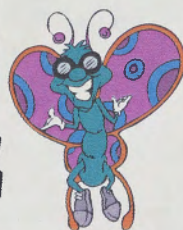
**Bounce
2 Times**



**Bounce
1 Time**



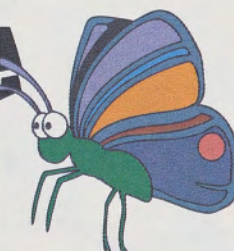
**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



**Bounce
5 Times**



**Bounce
2 Times**



**Bounce
1 Time**



Clinicians

- Copy high-demand* questions on red paper.
- Gamecards read by the clinician so players don't see answer that clinician sees on the card.
- Use a spinner or a die to determine player's number of moves.

Benjamin Franklin is to electricity as Alexander Bell is to the <u>telephone</u> .*	Snow is to winter as sunshine is to <u>summer</u> .	Earrings are to ears as <u>necklaces</u> are to necks.
Darkness is to night, as light is to <u>day</u> .	A singer is to music as an actor is to <u>movies</u> .	Caesar Chavez was to farm workers as Mother Teresa was to the poor people in <u>India</u> .*
A leaf is to a tree, as a page is to a <u>book</u> .	Shoes are to feet, as gloves are to <u>hands</u> .	How do you choose a friend? *
A toe is to a foot as a finger is to a <u>hand</u> .	Tears are to sadness as laughter is to <u>happiness</u> .	A broom is for sweeping as a knife is for <u>cutting</u> .
A bark is to a dog as a meow is to a <u>cat</u> .	Eyes are for seeing as a nose is for <u>smelling</u> .	A cloud is as soft as a slab, table, or a <u>cotton ball</u> .

Clinicians

- Copy high-demand Questions* on red paper or color red.
- Gamecards read by the clinician so players don't see answer that clinician sees on the card.
- Use a spinner or a die to determine player's number of moves.

We have learned about tense muscles. Tension is like jello, yoga, or a <u>closed fist</u> .	Think of an animal. After you think of it, tell how it is like a television.*	You earned a D in a class. Your parents may be upset. How do you explain?*
Stretching is like an <u>expanded rubber band</u> or a tight coil.	You need money for something very expensive. Convince your parents.*	Tell me about the different activities you do at school.
Stuttering behaviors may include <u>repetitions</u> , saying words smoothly, or listening.	You have two friends you like. Your two friends do not like each other. How do you change their minds? *	You broke a neighbor's window accidentally. Pretend to apologize.*
Describe the difference between night and day.	Think of your three favorite movies. Explain why you like them.*	Describe the difference between a cat and a dog.*
Think of a famous person. Give me clues to guess the person's name.*	Describe what you do on a typical Saturday.	If you could travel to any place in the world, where would it be and why?*

Clinicians

- Copy high-demand questions* on red paper or color red.
- Gamecards read by the clinician so players don't see questions in advance.
- Use a spinner or a die to determine player's number of moves.

Name all your favorite foods.	Name as many planets as you can.	Name as many television shows as you can.
Name as many singers as you can.	Name all the things you would need for a camping trip.	Name as many of your family members as you can in 1 minute.*
Name as many shapes as you can.	Name all your favorite video games.	Name the days of the week.
Name 15 different appliances.*	Name some things I would find in your room at home.	Name as many months as you can.
Name as many pets as you can in 1 minute.*	Name as many colors as you can.	Name your favorite sports teams.

Clinicians

- Copy high-demand Questions* on red paper or color red.
- Gamecards read by the clinician so players don't see answer that clinician sees on the card.
- Use a spinner or a die to determine player's number of moves.

Name all the ice cream flavors you can think of.	Describe a tree, and be sure to describe color, texture, and shape.*	Name as many animals as you can in 1 minute.*
Name as many of the alphabet as you can in 1 minute.*	How would you describe having a cold to a blind person?*	Describe your favorite toy, game, or activity.
Name as many different kinds of fruit as you can in 1 minute.*	Count as fast as you can for 30 seconds.*	Think of one of your favorite foods. How would you describe it without naming it?*
Name as many of your classmates as you can in 1 minute.*	Name 10 different things you might find in a kitchen.	Name 10 different things you would find in a classroom.
Name 10 different things you would find in a car.	Name 10 different things you would find in a doctor's office.	Name different coins and bills used for money. [Hint: penny, nickel...]

Clinicians

- Copy high-demand Questions* on red paper. *All cards on this page are High Demand.*
- Gamecards read by the clinician so players don't see situation descriptions in advance.
- Use a spinner or a die to determine player's number of moves.

CLINICIAN: Make up a story and purposely stutter on words. Have the child identify stutters.*	CLINICIAN: Have child tell how to play a game or sport and identify his/her stuttering. *	CLINICIAN: Have the child explain how to make a good friend. Have him/her identify stuttering. *
CLINICIAN: Provide a reading passage for the client to read using a new technique. *	CLINICIAN: Have the child make a pretend telephone call to a friend.*	CLINICIAN: Have the child pretend to call to order a pizza. Have him/her identify stuttering.*
CLINICIAN: Have the child talk about his/her day. Have the child identify stuttering behaviors. *	CLINICIAN: Make a pretend phone call. Have the client identify your moments of stuttering.*	CLINICIAN: Provide a reading passage for the client to read using a new technique to control stuttering.*
CLINICIAN: Read a passage to the child and have him or her retell it. Have the client identify stuttering. *	CLINICIAN: Read a passage to the child and have him or her retell it.*	CLINICIAN: Read a passage to the child and have him or her retell it. *
CLINICIAN: Read a passage to the child and have him or her retell it.*	CLINICIAN: Have the child read a passage and stutter on purpose during the reading. *	CLINICIAN: Have the child read a passage and stutter on purpose during the reading.*

Clinicians

- Copy high-demand questions* on red paper or color red.
All cards on this page are High Demand and should be used after some training on fluency strategies at conversational level.
- Gamecards read by the clinician, with client answering.
- Use a spinner or a die to determine player's number of moves.

You always seem to stutter on the names Bobby and Pat. What should you do when you need to say these names?*	You have to give a speech at school You are afraid of stuttering. What could you do? *	You stutter on words that begin with the letters t, d or l. What could you do?*
You are at the store. You need the clerk to help you find what you are looking for. What should you do?*	You are in the library asking for help. You begin to stutter and the librarian makes a face. What should you do?*	You need to ask your teacher a question but can't get the words out. What should you do?*
Your teacher sends you to the school office to ask for supplies. You are afraid you might stutter. What could you do?*	You are in a school play. You stutter every time you have to say the name "Sarah." What should you do?*	You are ordering at a restaurant and get stuck on a word. What could you do?*
A boy in your class teases you about stuttering and you don't like it. What should you do?*	A girl in your class teases you and pretends to stutter like you do. What could you do if you don't like it?*	Someone in your class is a real bully and picks on everyone, including you. What should you do?*
You have trouble saying "hello" when you answer the phone. What could you do?*	CLINICIAN: Have the child identify situations in which they stutter the most. *	CLINICIAN: Have the child make up a story about some topic you choose. Identify stuttering.*

Clinicians

- Blank Cards to create additional questions.
- Spelling words, vocabulary words and other school-based information might be used.
- Use a spinner or a die to determine player's number of moves.

SMOOTH TALKING



Nola T. Radford, PhD, CCC-SLP has been a speech-language pathologist for 26 years. She has worked in a variety of employment settings, including public schools, private practice, and a pediatric rehabilitation clinic. She is currently a Professor of Speech-Language Pathology at Jackson State University, College of Public Service, School of Health Sciences in the Department of Communicative Disorders. Her duties include teaching, research, and service. Dr. Radford supervises graduate students in the Central Mississippi Speech, Language and

Hearing Clinic, where students, under the supervision of certified and licensed speech-language pathologists, learn to provide clinical services to persons with speech, language, cognitive, swallowing, and hearing disorders. The Clinic provides free clinical services to persons of all ages and from diverse ethnocultural backgrounds. During her tenure at Jackson State, Dr. Radford has maintained Specialty Recognition in Fluency Disorders from The Specialty Board on Fluency Disorders of the American Speech-Language Hearing Association. She has presented at local, state, and national speech and hearing conventions in the areas of stuttering in children and adolescents, language intervention, and the language abilities of abused and neglected children. She conducts research in the areas of stuttering, language, and discourse development in children, and the early detection of Alzheimer's in minority populations.