

## CHAPTER

## 5

# Hands-On Core Skills: The Speech-Language Pathologist as Facilitator of Positive Communication Change

## Introduction

A brief discussion in Chapter 1 of this text addressed words used for characterizing the role of the speech-language pathologist (SLP) in the therapeutic process, words used to describe the *facilitative role* of the SLP in the therapeutic process. The role of the SLP in therapy is to *facilitate*, or *promote*, increased communication skills in clients. SLPs accomplish this by blending a thorough knowledge of the profession with the skillful, even artful, implementation of core skills in the therapeutic process. These core skills, called *therapeutic-specific skills*, are fundamental skills that the SLP employs as an ongoing, underlying, and integral part of therapy. Therapeutic-specific skills are skills that actually constitute the underlying fiber, the essence of what SLPs do, fundamentally, to facilitate increased communication skills in clients; therapeutic-specific skills are what the term implies: skills that are specific to the act of providing speech-language therapy in a manner conducive to effecting communicative improvement in clients. As an illustration, consider the architectural profession and the task of building a home.

Though, perhaps, unable to cite the specifics of design, materials quantity, safety or durability codes, and so forth, the lay public probably has some understanding that, in order to build a home, there needs to be some place to locate the structure, something

from which to build it, and some way of ensuring that it holds together over time. Architects know these things, as well. In fact, architects know that no matter how great, or small, the job, there are some underlying basic considerations that must be made in the daily task of operating as an architectural professional; factoring gravitational pull is probably one of those considerations. The architect may also consider the impact of natural elements such as rain, heat, cold, wind, and so forth when working through a project. Regardless of the size, or cost, of the project, it is inconceivable that an architect would design, or oversee, the construction of even a small storage building without considering the basic, underlying principles that serve, so powerfully, to impact activities of that profession. SLPs should view therapeutic-specific skills in the same manner: no matter how easy, or difficult, a case, no matter how old or new the clinical techniques employed, there are some basic considerations that are required as a function of operating as a clinician in the speech-language pathology profession; basic hands-on therapeutic-specific skills are among those considerations. Certainly, therapeutic-specific skills are not all particular to the speech-language pathology profession, for many of these same skills are used by educators, psychologists, and others. However, if used well by the SLP, in conjunction with a good knowledge base of the profession, these skills may well separate the SLP who is adequate, from one who is excellent.

By design, therapeutic-specific skills are basic and global skills; they remain the underlying skills that SLPs bring to the implementation of most, if not all, speech-language therapy intervention programs and techniques. For example, when designing a specific fluency program aimed at reducing repetitions, blocks, and prolongations, authors of the program typically outline specific components for intervention, specifying how, when, and why the SLP should implement various aspects of the program. Rarely does the author of a fluency intervention program take the time, however, to teach or remind the SLP of the importance of *pace*, *volume*, *proximity*, *enthusiasm*, *antecedents*, *direct teaching*, and so forth, unless one or more of these therapeutic-specific skills is viewed as an integral part of the fluency intervention program itself; in this case, *pace*, for example, may be discussed as an integral part of some fluency intervention programs. Yet, it is believed that the authors of any intervention program expect SLPs to inherently know that in addition to learning the specifics of the intervention program, the SLP must also exhibit good clinical use of the core skills mentioned: *pace*, *volume*, *proximity*, *enthusiasm*, *antecedents*, *direct teaching*, and so forth. However, as mentioned, rarely does the author of a specific intervention program build in instruction in the core skills of therapy. How, then, is the SLP expected to acquire these core skills? Other than random occurrences of therapeutic-specific skills dispersed among various intervention programs, clinical supervisors are left to teach therapeutic-specific skills on an “as needed” basis as situations arise during clinical training for SLP students. Fortunately, most clinical supervisors have done good jobs of teaching these core skills, perhaps, using “teachable moments” as a major factor in instruction design. However, it is believed that information presented in this text, particularly in this chapter, serves to systematically help SLPs learn and implement underlying basic core skills that are integral to speech-language therapy.

## Therapeutic-Specific Skills

There are, in all likelihood, a number of skills that professionals might suggest for inclusion as therapeutic-specific core skills. However, based on approximately 10 years of classroom instruction designed to teach core therapeutic-specific skills to beginning SLP students, it became apparent that the skills discussed in this chapter constitute more than an adequate start for developing the underlying skills needed by SLPs to effect communication improvements in clients. The following 28 selected therapeutic-specific core skills are highlighted in this chapter, with 20 of these skills specifically addressed in a DVD accompaniment to the chapter. The skills highlighted on the DVD are indicated by a media symbol to the left of the topics, which appear in **bold**.

1. Communicating Expectations
2. Motivation
3. 📺 **Enthusiasm, Animation, and Volume** in the Therapeutic Process
4. 📺 **Seating Arrangements, Proximity, and Touch** in the Therapeutic Process
5. 📺 **Preparation, Pacing, and Fluency** for Therapeutic Momentum
6. 📺 Antecedents: **Alerting Stimuli, Cueing, Modeling, and Prompting**
7. 📺 Direct Teaching: **Learning Modalities, Describing/Demonstrating, Questioning, and Wait-Time**
8. 📺 Stimulus Presentation: **Shaping (Successive Approximations)**
9. 📺 Positive Reinforcers: **Verbal Praise, Tokens, and Primary Reinforcers**
10. 📺 **Corrective Feedback** in the Therapeutic Process
11. 📺 **Data Collection** in the Therapeutic Process
12. Probing in the Therapeutic Process
13. Behavioral Management in the Therapeutic Process
14. Trouble-Shooting in the Therapeutic Process

### Overview of Workshop Tutorials: How to Use This Chapter

Twenty-eight core therapeutic-specific skills are discussed in this chapter. Considerable time will be devoted to presenting definitions, rationales, and relevant points of application to the speech-language pathology profession for each therapeutic-specific skill addressed in the chapter. The presentation format for the therapeutic-specific skills is a series of *mini-workshops*, opportunities to receive tutorials in individual therapeutic-specific skills in concise sequences of activities contained on a Therapeutic-Specific Workshop Form (see Figure 5–1 and Figure 5–2).

**Example: Workshops Forms Without a DVD Vignette  
Therapeutic-Specific Workshop (TSW) Form: \_\_\_\_\_**

Name: \_\_\_\_\_ Date *Post Organizer Completed* \_\_\_\_\_

**Section A**

(Read this section *before* proceeding to Section B.)

Definitions	Rationale	Relevance to SLP Profession

**Section B**

(Read this section *before* proceeding to Section C.)

**Advance Organizer**

**Topic:**

**Purpose:**

**SLP Action:**

**Background:**

**Links to Prior Learning:**

**Objective and Clarification of Skill to be Learned:**

**Rationale:**

**New Vocabulary:**

**Individualized SLP Outcomes/Performance Objectives:**

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**Figure 5-1.** Therapeutic-Specific Workshop (TSW) Form. This example is for Workshops *without* the DVD vignettes. Workshops 1, 2, 12, 13, and 14 *do not* have DVD vignette accompaniments.

Section C	
(Read this section <i>before</i> proceeding to Section D.)	
Description/Demonstration	
Example 1:	
Example 2:	
Section D	
(Complete this section <i>before</i> proceeding to Section E.)	
Think-Out-Loud Questions	
<input checked="" type="checkbox"/>	Read questions aloud.
<input checked="" type="checkbox"/>	Verbalize answers to help with cognitive processing and the practice effect.
<input checked="" type="checkbox"/>	Write short answers in spaces provided.
1.	What is the first thing that I must do in order to _____ ? _____
2.	What are the next step(s) that I must take in order to _____ ? _____
3.	What vocabulary must I use in order to _____ ? _____
4.	What should I say or do in interactions with the client to _____ ? <b>(To help with authenticity, give your client an imaginary name!)</b> _____ _____ _____
5.	How will I know that I am appropriately _____ ? _____

(Continued)

<b>Section E</b>	
<b>(Complete this section <i>before</i> proceeding to Section F.)</b>	
<b>Prompts for Practice Opportunity</b>	
<p>Practice the skills discussed in Sections A–D above. Revisit Sections A–D as needed to increase comfort with this section. <i>Use SLP peers, friends, parents, other relatives, large dolls positioned in a chair in front of you to pose as the “client(s),” etc., for your practices. If no one is available to serve as your client(s), use yourself as the client(s) by standing or sitting in front of a large mirror as you practice; the effect of “using yourself as client(s)” is the same, and sometimes more powerful, than having another pose as client(s).</i> Repeat practices until items 1–3 below are accomplished. (You may require more or less than the practice check boxes provided.) Check one box each time a skill is practiced. Enter date each skill is accomplished to your satisfaction in the date spaces provided. (Dates may/may not be the same for each skill accomplishment.)</p>	
1. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Accuracy in the skill sequence accomplished. Date:
2. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Personal comfort in the skill sequence accomplished. Date:
3. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Adequate speed/fluency in the skill sequence accomplished. Date:
<b>Section F</b>	
<b>(Complete this section <i>before</i> entering the date for <i>Date Post Organizer Completed</i>, upper right, page 1.)</b>	
<b>Post Organizer</b>	
<b>What I Accomplished in this Workshop:</b> _____ _____ _____	
<b>Importance of My Accomplishment(s) to My Therapy:</b> _____ _____ _____	
<b>My Assessment of My Performance of the Skill(s) Presented in this Workshop:</b> <b>The Easiest Parts for Me:</b> _____ <b>The Most Difficult Parts for Me:</b> _____	
<b>Thought Processes/Emotions I Experienced Learning the Skill(s) Presented in this Workshop Compared to What I Ultimately Learned from this Effort (Reflection Exercise):</b> _____ _____ _____	
<b>Date Post Organizer Completed: (Enter date here and in upper right corner, page 1):</b> _____	

Figure 5–1. (Continued)

<p style="text-align: center;"><b>Example Workshops Forms With the DVD Vignette</b>  <b>Therapeutic-Specific Workshop Form: _____</b></p>		
<p>Name: _____ Date <i>Post Organizer Completed</i> _____</p>		
Section A		
(Read this section <i>before</i> viewing vignette on _____.)		
Definitions	Rationale	Relevance to SLP Profession
Section B		
(Read this section <i>before</i> viewing vignette on _____.)		
Advance Organizer		
<p><b>Topic:</b></p>		
<p><b>Purpose:</b></p>		
<p><b>SLP Action:</b></p>		
<p><b>Background:</b></p>		
<p><b>Links to Prior Learning:</b></p>		
<p><b>Objective and Clarification of Skill to be Learned:</b></p>		
<p><b>Rationale:</b></p>		
<p><b>New Vocabulary:</b></p>		
<p><b>Individualized SLP Outcomes/Performance Objectives:</b></p> <p>_____</p> <p>_____</p>		

**Figure 5–2.** Therapeutic-Specific Workshop (TSW) Form: (DVD Format). (Continued)

Section C	
(Read this section <i>before</i> viewing vignette on _____.)	
Description/Demonstration	
Example 1:	
Example 2:	
Section D	
(Complete this section <i>before</i> viewing vignette on _____.)	
Think-Out-Loud Questions	
<input checked="" type="checkbox"/>	Read questions aloud.
<input checked="" type="checkbox"/>	Verbalize answers to help with cognitive processing and the practice effect.
<input checked="" type="checkbox"/>	Write short answers in spaces provided.
1.	What is the first thing that I must do in order to _____ ? _____
2.	What are the next step(s) that I must take in order to _____ ? _____
3.	What vocabulary must I use in order to _____ ? _____
4.	What should I say or do in interactions with the client to _____ ? (To help with authenticity, give your client an imaginary name!) _____ _____ _____
5.	How do you know that you are appropriately implementing _____ ? _____
View the Vignette on _____ before proceeding to Section E.	

Figure 5-2. (Continued)

## Section E

(Complete this section *after* viewing the Vignette on \_\_\_\_\_.)

## Prompts for Practice Opportunity

Practice the skills discussed in Sections A–D above and demonstrated in the DVD vignette on \_\_\_\_\_ . Revisit the DVD demonstration and Sections A–D as needed to increase comfort with this section. Use *SLP peers, friends, parents, other relatives, large dolls positioned in a chair in front of you to pose as the “client(s),” etc., for your practices. If no one is available to serve as your client(s), use yourself as the client(s) by standing or sitting in front of a large mirror as you practice; the effect of “using yourself as client(s)” is the same, and sometimes more powerful, than having another pose as client(s).* Repeat practices until items 1–3 below are accomplished. (You may require more or less than the practice check boxes provided.) Check one box each time a skill is practiced. Enter date each skill is accomplished to your satisfaction in the date spaces provided. (Dates may/may not be the same for each skill accomplishment.)

1.     Accuracy in the skill sequence accomplished. Date: \_\_\_\_\_
2.     Personal comfort in the skill sequence accomplished. Date: \_\_\_\_\_
3.     Adequate speed/fluency in the skill sequence accomplished. Date: \_\_\_\_\_

## Section F

(Complete this section *after* viewing the Vignette on \_\_\_\_\_.)

## Post Organizer

What I Accomplished in this Workshop: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Importance of My Accomplishment(s) to My Therapy: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

My Assessment of My Performance of the Skill(s) Presented in this Workshop:

The Easiest Parts for Me: \_\_\_\_\_

The Most Difficult Parts for Me: \_\_\_\_\_

Thought Processes/Emotions I Experienced Learning the Skill(s) Presented in this Workshop Compared to What I Ultimately Learned from this Effort (Reflection Exercise):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Date Post Organizer Completed: (Enter date here and in upper right corner, page 1): \_\_\_\_\_

The **Therapeutic-Specific Workshop Form (TSW Form)** serves as a *learning tool* to guide students through the activities associated with learning new therapy skills; this form accompanies each skill to be learned. Additionally, 20 therapeutic-specific skills are highlighted on an accompanying DVD (found within the covers of this text) as demonstrations of how each respective therapeutic-specific skill might be represented within a therapeutic context. As a culminating experience for students learning therapy, two mini-therapy sessions (9–10 minutes in length) are provided for a synthesized view of several therapeutic-specific skills when used within the context of a therapy session. The completion of each TSW Form serves as an indicator that the SLP has both worked through the skills addressed in the selected workshop and has attained an adequate self-assessed level of comfort with the materials presented in the workshop.

The basic foundation for the tutorials SLPs receive in this chapter is the **Explicit Instruction Model** of teaching, an instruction model that is both highly organized and task-oriented (Miller, 2002). Using an adaptation of this model, SLPs will be provided five cognitive aids designed to help focus content, attention, and learning: *advance organizers*, *descriptions/demonstrations*, *think-out-loud questions*, *practice opportunities*, and *post organizers*. These cognitive aids help the SLP process the components and requirements of each skill addressed in this chapter.

Before going further, it is important that students obtain a basic understanding of what is required in the workshops for each therapeutic-specific skill. A TSW Form (see Figure 5–1 or Figure 5–2) is provided for each skill to be studied and contains specific procedures students are to follow in learning the selected therapeutic-specific skill. As an example, the *Workshop Forms* list sections for advance organizers, descriptions/demonstrations, think-out-loud questions, practice opportunities, and post organizers. An **advance organizer** is information introduced in advance of the new skill to be learned and is designed to bridge the gap between current knowledge and knowledge to be acquired (Williams & Butterfield, 1992). *Advance organizers* are presented before students proceed in acquiring a new therapeutic-specific skill. Advance organizers are an important part of understanding and gaining comfort in acquiring the therapeutic-specific skills presented in this chapter. **Descriptions**, well-organized explanations of the skills to be learned and the steps taken in learning the new therapy skill, along with **demonstrations**, written or visual presentations of skills implemented by the SLP, also serve to help students acquire the skills presented. **Think-out-loud questions**, which the learner verbalizes to him- or herself, help processing of new information by combining two modalities, auditory and visual, to reinforce retention of new concepts. **Prompts for practice opportunities** are designated points in learning to practice new skills with help from prompts in the vignettes or on the TSW Form. Prompts for practice opportunities provide the essence of the workshop opportunity; for it is the practice opportunities that ultimately lead to the desired comfort level that students achieve in the learning experience. *Prompts for Practice Opportunities* offer practice at three levels: (a) practice for accuracy in accomplishing the skill, (b) practice for personal comfort in accomplishing the skill—needed because students often report “feeling strange” practicing the skills, and (c) practice for speed/fluency in accomplishing the skill. Finally, a **post organizer**, a concluding activity that helps

students further conceptualize new material, is used at the end of each workshop experience. Working through the workshop experiences, using the TSW Forms, the DVD, and information from this text, students gain both understanding and practice in numerous therapeutic-specific skills.

SLPs are encouraged to work through this chapter in the following manner for maximal benefit.

1. Select a therapeutic-specific skill to be studied and read the introductory information from this chapter that accompanies the selected skill. For example, if selecting the therapeutic-specific skills for Enthusiasm, Animation, and Volume, read the information from this chapter related to those skills.
2. Select the *Therapeutic-Specific Workshop (TSW) Form* that accompanies the skill selected. For example, the skills Enthusiasm, Animation, and Volume have an accompanying TSW Form, TSW Form 3, which you will need when studying the skills on Enthusiasm, Animation, and Volume.
3. Fill in your name in the space provided on the TSW Form.
4. Read the definitions, rationales, and relevant statements located in Section A of the TSW Form.
5. Complete the *Advance Organizer* portion of the TSW Form located in Section B for the skill selected.
6. Read the *Description/Demonstration* information located in Section C on the TSW Form.
7. Locate the *Think-Out-Loud* questions located in Section D on the TSW Form and answer the questions before viewing the vignette on the topic selected.
8. (If no DVD accompanies the selected therapeutic-specific skills, proceed to item 10.) If there is a DVD accompaniment to the selected therapeutic-specific workshop, view the DVD accompaniment to the skill selected as often as needed to become comfortable that the demonstrated skill(s) are clear. Each skill on DVD is demonstrated in a short vignette segment designed to provide the viewer a visual representation of one possible way the skill may be represented; the DVD also prepares the viewer for *Prompts for Practice Opportunities* related to the skill(s) selected.
9. Stop the DVD at the end of the vignette on the selected skill.
10. Read the *Prompts for Practice Opportunity* section located in Section E on the TSW Form. Practice the skills demonstrated in the vignette, if applicable, and in Sections A–D of the TSW Form. Repeat practices until (a) accuracy in the skill sequence is accomplished, (b) personal comfort for the skill sequence is accomplished, and (c) appropriate speed/fluency in the skill sequence is accomplished.
11. Fill in the dates skills for *accuracy*, *personal comfort*, and *speed/fluency* were accomplished in the *Prompts for Practice Opportunities* section of the TSW Form, Section E. (**Note: For some skills, it is likely that all three levels of practice,**

**accuracy, personal comfort, and speed**, will be accomplished within one or two practice sessions. For others, however, it is not uncommon for students to require only one or two practices to accomplish **accuracy** for the skill, but to still need several more practice sessions before **personal comfort** is achieved; most often even more practice is required to achieve the **speed/fluency** deemed appropriate for therapeutic intervention.)

12. Once all three of the skill levels in *Prompts for Practice Opportunities* (accuracy, comfort, speed) are accomplished, complete the *Post Organizer* activities in Section F. **Fill in the date the Post Organizer was completed in the lower right-hand corner of Section F and in the upper right-hand corner of page 1 of the TSW Form. This date in the upper right-hand corner indicates the date this particular therapeutic-specific skill was accomplished.**

## Workshop Tutorials

Therapeutic-specific skills are most often learned independently of other skills without a hierarchical order. Therefore, skills may be selected in the order presented in this text, as preassigned in class, or as otherwise selected by the individual SLP.

### **Communicating Expectations** (*Therapeutic-Specific Workshop: Form 1; No DVD Track*)

The concept of communicating expectations is based on research regarding teacher expectations (Learman, Avorn, Everitt, & Rosenthal, 1990; Rosenthal & Jacobson, 1968; Smith, 1980). Rosenthal and Jacobson (1968) found that gains in children's IQs were related directly to the classroom teacher's expectations for IQs to increase. Replications of the Rosenthal and Jacobson's (1968) work, often referred to as the "Pygmalion in the Classroom study," were performed within numerous contexts over several decades (Brophy, 1983; Eden, 1990; Edmonds, 1979), with results indicating that children will perform to the levels expected and communicated, even when such communications are inadvertent nonverbal behaviors (Ambady & Rosenthal, 1992). In fact, Feldman and Theiss (1982) found that teacher expectations influenced student achievement and that preconceptions influenced both student and teacher attitudes. The effects of communicated expectations have broadened to wider circles over the past 10 years in that researchers found relationships between communicating expectations and performance indicators in courtrooms (Blanck, Rosenthal, Hart, & Bernieri, 1990), in management (Eden, 1990), and in nursing homes (Brophy, 1983; Learman et al., 1990)

Good and Brophy (1984) suggested ways in which educators may reduce communicating expectations that have negative impacts on students. Among these suggestions were recommendations for:

- setting goals for individuals in terms of minimally accepted standards and indicating to students that they have the ability to meet those standards,

- stressing progress relative to previous levels of mastery by the individual student, rather than comparing the student's performances to performances of others, and
- encouraging students to achieve as much as possible by stretching and stimulating students' minds to achieve.

SLPs are encouraged to communicate positive expectations to clients at all times and to practice these skills by working through the *Therapeutic-Specific Workshop: Form 1, Communicating Expectations*. (There is no DVD accompaniment for this skill.)

### **Motivation** (*Therapeutic-Specific Workshop: Form 2; No DVD Track*)

**Motivation** is defined as a stimulus or force that causes a person to act (Webster's, 1996). In speech-language therapy, this stimulus or force might be any number of things including the client's desire to improve communication skills, or for the clinician, the commitment to optimize the client's communication skills. Sometimes motivating stimuli are considered to be **extrinsic**, caused by something external to the client, or clinician; sometimes the motivating force is **intrinsic**, caused by an internal force or stimulus. Most researchers agree that intrinsic motivation is stronger for impacting learning because intrinsic motivators teach on their own; in this way, children and adults want to learn for the sake of learning (Brandt, 1995; Chance, 1992; White, 1959). For example, White (1959) believed that one of the most important intrinsic motivators was the need to feel competent. White thought that the motivation to achieve competence explained the practice behavior seen in learning and further discussed the feeling of pride in personal effectiveness as an intrinsic motivator. SLPs are encouraged to help clients find intrinsic motivators to keep in the forefront as therapy proceeds. However, when intrinsic motivators appear to have little or no impact on client motivation, systems of extrinsic motivators (token rewards, performance contracts, etc.) may prove helpful. Work through various concepts associated with motivation using *Therapeutic-Specific Workshop: Form 2, Motivation*. (There is no DVD accompaniment for this skill.)

### **🧑‍🎓 Enthusiasm, Animation, and Volume in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 3; DVD Track 3*)

The personality traits found among SLPs tend to be representative of the basic personalities found in the general population: some of us are "bubbly," energetic, and enthusiastic, while others are sedate, serene, and low-key in affect. *Affect* was discussed in Chapter 1 and was defined as the feelings, emotion, mood and temperament associated with a thought (Nicolosi, Harryman, & Kresheck, 2004). Although some SLPs naturally possess an enthusiastic personality, there is no consistent way to tell beforehand whether that enthusiasm will translate into the interpersonal interactions needed for conducting speech-language therapy. **Enthusiasm** is defined as a strong excitement or feeling for

something; a zest or zeal for a subject (*Webster's*, 1996). Often enthusiasm is portrayed in body movements, changes in vocal pitch and volume, or general attributes of animation. *Webster's* (1996) defined **animation** as relating to spirit, movement, zest, and vigor. Some SLPs admit that they are not interested in portraying the animation suggested for working with very young clients, even though some of the same SLPs describe themselves as being enthusiastic. Clinical supervisors, must, therefore, survey student SLPs for expressions of enthusiasm and animation sufficient for effective speech-language therapy. When that level of enthusiasm is not present, it must be taught. This is where the concept of *Showtime* becomes important.

*Showtime*, as discussed in Chapter 1, is used as a concept to help SLPs understand the significance of the therapy provided to clients. The significance of therapy takes precedence over the SLPs personal preferences for expressions of emotions, affect, and enthusiasm. Although not characteristic of—or even preferred as a personal personality trait—animation, role-playing, or otherwise displaying pitch and volume ranges beyond normal may be necessary for SLPs to demonstrate a level of enthusiasm sufficient to keep the client interested in therapy and motivated to perform well in all aspects of therapeutic intervention. Several researchers found that students responded with increased attention and on-task behavior to dynamic, energetic speech, and speech that was perceived as extroverted, displaying expanded pitch ranges, and increased volume and pitch (Betten-court, Gillett, Gall, & Hull, 1983; Nass & Lee, 2000). These vocal traits—dynamic, energetic speech, expanded pitch ranges, and increased volume and pitch—were characterized as the vocal styles used by master teachers for whom children answered 16% more science questions than for teachers with decreased emotional affect. Reissland and Shepherd (2002) found that mother's use of a higher pitch increased the infant's eye gaze toward the mother. Coulston, Oviatt, and Darves (n.d., online resource) found that 77% of children ages 7–10 years adapted the volume of their responses to match the volume of animated speakers; the children increased volume as the animated speaker's volume increased, and they decreased volume in response to speakers using a decreased volume. These studies suggested that enthusiasm, indicated by vocal manipulations for both pitch and volume, has a positive impact on a young child's attending, academic engagement, and focus on the speaker. However, it was unclear as to the age limits of generalizations of these impacts. For example, most studies involving the impact of pitch, perceived animation, and volume manipulations in the voice were conducted on children age 10 years and younger. It was uncertain whether the enthusiastic voice had an impact on older children and adults. The SLP, therefore, must make a clinical judgment as to how much animation is needed for each client, depending on age, functioning level, and therapeutic objectives.

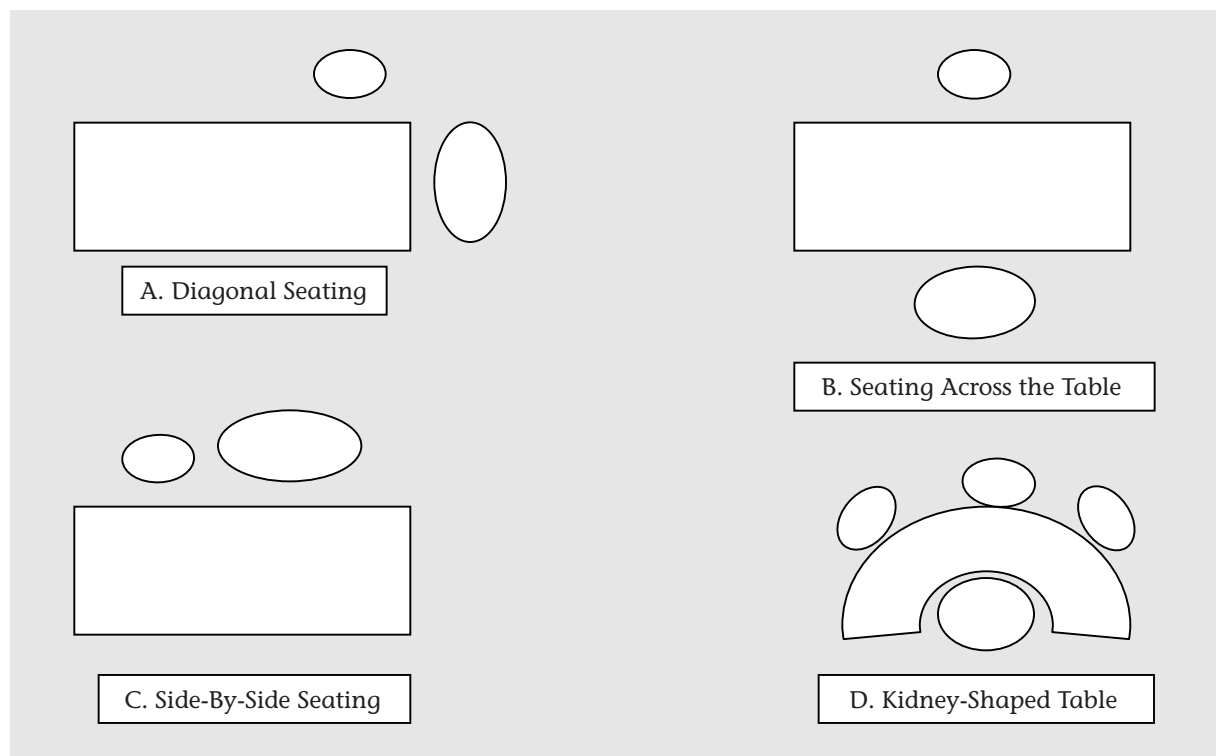
Nonverbal affect was found to be important for infants reading social signals of their mothers. In fact, several researchers found that infants perceived stimuli as pleasant or unpleasant, depending on adult facial expressions (Klinnert, Campos, Sorce, Emde, & Svejda, 1983; Mumme, Fernald, & Herrera, 1996). Similarly, nonverbal communication for the SLP such as eye contact, facial expression, body language, and even proximity are important communicators of enthusiasm and animation during speech-language

therapy. For example, a common nonverbal expression of excitement and enthusiasm is the “high five.”

SLPs are encouraged to work toward manipulations and controls of both verbal (vocal pitch and volume range manipulations) and nonverbal (facial expressions) stimuli in the provision of speech-language services. Activities associated with *Therapeutic-Specific Workshop: Form 3*, including DVD Track 3, are designed to help with increasing these skills.

### **👤 Seating Arrangements, Proximity, and Touch in the Therapeutic Process (*Therapeutic-Specific Workshop: Form 4; DVD Track 4*)**

Numerous researchers addressed the impact of seating arrangement on learning and behavior (Cegelka & Berdine, 1995; Miller, 2002; Rieth & Polsgrove, 1994). Miller (2002) indicated that design and arrangement of the physical dimensions of a classroom are very important because they affect student learning and behavior. SLPs often work in small physical spaces regardless of whether employed in clinics, hospitals, or schools, and typically, we use a variety of seating arrangements. Among the seating arrangements used by SLPs are (a) diagonal-table seating, (b) across-the-table seating, (c) side-by-side table seating, and (d) kidney-shaped table seating. (See Figure 5–3 for schematics of these seating designs.)

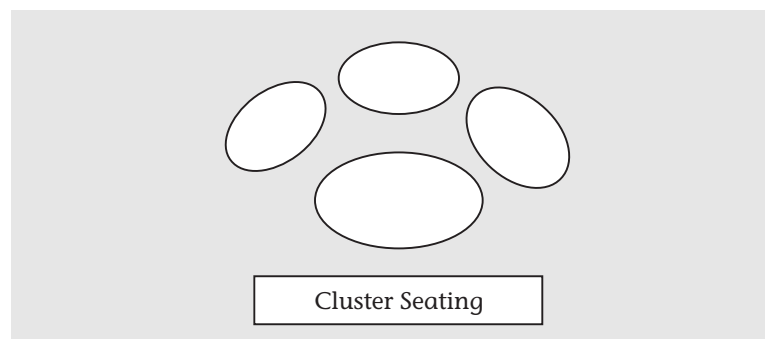


**Figure 5–3.** Four seating arrangements typical of speech-language therapy settings: **A.** Diagonal Seating; **B.** Seating Across the Table; **C.** Side-By-Side Seating; **D.** Kidney-Shaped Table.

No research was available to suggest the better seating model for learning during speech-language therapy, but most SLPs can be observed using one or more of the mentioned arrangements, depending on the work setting, number of clients in the session, and nature of the goals of the client. Wengel (1992) especially urged teachers to think about instructional goals and to select a seating arrangement that best supports those goals. Additionally, Miller (2002) listed both cultural diversity of the learner and specific needs dictated by the disability of the client as considerations for choosing seating arrangements. For example, Wortham, Contreras, and Davis (1997) found that persons from Latino families tended to prefer seating arrangements that allowed group interaction, such as semicircle seating as offered in the kidney-shaped table arrangement. Native Americans and African-Americans tended to prefer group interaction for learning as well (Lewis & Doorlag, 1991; Sadker & Sadker, 2005). However, the size of some kidney-shaped tables must be monitored (if this type of table is used) to help increase interaction among clients. Often the tables are so large that clients are not seated near enough to each other to foster the type of interaction desired.

Another type of semicircle arrangement is presented in Figure 5-4. This type of seating is an interactive arrangement for groups of clients focusing on communication skills that can be enhanced by peer or group interactions and models. In this seating arrangement, **cluster seating**, the SLP chooses a semicircle for interactive purposes, but removes the table to achieve better proximity and increased ease in creating opportunities to facilitate interaction among clients.

Both cluster seating in chairs and cluster seating on the floor are possible. The advantage of this type of seating is that it increases the intimacy and effectiveness of the direct teaching aspects of therapy; this seating allows the SLP to quickly and effortlessly achieve proximity needed for addressing learning modalities, describing, demonstrating, modeling, cueing, prompting, and other interactions of therapy. The disadvantage of this seating arrangement is that stimulus materials and data collection must be managed differently because there is no table on which to place materials or data sheets. To compensate for this, one SLP was observed using pails for managing materials. Stimulus materials for the session were placed in a pail on the floor beside the SLP on her right side. As the SLP

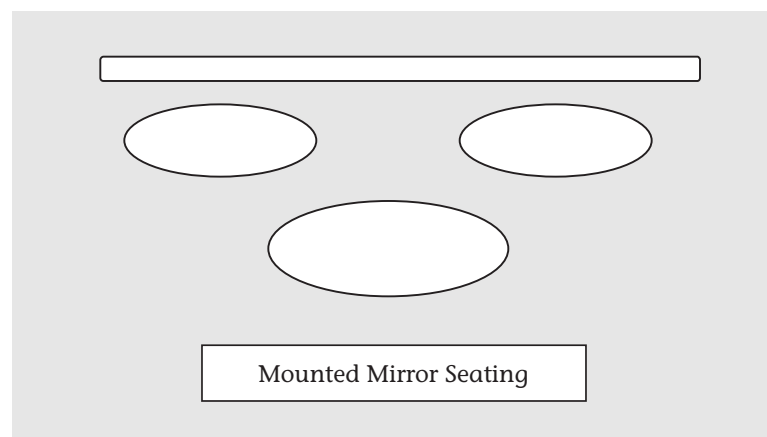


**Figure 5-4.** A schematic of cluster seating, a tableless grouping for sitting in chairs or on the floor.

finished with an item, it was placed in another pail on the floor to her left. The SLP used a small clipboard for support during writing for data collection. Considerations for the management of therapy materials and data collection in relation to the space available to the clinician once acceptable seating arrangements are established are important. In particular, SLPs need to consider space requirements for both the material being used in therapy and the amount of space required in taking data during the session. Data collection is addressed later in this chapter, and materials management is addressed in Chapter 7.

Another effective, but not as often used, seating arrangement is **mounted mirror seating**. In this arrangement, the SLP seats clients facing a large mirror that is mounted on the wall. The SLP then sits behind the clients. This type of seating works well for clients who require a lot of visual feedback for placement of the articulators, such as in the initial phases of placements for phonemes, or for clients who may need visual feedback for facial muscular movements or head or torso posture following stroke or traumatic brain injury. (See Figure 5–5 for a schematic of this seating arrangement.)

**Proximity**, the degree of closeness in physical distance between persons, as related to increased learning was addressed by a number of researchers involved in both teacher expectation and nonverbal communication investigations (Burgoon, Stern, & Dillman, 1995; Miller, 1988; Ridling, 1994; Sills-Briegel, 1996). In a study investigating the impact of five nonverbal cues—eye contact, proximity, body positioning, smiling, and touch—Burgoon et al. (1995) found that when the power of the cues were considered, relative to one another, proximity carried the greatest weight. In a study addressing the impact of proximity, Miller (2002) listed four categories of informal space that were established for the United States: **intimate space** (up to 1½ feet), the zone reserved for close relationships, sharing, protecting, and comforting; **personal space** (1½ to 4 feet), informal conversations between friends; **social space** (4 to 12 feet), generally accepted for interactions



**Figure 5–5.** Mounted mirror seating. The SLP and clients each face a large mirror mounted on the wall. Typically, the SLP sits slightly behind the clients when working with a group. The SLP may sit beside the client if working individually.

among strangers, business acquaintances, and teachers and students; and **public space** (12 to 25 feet), one-way communication as exhibited by lecturers. The distance between SLP and client is extremely important for therapeutic success. Therefore, the recommended distance for SLP to client interaction is the lower limits of personal space, or no more than 2 feet distance between the SLP's and client's faces for typical interactions. Of course, there are times when the SLP may need to move closer than 2 feet to the client for therapeutic interaction, and times when the distance between the SLP's face and the client's face will be greater than 2 feet, depending, of course, on therapeutic objectives.

SLPs should respect the client's cultural and personal dictates for personal space preferences and comfort levels with **nonthreatening therapeutic touch**, touching the client's shoulder, upper arm, neck, torso, and facial areas in order to support clinical instruction. For example, the SLP may need to touch the client's thorax or diaphragm areas for instruction regarding proper breathing for speech. In other instances, portions of the head may need to be touched to help make a point during instruction regarding impacts of stroke or dementias. However, some Southeast Asians may feel it to be spiritually inappropriate to be touched on the head, whereas African-Americans may feel a touch on the head to be demeaning rather than kind (Sadker & Sadker, 2005). Sadker and Sadker further noted variability in perceptions of "getting in someone's face" as clinicians may need to do to be effective in therapy, in that such closeness may either be perceived as threatening or kind. One way to eliminate or lessen the negative perceptions that clients may form regarding proximity and therapeutic touch is to simply discuss the steps or actions the clinician will take in providing services. For example, telling a client that the chin will be touched to help establish proper swallowing posture and discussing any reservations clients might express (verbally or nonverbally), helps lessen client feelings of violation of any kind. However, SLPs are cautioned that Asian-Americans and Native-American children are likely to avoid asking for help, even in resolving a discomfort related to interaction (Sadker & Sadker, 2005). In these instances, the SLP will need to be sensitive to both the client's discomfort with therapeutic touch and the discussion of that discomfort. SLPs will need to take the lead in ensuring the client's comfort by initiating appropriate discussion of the client's needs in these areas.

In addition to consideration of the distance between the SLP's face and the client's face for determining appropriate proximity for therapy, SLPs are urged to use an informal rule for determining appropriate therapeutic proximity. This rule, referred to as the **hand-to-chin rule**, dictates a proximity span whereby, when the clinician's upturned palm is extended to touch under the client's chin, there is a comfortable reach without over-extension of the elbow to achieve the touch. On occasion, it may be necessary to lessen this space for teaching specific skills, and on other occasions, a distance of a few more inches more than a hand-to-chin touch may still allow for maximal client learning.

Regardless of the parameter used to consider appropriate proximity for therapy (distance between the SLP's face and the client's face, or the hand-to-chin rule), the physical needs for clients related to disabilities will need to be considered when determining proximity for therapy. For example, clients in beds, in wheelchairs, or in casts may require

more than typical space for proximity during therapy. In these situations, the SLP must make decisions regarding proximity in relation to best fit for achieving proximity for maximal client progress in speech-language therapy.

In summary, in all instances of establishing seating arrangements and proximity for therapeutic touch and intervention, the clinician should remember (a) the established goals for the client, (b) needs of the client related to cultural diversity, and (c) needs of the client dictated by the presenting disability. Activities associated with *Therapeutic-Specific Workshop: Form 4*, including DVD Track 4 are designed to help with increasing these skills.

### ⊕ Preparation, Pacing, and Fluency for Therapeutic Momentum (*Therapeutic-Specific Workshop: Form 5; DVD Track 5*)

**Therapeutic momentum** is defined as the speed, thrust, or force of moving between sections of the session. For example, in Chapter 6, three major sections of a therapy session are addressed, the *introduction*, *body*, and *closing*. Regardless of techniques used, SLPs must promote therapeutic momentum through proper preparation, pacing, and fluency as therapy proceeds through the major sections of the session.

Miller (2002) noted that it is important to maintain momentum during teaching so that lessons progress without lulls that result in **nonproductive time**, time that is wasted during therapy. Toward the end of Chapter 1, SLPs were encouraged to adopt a *minutes matter attitude* to avoid wasting time during therapy and to increase time-on-task. Time-on-task is increased when the SLP is well prepared and organized for progressions between and within various sections of therapy. When the clinician is *organized*, understands the order of segments of therapy to be addressed, and has all needed materials properly placed at hand, time-on-task and instructional momentum are enhanced. In fact, Miller (2002) reported that the best way to maintain instructional momentum is to be *prepared* and *organized*. Imagine the loss of momentum, the lull in time, and the nonproductive therapeutic time that occurs when the SLP has to stop therapy to go to a cabinet, shelf, or desk to find an item of material needed for the session.

A number of researchers (Good & Brophy, 1984; Miller, 2002) found that quick-paced lessons facilitated student involvement in learning and helped maintain momentum. Miller (2002) indicated that **quick-paced lessons** refer to the *presentation rate* used in teaching, not the number of minutes or total amount of time spent in teaching a skill. For example, the customary amount of time that a client is scheduled for therapy per session is not shorted by quick-paced presentations of information. Rather, quick-paced lessons refer to the SLP's skilled practice of moving effectively and efficiently through the task of presenting stimuli and eliciting responses from the client and moving smoothly from one segment of therapy to the next. Occasionally, however, the SLP may choose to purposely slow the pace, just for a few moments, to (a) allow a little more time for the client to process more challenging information or (b) change the impetus for a moment to reorient the client's attending and focus skills.

The smooth movement or transition between various parts of therapy is referred to as **fluency** within the therapeutic session. Fluency is promoted by quick-paced lessons and good preparation and organization for the session; fluency ensures the absence of “fumbling around” during the session, and it helps the SLP avoid repeated uses of **nonsemantic fillers**, the “ahs,” “ums,” “okays,” and “let me sees” often characteristic of those unsure of what should happen next in therapy. Another way to increase fluency within the flow of the therapeutic session is to use a guide (physical or mental) to help ensure that the SLP is aware of both the scope and sequence of the session.

**Scope** refers to the range or depth of activities of the session; **sequence** refers to the order in which the activities occur within the session. For example, when teaching a session on following one-step directions using a scope and sequence guide to help the session remain fluent, or flow well, the SLP might establish a scope (range of activities) of three one-step commands given to the client to assess skills in this area. A scope that includes asking the client to follow a one-step command just once during therapy is not enough range or depth of the activity to assess client skills, whereas asking the client to follow a one-step command 50 times during the session is far more than the range or depth needed to assess this skill. In this same scenario, the SLP establishes a *sequence*, or order, for not only which of the three questions used should be asked first, second, and third, but which sequence helps the SLP determine where to go or what to do next in the session, depending on client responses. Other guides to help increase fluency in the session are visuals such as graphic organizers (discussed in Chapter 3), charts, posters, computerized projections, and so forth. Some SLPs use note cards, lesson plans, color-coded files, or other media aids to serve as props or reminders of progression of therapy so that both momentum and fluency are maintained.

In summary, therapeutic momentum is enhanced by the SLP who is well prepared and organized for therapy, uses a quick pace for presenting stimuli and eliciting responses, and maintains fluent movement between sections of therapy throughout the session. Activities associated with *Therapeutic-Specific Workshop: Form 5, including DVD Track 5* are designed to help increase these skills.

### **Antecedents: Alerting Stimuli, Cueing, Modeling, and Prompting** (*Therapeutic-Specific Workshop: Form 6; DVD Track 6*)

Hegde (2001) noted the following regarding **antecedents**: “Events that occur before responses; stimuli or events the clinician presents in treatment. Antecedents may be objects, pictures, re-created or enacted events, instructions, demonstrations, modeling, prompting, manual guidance, and other special stimuli” (p. 11). For purposes of this discussion, the events that will be highlighted as antecedents are *alerting stimuli, cueing, modeling, and prompting*.

### ***Alerting Stimuli***

**Alerting stimuli** are the various means of drawing the client's attention to the coming treatment stimuli (Hegde, 2001); alerting stimuli serve, essentially, as a "heads-up" alert to help the client prepare for the stimuli to which a response is required. Alerting stimuli may be verbal such as, "Watch my face," or nonverbal, such as holding up a hand to alert the client that the stimulus is about to be presented.

### ***Cueing***

**Cueing** is an aid to promote correct responses (Nicolosi et al., 2004). Cues may be (a) auditory such as verbal expressions that may include stress, pitch, quality, intonation, and duration markers; (b) visual such as gesture, posture, or facial expression; and (c) tactile-kinesthetic such as touch to the speech mechanisms.

### ***Modeling***

Hegde (2001) defined **modeling** as the clinician's production of a target behavior for the client to imitate and listed the following suggestions for using modeling.

- Provide live or mechanically delivered model (audio or videotaped or computer presented)
- Use the client's own correct response as a model (presented mechanically)
- Model frequently in the beginning stage of treatment
- Ask the client to imitate as closely as possible
- Reinforce the client for correct imitations or approximations
- Withdraw or fade modeling in gradual steps as the client's imitative responses stabilize (pp. 377–378).

A typical model is the clinician's correct production of the /s/ phoneme for the client to imitate during traditional articulation therapy. Additionally, clients may serve as the models for peers during group therapy. Meyer (2004) noted several possible problems that SLPs may face in modeling: (a) *unnatural productions*, (b) *ungrammatical utterances*, and (c) the "OK" syndrome. Meyer referred to **unnatural productions** as pronunciations presented to the client in which unnatural stress, syllabification, or other abnormalities in modeled presentation occur. An example includes "but ton" for "but on." **Ungrammatical utterances**, the use of grammatically incorrect language during therapy, was also discussed by Meyer (2004). A typical example often seen in SLPs in the beginning stages of therapy includes the use of feedback to the client in the form of the grammatical incorrect, "You did good!" rather than the grammatically correct, "You did well!" Meyer (2004) described the "OK" syndrome as the overuse of "OK," including five possible reasons why SLPs use "OK." Meyer noted that "OK" is used (a) as a conversational, or nonsemantic filler, (b) as a tag question, (c) to provide feedback, (d) as a positive reinforcer, and (e) as

an answer to a question. Based on observations of SLPs throughout training, two aspects of the “OK” syndrome were noted.

1. It appeared that the “OK” syndrome diminished over time, particularly its use as a nonsemantic filler and as a tag question, as the SLP gained experience and confidence in therapy. Often as skills in preparation, pace, and fluency increased, unnecessary uses of “OK” appeared to decrease.
2. SLPs whose primary service delivery was individual therapy appeared to maintain the unnecessary uses of “OK” longer than SLPs conducting mostly group therapy. A speculation for this perceived phenomenon is that SLPs engaged in group therapy are responsible for more semantic content due to the requirements of interactive therapy; perhaps, there simply are less noncommunicative “spaces to fill” with nonsemantic verbalizations. In other words, because of the interactive nature of group therapy, there simply may be less time for nonsemantic units.

SLPs should record themselves periodically during therapy and count the number of inappropriate uses of “OK” during therapy. Increased skills in therapy should result in decreases in unintentional uses of “OK”.

### **Prompting**

**Prompting** is using special stimuli, verbal or nonverbal, to increase the probability that the client will respond in a desired manner. For example, if prompting a client to respond with the word *nose*, the clinician may say, “I smell with my” while either pointing to his or her nose, at the same time verbally prompting with the /n/ phoneme. Hegde (2001) recommended the following regarding prompting.

- Prompt promptly, as the client hesitates (e.g., in treating naming in a client with aphasia: “What is this?” “The word starts with a /t/.”)
- Prompt more frequently in the beginning to reduce errors
- Prefer a subtle or short prompt to ones that are loud or long (e.g., in training a person who stutters to speak slowly: “Slower” instead of “Speak at a slower rate.”). Prefer a gesture to a verbal prompt (e.g., in training a person who stutters to speak slowly: make a hand gesture to suggest a slower rate.)
- Use Partial Modeling as a prompt
- Fade prompts as the responses become more consistent (pp. 411–412).

In summary, antecedents such as alerting stimuli, cueing, modeling, and prompting hold valuable places in therapeutic intervention. The SLP should practice these skills and become comfortable using them in the therapeutic process. Activities associated with *Therapeutic-Specific Workshop: Form 6, including DVD Track 6* are designed to help with increasing these skills.

## **Direct Teaching: Learning Modalities, Describing/Demonstrating, Questioning, and Wait-Time in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 7; DVD Track 7*)

**Direct teaching** for speech-language therapy refers to instances when the SLP's task is to *teach, instruct, or train* the client in a new skill. Although SLPs are not certified as teachers, there are times when best teaching practices are beneficial in helping SLPs accomplish therapeutic objectives. During those segments of therapy, the SLP is encouraged to consider several concepts from teaching and learning literature, namely, information regarding learning modalities, describing, demonstrating, questioning skills, and application of appropriate wait-time during instruction.

### **Learning Modalities**

Typically, SLPs rely on visual, auditory, and tactile (expanded to include tactile/kinesesthetic) modalities for teaching clients new information. This means that stimuli are presented (a) visually to address the visual modality, (b) verbally to address the auditory modality, and (c) through touch to address the tactile/kinesesthetic modality. However, other modalities such as taste and smell are used by SLPs as well, if client goals determine the need for these stimulations. Although most typical learners are capable of learning through all modalities, learners most often have a **preferred learning modality**, the sensory modality through which information appears easiest to learn (e.g., auditory, visual, or tactile/kinesesthetic). (See Chapter 3.) As professionals responsible for establishing goals for clients, and planning successful activities designed to address those goals, it is important for SLPs to be aware of the various modality preferences presented by clients.

### **Describing and Demonstrating**

Major components of teaching are describing and demonstrating. **Describing** refers to telling or detailing the major features, functions, characteristics, or aspects of an item or concept deemed important. For example, when describing a ball, the SLP might say the following: "It's round and it bounces. We can throw it, catch it, roll it, or kick it." Descriptions may include the following **attributes**, the primary characteristics or features of the item being described: *size, shape, color, function, and remote associations*. **Remote associations** are defined as distal times, locations, or activities when the client may have encountered the item being described. For example, a remote association for a ball might be, "There are three balls in your classroom."

**Demonstrating** refers to using well organized, step-by-step explanations in language that is easily understood to give examples. Teacher demonstrations of materials and concepts to be learned were found to be helpful teaching tools (Rivera & Smith, 1982). The use of visuals, models, actions, gestures, and so forth may also help in making demonstrations more powerful for clients. Demonstrations paired with feedback (Rose,

Koorland, & Epstein, 1982) and demonstrations paired with modeling (Rivera & Smith, 1982) were found to be helpful to children in generalizing learning. Demonstrating using short, repetitive units such as sentences or actions are recommended. For example, in demonstrating how to turn on overhead lights, the SLP might go over to the light switch and turn on the light while saying, "I flip the switch up, and the light comes on; I flip the switch down, and the light goes off. Watch again, flip up, the light goes on; flip down, the light goes off. Up, goes on; down, goes off. Up, on; down; off." SLPs should become comfortable in designing demonstrations for clients that are systematic and effective teaching tools. The tendency to "talk too much," **loquaciousness**, as described by Meyer (2004) should be avoided during demonstrations and at other times during therapy when possible. However, due to the nature of describing and demonstrating, therapy during these times is likely to require more talking from the SLP than might be necessary at other times.

### **Questioning**

**Questioning** is a technique of direct teaching designed to assess learning and facilitate further learning (Miller, 2002). Questions help focus attention on important information and keep students actively involved in the session (Gall, 1984). Hegde (2001) listed the following four types of questions

1. Intonation questions: Essentially declarative statements (not syntactically correct questions) that serve as questions because of their unique intonation
2. Tag questions: Declarative expressions with an interrogative tag added at the end (e.g., "You can do it, can't you?")
3. Wh-questions: Question forms that begin with *who*, *what*, *which*, *when*, *where*, *whose*, *why*, and *how*
4. Yes-No Questions: Question forms that require either a Yes or a No as the response (p. 418).

Questioning is a valuable part of direct teaching, but SLPs are encouraged to use questions for intended purposes under the concept of "*taking it to the bank*," a term used to help SLPs understand that answers to questions should not be assumed present in the client's repertoire of skills, unless the SLP has exposed the client to instruction designed to *deposit* the information in the client's *skills bank*. Remember the purpose of questions (assessing learning and fortifying additional learning) and use questions thoughtfully and appropriately.

### **Wait-Time**

**Wait-time** is the amount of time the SLP waits for a response from a client after asking a question or giving a command. Cotton (1995) supported the use of longer wait-time during questioning. A wait-time of between 3 to 5 seconds used by classroom teachers following questioning was generally reported in the literature (Rowe, 1986; Tobin, 1980). However, SLPs are encouraged to consider wait-time in reference to goals of the client and

his or her communication skills. For example, a high-functioning client with goals for increasing semantic, syntactic, or pragmatic skills within challenging contexts may be given more wait-time than a client with moderate mental retardation who needs immediate interactions for best learning. Based on prior discussion regarding loquaciousness, waiting 3 to 5 seconds for clients to respond following questions or commands may be difficult. Fortunately, interactions not involving questions or commands do not require the 3 to 5 seconds wait time.

In summary, direct teaching is often required during the therapeutic process. SLPs are encouraged to develop skills in using various learning modalities, describing, demonstrating, questioning, and appropriate use of wait-time to enhance clinical skills. Activities associated with *Therapeutic-Specific Workshop: Form 7, including DVD Track 7* are designed to help with increasing these skills.

### **Stimulus Presentations: Shaping (Successive Approximations)** (*Therapeutic-Specific Workshop: Form 8; DVD Track 8*)

**Stimulus presentations**, the methods used for presenting stimuli during therapy, vary according to the stage of therapy being addressed. Stimulus presentations may be as simple as a verbal model given to help the client understand how the /s/ phoneme should sound. However, some stimulus presentations are considerably more involved. For example, when trying to determine the best method of presenting a stimulus to a client experiencing difficulty understanding the concept for “over,” the SLP may need to consider several parameters before proceeding. Aspects of teaching (presented in the prior section) will need to be considered, along with the concept of consistency in method of presentation. One commonly occurring aspect of therapy that requires consistency in presentation is the bridging of client skills between the time when the client is unable to produce the desired response and the eventual acceptable production of the response. This bridging concept is *shaping* or *successive approximations* and SLPs are encouraged to develop skills in effectively shaping client responses in therapy.

**Shaping (successive approximations)** is a technique used for obtaining responses that are not in the client’s repertoire (Nicolosi, Harryman, & Kresheck, 2004). These researchers indicated several steps for *shaping* a client’s response:

First, the desired response is specified, and then responses which resemble that response (even remotely) are reinforced. Once the frequency of these responses has been increased, the subject must emit a response even more like the desired one; at this point, the technique is a special form of differential reinforcement. The criterion for reinforcement is continuously shifted in the direction of the desired response until that response is emitted, reinforced, and acquired. (p. 279)

Hegde (2001) reported that shaping, or successive approximations, was supported by experimental evidence and was viewed as highly useful in teaching a variety of skills. Hegde listed the following steps to take in using successive approximations.

1. Select a terminal target response (e.g., the production of /m/ in word initial positions)

2. Identify an initial component of that target response the client can imitate (e.g., putting the two lips together)
3. Identify intermediate responses (e.g., humming or other kinds of vocalizations, opening the mouth as humming is continued)
4. Teach the initial response by modeling an immediate positive reinforcement (e.g., putting the tips together on several trials)
5. In successive stages, teach the intermediate responses (e.g., adding humming when the lips are closed; opening the mouth when the humming is continued; adding other sounds to form words)
6. Continue until the terminal response is taught (p. 442).

To continue Hegde's example, if the terminal response is /m/ in the word *man*, the SLP should model and elicit the target word *man*. Once the client makes an error in producing /m/, the clinician immediately responds to the error by reinforcing the client's effort (attempt) to make /m/, telling the client what was correct about the /m/ sound, what aspects were incorrect about the /m/ sound, then modeling the correct /m/. The SLP then directs the client through a systematic sequence of shaping or successive approximations to elicit a correct /m/ in the word *man*. Four parts of the sequence are required at all phases of successive approximations to achieve correct production of /m/ in *man*: (a) telling the client what is about to be elicited, (b) modeling the structure to be elicited, (c) eliciting client's production of the modeled unit, and (d) reinforcing the client's effort. Note this progression in the sequence in Figure 5–6.

SLPs are encouraged to practice shaping, or successive approximations, for enhanced therapeutic skills. Activities associated with *Therapeutic-Specific Workshop: Form 8, including DVD Track 8* are designed to help with increasing these skills.

### **Positive Reinforcers: Verbal Praise, Tokens, and Primary Reinforcers** (*Therapeutic-Specific Workshop: Form 9; DVD Track 9*)

Nicolosi et al. (2004) defined **positive reinforcers** as “anything, following a response, which increases the frequency of that response; may be extrinsic, such as a token, edible item, or money, or social, in the form of praise” (p. 263). *Positive reinforcers*, then, might take the form of the clinician's exclamation, “Great job!” or “Easy for you!” Gestures such as the high five, or other gestures of excitement such as handclapping, may serve as a positive reinforcer for some clients. For others, a statement in conversational tones such as, “That was exactly correct; your tongue was in exactly the right place” is sufficient. SLPs are encouraged to become proficient in using verbal praise as a positive reinforcer and to *avoid the use of edibles as positive reinforcers if at all possible during therapy*.

Clinician	Client
Tell me <i>man</i> .	-an.
I saw you trying, and your lips almost touched together, but you left off the /m/. Tell me /m/.	/m/
Wonderful. Your lips touched together, and you made a strong “humming” sound. Now, let’s put that sound back into your word. Let’s break your word into two parts: /m/ an.	/m/ an
Perfect! Good /m/ sound; good “an.” Now, let’s put them a little closer together: /m/ an	/m/ an
Very good on both parts. Now, let’s blend the sounds together: “man”	“man”
Great job! You made a good /m/ with your lips touching together, and you put that /m/ back into the word <i>man</i> .	

**Figure 5–6.** Shaping/successive approximations for eliciting /m/ in *man*.

### **Verbal Praise**

Hegde (2001) described **verbal praise** as a type of reinforcement in which the client is praised for giving correct responses or for imitating modeled responses. Hegde offered the following suggestions regarding the use of verbal praise as a positive reinforcer.

- Praise the client promptly for producing or imitating a correct response
- Use such phrases as “Good Job!” “I like that!” “That was correct!” “Excellent!” and so forth; select the phrases and words that are appropriate for the client’s age, education, and cultural background
- Deliver verbal praise in a natural manner, with appropriate emotion and facial expression
- Keep an accurate record of response frequency to make sure that the verbal consequences are indeed functioning as reinforcers (i.e., the response rate is increasing)

- Use other forms of reinforcers if verbal praise does not work (e.g., tokens or primary reinforcement) (pp. 547–548).

SLPs are encouraged to become proficient in using verbal praise as a reinforcer. However, when verbal praise proves ineffective, additional reinforcers may be explored.

### **Tokens**

**Tokens** are items that have little inherent value (chips, tickets, stars, marks on a tally sheet, etc.), but which may be given as a temporary reinforcer to be later exchanged for a **backup reinforcer**, something that the client does value (markers, book or video check-outs, etc.). A system of behavior management under the concept of *token economy* will be discussed later in this chapter. However, for purposes of this section, Hegde (2001) indicated that SLPs should set a low ratio in the beginning stages of using tokens as a reinforcer (e.g., a one-to-one [1:1] ratio in which one token may be exchanged for one backup item), then gradually increase the number of tokens needed to obtain the desired backup reinforcer. Backup reinforcers may be *tangible reinforcers* or *nontangible reinforcers*. **Tangible reinforcers**, nonedible items that are reinforcing, are used as rewards on occasion to provide variety in reward routines so that the effectiveness of a verbal (social) reinforcer is not diminished (Kerr & Nelson, 2002). For example, clinicians often use stickers as tangible rewards. **Nontangible reinforcers**, reinforcers that often constitute actions or activities as a reward, may also serve to provide variety in reinforcement routines. For example, a teenage female client with moderate mental retardation was intrigued with fashion and makeup. She worked diligently in the clinic in exchange for the opportunity to pose for a photograph in the campus photo lab. Of course, this nontangible backup reinforcer of *posing for the photograph* eventually became a tangible backup reinforcer when the client was allowed to work toward the reward of obtaining the photograph to take home. Backup reinforcers should be items that are readily available, chosen by the client, and given in exchange on a predetermined ratio (Hegde, 2001).

### **Primary Reinforcers**

**Primary reinforcers** are reinforcers that do not depend on prior learning and typically satisfy a biological need (e.g., hunger or thirst). Hegde (2001) suggested using primary reinforcers with clients who do not respond well to social reinforcers such as verbal praise. Hegde further suggested pairing the primary reinforcer with a social reinforcer and gradually withdrawing the primary reinforcer. Primary reinforcers for SLPs often take the form of **edible reinforcers**, food given as a *positive reinforcer* to increase the frequency of a desired response. Although there are clients for whom primary reinforcers seem most appropriate (young, nonverbal, low-functioning clients), Kerr and Nelson (2002) identified four difficulties with the use of edible reinforcers with students not responding well to *social reinforcers*.

1. The student must be hungry for food to be effective.
2. Food preferences negate the value of some foods as reinforcers.

3. Health factors such as food allergies and parental preferences must be taken into account.
4. Many schools have policies restricting the use of edible items in classrooms.

Additionally, because of possible undiagnosed swallowing disorders, SLPs are cautioned about the use of food as a reinforcer and should *avoid food as a reinforcer* whenever possible; the liability for mishaps related to giving a client food are simply too great, in many cases. Kerr and Nelson (2002) added that “fortunately, behavior analysis technology has advanced to the point where teachers seldom have to rely exclusively on edible reinforcement” (p. 140).

Regardless of whether positive reinforcers are tangible or nontangible, a *schedule of reinforcement*, how often the clinician reinforces following client responses, should be taken into consideration during therapeutic intervention. Two specific reinforcement schedules appear to have strong applicability to the speech-language pathology profession: a *continuous schedule of reinforcement* and an *intermittent schedule of reinforcement*. In a **continuous schedule of reinforcement**, the client receives a reinforcer following each response. In an **intermittent schedule of reinforcement**, the client receives a reinforcer only after a certain predetermined number of responses, for example, after 3, 5, or even 10 responses. A continuous schedule of reinforcement is often more powerful in the beginning stages of therapy, whereas the intermittent schedule of reinforcement is typically reserved for intermediate and advanced stages of therapy (Hegde, 2001).

In summary, SLPs are urged to take advantage of recent technology to avoid using food as a primary reinforcer when possible and to become proficient in using verbal praise, tokens, and primary reinforcers. Activities associated with *Therapeutic-Specific Workshop: Form 9, including DVD Track 9* are designed to help with increasing these skills.

### **Corrective Feedback in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 10;* *DVD Track 10*)

Beginning SLPs often experience difficulty giving corrective feedback because of lack of confidence in pinpointing (a) whether a response was correct, or (b) what exactly about the response was correct or incorrect. **Corrective feedback** is the information the clinician gives the client regarding the quality, feature, or correctness of a preceding response. When the beginning clinician is unclear about the nature of that response, it is difficult to adequately give corrective feedback. Nonetheless, beginning SLPs are encouraged to think critically, and systematically, about the nature of client responses in efforts to develop skills in corrective feedback.

Corrective feedback is most often *verbal* and is based on the SLP’s skills in correctly determining the correctness of client responses and communicating these findings to the client immediately after a response. The following steps are recommended for increasing accuracy of assessment of client responses.

1. *Increase knowledge of the objective/target in the client’s response.* For example, if the target of client’s response is the /s/ phoneme, the clinician should

become familiar with the *place and manner* for the production of /s/ and should become comfortable with his or her own ear training for recognition of correct /s/ sounds.

2. *Compare the client's response to the expected target.*
3. *Task-analyze the response to help pinpoint specific features of the response for correctness.* For example, are the structures and functions of the articulators adequate for the /s/ sound production? Did the posture of the client's body adequately support correct production of /s/? Was the client's tongue in the correct place? Did the airstream achieve the directionality needed to be emitted from the mouth properly?
4. *Explain to the client the aspects of the target /s/ that were correct, based on results of the task-analysis.*
5. *Address the feature/aspect of the /s/ revealed as incorrect.* This step is accomplished through use of any number of techniques designed to teach and demonstrate correct production of /s/ through clinician model or through other presentation avenues.

Additionally, Hegde (2001) recommended minimizing the negative connotations associated with corrective feedback by giving more positive than negative points during corrective feedback. As a rule, always communicate to the client the aspects of production that were correct, first, then add the aspects that were incorrect along with the analysis of why the production was incorrect. Activities associated with *Therapeutic-Specific Workshop: Form 10, including DVD Track 10* are designed to help with increasing skills in corrective feedback.

### **Data Collection in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 11;* *DVD Track 11*)

**Data collection** is recording client responses during the therapeutic session. There are any number of formats for taking data, and SLPs are encouraged to select a method that is both simple to manage on a daily basis and effective for accuracy in recording client responses. Some SLPs prefer a simple (+) or (-) system of data collection, whereby (+) equals a correct client response, and a (-) equals an incorrect client response. Others prefer a (1) or (✓) system where (1) equals a correct client response and (✓) equals an incorrect client response. Simpler, still, may be a system of "tick marks" as used in counting where a (l) equals a correct client response and an (X) equals an incorrect client response. Additionally, "clickers" for data collection are commercially available. Generally, SLPs may use any desired system for marking and tallying client responses as long as consistency in data collection is maintained.

**Data collection forms**, the form used to note or write results of the responses of clients for tally and analysis, are useful for data collection. Some forms are simple base-10

formats allowing up to 10 client responses to be recorded on a line or in a block. Other data collection forms are more creative and represent artistic flair in design. These forms may allow data collection on various shapes or colors set in the context of familiar themes. For example, there may be 30 brightly colored apples on a tree, with the 30 apples serving as the spaces for data collection of client responses or *clinical trials*.

**Clinical trials** are defined as structured opportunities for the client to produce a response in therapy. Hegde (2001) discussed a number of different opportunities for the client to respond during therapy intervention, that is, during establishment of baseline data and during treatment. Clinical trials also occur as part of evaluation/assessment when the clinician uses repeated opportunities for the client to respond in an effort to determine amounts of progress made on a specific therapeutic goal. For example, the clinician determines the percentages of correct productions on a specific objective by asking the client to repeatedly produce the target of the goal a specified number of times (clinical trials); the clinician determines the amount of progress by comparing the number of correct trials to the number of opportunities to produce the target. For example, if the client achieves 90% correct production of /k/, this result means that the client correctly produced /k/ 9 times out of 10 clinical trials. Computing the percentages of correct productions of targets on clinical trials is a widely used format of *collecting data* during collection of baseline data, therapeutic interaction, and assessment/evaluation activities.

The primary issue in taking data is more focused on consistency in taking data than in the method used or the forms on which tallies are made. SLPs are encouraged to become comfortable in managing data collection throughout a therapeutic session. Activities associated with *Therapeutic-Specific Workshop: Form 11, including DVD Track 11* are designed to help with increasing these skills.

### **Probing in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 12;* *No DVD Track*)

**Probing** is investigating a client's skills in producing nontargeted responses on the basis of generalization. For example, after 4 weeks of working on word initial /t/ using *take, tie, tell, top, and tide* as **exemplars**, or example words for training /t/, the SLP probes /t/ to determine production on nontargeted or generalized words such as *tax, toe, tame, tip, and toad*. Probes may be conducted in all areas of therapy (voice, fluency, language, etc.) and are used to (a) determine whether the targeted skills may be advanced to higher levels and (b) make dismissal decisions. Hegde and Davis (2005) noted "you cannot decide that a behavior (e.g., the /s/, the present progressive, oral resonance, normal voice quality, naming) is tentatively trained because the responses on selected training words or phrases have been correct. Instead, you conduct a probe" (p. 315). Hedge (2001) provided steps for conducting both *pure probes* and *intermixed probes*, whereby only nontargeted words (pure probe) versus both nontargeted and targeted words are used for the probe (intermixed). Productions of targets for a probe do not count toward the client's productions of targets for that session; the probe is strictly a planning tool.

Modified probes for articulation indicate if nontargeted **homorganic phonemes**, phonemes made in the same anatomical area, but different by one feature, often the manner of production, are positively impacted by work on the target. For example, /s/ and /t/ are homorganic phonemes; they are made in the same anatomical place, but in a different manner. Often correction of one of these phonemes appears to positively impact correct production of the other. A probe addressing the nontargeted phoneme in this case may be helpful, particularly if the nontargeted phoneme is being considered for targeting in the near future.

SLPs are encouraged to become comfortable using probes to determine the client's level of skills for a target not yet addressed during the treatment period. Activities associated with *Therapeutic-Specific Workshop: Form 12* are designed to help with increasing these skills. (*There is no DVD accompaniment for this skill.*)

### **Behavioral Management in the Therapeutic Process** (*Therapeutic-Specific Workshop: Form 13; No DVD Track*)

SLP students often possess both the interpersonal communication and the therapeutic-specific skills needed to conduct effective speech-language therapy. However, many beginning-level SLPs experience difficulty in properly managing client behavior, thereby negating therapeutic effectiveness. It is extremely difficult, or impossible, to conduct effective therapy when clients are noncompliant, defensive, antagonistic, or are otherwise behaving in ways that are not conducive to participation in speech-language therapy. **Behavior management** is a system that the SLP uses to establish and maintain appropriate client behavior for therapeutic intervention. Miller (2002) discussed student behavior and behavior management programs and noted the following.

Most students display appropriate behavior when academic expectations are clear; lessons are engaging and motivating with clear rationales; lessons are challenging, but within the students' capability; lessons are delivered effectively; and a positive, supportive atmosphere is evident. It is possible, however, for students to display behavioral difficulties in spite of the presence of strong academic and social programs. Thus, teachers must organize behavioral programs to address these difficulties should they emerge. (p. 86)

Several concepts presented in Miller's (2002) quote are significant for SLPs. To properly manage clients' behavior, it is important for SLPs to take the following steps.

1. Communicate clear clinical expectations.
2. Conduct therapy sessions that are engaging and motivating with clear rationales.
3. Establish clinical objectives that are challenging, but within the client's capabilities.
4. Deliver lessons or activities of the session effectively.
5. Create a positive, supportive atmosphere within the therapeutic setting.

However, when further behavioral management is needed within the therapeutic setting, SLPs should consider the establishment of either low-intensity or medium-intensity techniques for managing student behavior (Miller, 2002).

### ***Low-Intensity Behavioral Management Techniques***

***Low-intensity behavioral management techniques*** include *establishing class rules, using specific praise, and ignoring behaviors* (Miller, 2002). Several researchers discussed the concept of establishing rules for classroom behavior (Kerr & Nelson, 2002; Miller, 2002). Miller (2002) indicated that *class rules* (a) communicate teacher expectations, (b) communicate a sense of fairness, (c) help build a climate of trust, and (d) help teachers determine the type of praise statements to use with students (Miller, 2002). For example, if the class rule is “We respect our neighbor by listening when he or she is talking,” teachers are able to easily link praise with the rule. The SLP might announce, “Kenitra, I like the way you are following our class rule on respecting others by listening to Lydia when she talks.” Because of the importance of class rules in managing behavior, Miller (2002) advised that “before deciding upon class rules, teachers must think about whether or not they will be comfortable using and enforcing the rules with every student in their class” (p. 87). SLPs are encouraged to think through parameters of establishing class rules in a similar manner. Miller (2002) noted that regardless of the constellation of rules established in a classroom, general guidelines for developing rules are widely accepted. These rules include (a) limiting the number of rules to no more than 3 to 4, (b) stating the rules in positive language, (c) aligning class rules with activity goals, and (d) posting class rules in a prominent location.

SLPs are encouraged to use *specific praise* as a part of behavioral management techniques. ***Specific praise*** refers to verbalizing to the student the specific aspect of behavior the student is performing well. For example, when Tim puts away his materials, the teacher might use specific praise by telling Tim, “You did a wonderful job of putting away your materials.”

Miller (2002) indicated that occasionally students will continue an undesirable behavior because of the attention it attracts. In these instances, ***ignoring undesirable behaviors***, a behavior management skill that is *planned* and used to negate a disruptive behavior each time it occurs, is advised. However, ignoring behaviors should not be used when someone’s safety is jeopardized. Once the SLP determines that ignoring the behavior is the appropriate management technique, the technique should be applied consistently because (a) the undesirable behavior is likely to increase as the client works harder to get the teacher’s attention; and (b) if the planned ignoring is not consistently applied, the client learns that escalating the undesirable behavior results in the client getting what he or she wants.

Based on Miller’s (2002) work, the use of the classroom rules, specific praise, and ignoring undesirable behaviors are powerful behavioral management techniques when used together as the SLP’s behavioral management program. SLPs are encouraged to practice these low-intensity behavioral management techniques and to employ them as

the first rules of behavioral management. However, when undesirable behaviors persist, Miller (2002) recommended escalating behavioral management techniques to include *medium-intensity behavioral management techniques*.

### **Medium-Intensity Behavioral Management Techniques**

**Medium-intensity behavioral management techniques** include *contingency contracting*, *token economy systems*, and *self-management strategies*. These strategies, by their natures, represent increased intensity for application requirements on the part of the SLP in addressing behavioral difficulties seen in clients. For example, they require more time and effort to implement, but Miller (2002) reported these behavioral management techniques to be reasonable for diverse classroom settings.

**Contingency contracting** is based on an agreement (verbal or written) between the client and the SLP regarding expected client behavior within the therapeutic setting. The concept of contingency contracting was first introduced by David Premack in 1959. Premack encouraged participation in nonpreferred activities by using preferred activities as a reinforcer. Premack's (1959) work became known as the *Premack Principle*, also known as *Grandma's Law* because grandmothers typically tell children things such as "You can have dessert as soon as you finish your vegetables." The Premack Principle, or *Grandma's Law*, gradually became known as contingency contracting (Homme, 1970). The general procedure for contingency contracting is deceptively simple: the clinician arranges the conditions so that the client gets to do something he or she wants to do following something the SLP wants the client to do (Homme, 1970). Miller (2002) noted that contingency contracts, written documents developed by the SLP, should include the following:

- a statement related to the desired student(s) behavior
- terms or conditions of the agreement (e.g., time frame for demonstrating the desired behavior, amount of behavior required, amount of reinforcers, when the reinforcer will be available);
- a statement related to the activity or reinforcer that will be rewarded contingent on fulfilling the conditions of the contract;
- signatures of the student(s) and teacher (pp. 90–91).

Smith, Polloway, Patton, and Dowdy (1998) found that to be most effective, contracts should (a) make some attempt to reward imperfect *approximations* of the desired behavior; (b) provide frequent rewards; (c) reward accomplishments rather than obedience; and (d) be fair, clear, and positive.

Smith et al. (1998) also discussed three types of *group contingency contracts*, contingencies for groups, and reported these to be excellent alternatives for managing behavior of special needs children in regular classroom placement.

- **Dependent contingencies:** All group members share in the reinforcement if one individual achieves a goal (e.g., all children participate in a video party because

one child achieved 100% correct production of a goal 2 consecutive days in therapy).

- **Interdependent contingencies:** All group members are reinforced if all collectively (or all individually) achieve the stated goal (e.g., all children participate in a video party because all children achieved 70% correct production of their phonemes by the end of the week).
- **Independent contingencies:** Individuals within the group are reinforced for individual achievements toward a goal (e.g., Anthony and Joe received passes to the book room because they each achieved their goals for the week).

Smith et al. (1998) reported that independent contingencies are most often used in classrooms, but that each has specific value; they noted that the “benefit of group contingencies (or peer-mediated strategies, as they are often called) include the involvement of peers, the ability of teachers to enhance motivation, and increased efficiency for the teacher” (p. 370).

*Tokens* were discussed briefly in the positive reinforcers section of this chapter and were described as items that have little inherent value (chips, tickets, stars, marks on a tally sheet, etc.), but which may be given as a temporary reinforcer to be later exchanged for something that the client does value. Tokens relate directly to the use of *token economy systems* of behavior management, another medium-intensity behavioral management technique often used by SLPs. **Token economy** is a system of behavioral management involving nonsocial conditioned reinforcers (e.g., chips, points, paper clips, etc.) earned for exhibiting desired academic or social behaviors that may be exchanged for back-up reinforcers of predetermined token value (Kerr & Nelson, 2002). Token economy systems have been proven effective for managing student behavior (Miller, 2002). Kerr and Nelson (2002) indicated that the essential ingredients of a token economy system are (a) the tokens (items for which client will work), (b) back-up reinforcers (tangibles or activities) for which tokens may be exchanged, (c) contingencies specifying the conditions under which tokens may be obtained or lost, and (d) the exchange rate of tokens for back-up reinforcers. The SLP employing a token economy system must decide these parameters. Miller (2002) suggested considering the following steps before implementing a token economy system.

*Step 1:* Determine which behaviors will result in earning tokens (may want to focus on three or fewer behaviors per student)

*Step 2:* Decide what will be used as tokens taking into consideration durability, expense, safety, attractiveness, and ease of dispensing (e.g., plastic chips, play money, points on a point card). Plastic chips are usually colorful, durable, and reinforcing. Play money provides opportunities to combine behavior management with teaching money skills. Point cards are easy to manage and less apt to result in ownership debates since the student’s name is written on the card.

*Step 3:* Identify reinforcers that students will be motivated to earn and determine how many tokens each reinforcer will cost (e.g., 100 tokens = 5 minutes of computer time)

or 1 baseball card or 1 pencil sharpener; 200 tokens = 10 minutes to play a game or 1 comic book or 2 arcade tokens to use after school; 300 tokens = pass to media center or 1 baseball cap or 1 poster). More valuable items cost more tokens. Thus, students have the opportunity to practice deferred gratification and the value of saving.

*Step 4:* Decide whether to display the reinforcers in a classroom “store” (e.g., special bookcase or cabinet) or whether to list the items on a poster board. In either case, the number of required tokens should be indicated so students know what they have to earn. The store and/or poster will serve as a visual reminder to demonstrate the behaviors that result in earning tokens.

*Step 5:* Decide when students will be permitted to trade in earned tokens (e.g., as soon as they have enough or at designated times throughout the day or at the end of the day/class period).

*Step 6:* Establish rules for the token economy system (e.g., students should not be given tokens if they ask for them; students should not be allowed to take tokens from other students or give tokens to other students).

*Step 7:* Explain the token system and accompanying rules to students to ensure they understand what behaviors will result in earning tokens, how many are needed for the various reinforcers, and when the trading may occur (pp. 94–95).

It is important to remember that when using a token economy system, the emphasis is on positive student behaviors. Miller (2002) recommended pairing verbal praise with the use of tokens to help with the transition into the student's acceptance of positive social reinforcers. Similarly, when the student misbehaves, make sure the verbal pairing to redirect the student is appropriate. For example, “As soon as you sit quietly, tokens can be earned.” Miller (2002) reported that verbal cues, paired with tokens tend to redirect inappropriate behaviors while still maintaining a positive classroom atmosphere, particularly when the verbal reinforcer is used at an increasing volume over time and the token ratios become greater and greater.

Both contingency contracting and token economy systems are teacher-directed medium-intensity behavior management systems. *Self-management strategies* also qualify as a medium-intensity behavior management system. However, **self-management strategies** are behavioral techniques that are student-directed and typically are instituted once teacher-directed behavior management strategies are demonstrated consistently. These include *self-monitoring*, *self-evaluation*, and *self-reinforcement* techniques. **Self-monitoring** requires the student to record the frequency of a particular behavior, usually on a card or other form. **Self-evaluation** requires students to compare their behavior to a preset standard to determine whether the criterion is being accomplished. **Self-reinforcement** involves having students reward or reinforce themselves following appropriate behavior (Miller, 2002). It is possible to use all three self-management techniques concurrently for a given student, but teacher support and suggestions for students using self-management may be needed, particularly when students are determining rewards and reinforcers.

### ***High-Intensity Behavioral Management Techniques***

**High-intensity behavioral management techniques**, which are highly structured behavioral programs and classrooms involving multiple individuals, are available to the SLP. Typically, when low- and medium-intensity techniques are not successful for behavioral management, the SLP works with several other professions (teachers, parents, behavioral specialists, etc.) to help the client facilitate positive behavioral changes (Miller, 2002). Often the behavioral changes needed, once a child is placed on high-intensity behavioral techniques, require the student's enrollment in special programs, and occasionally, special classes for children with behavioral disorders. It is likely that children who require high-intensity behavioral techniques exhibit behavioral difficulties across several areas of functioning including classroom, home, and social settings, in addition to behavioral difficulties exhibited in speech-language therapy.

Behavioral management techniques and skills are very important to the therapeutic process. Often clinicians with otherwise adequate clinical skills are rendered ineffective because of inability to manage client behavior. It, therefore, is important that SLPs understand the rudiments of choosing and developing an appropriate behavior management plan for clients experiencing behavioral difficulty in therapy. Activities associated with *Therapeutic-Specific Workshop: Form 13* are designed to help with increasing these skills.

### **Trouble-Shooting in the Therapeutic Process** *(Therapeutic-Specific Workshop: Form 14;* *No DVD Track)*

**Trouble-shooting** refers to the concept of constant *mental scanning*, whereby the SLP constantly looks for indicators of difficulty when therapy is not proceeding well. Often, the SLP is unable to make adequate professional judgments regarding the level of acceptability of various aspects of therapy as the session proceeds. Most often, this inability to trouble-shoot occurs across two broad areas: *clinician-focused difficulties* or *client-focused difficulties*. Regardless of the cause of difficulties in therapy, the result is the same: lack of appropriate client progress in therapy.

As a general rule, SLPs are encouraged to assess their own behaviors in therapy as a beginning point of trouble-shooting. **Clinician-focused difficulties** are difficulties the SLP experiences in therapy that result in ineffective therapy and lack of client progress. Difficulty in therapy for the SLP often takes the form of (a) ineffective interpersonal communication skills, (b) ineffective therapeutic-specific skills, and (c) lack of knowledge and skills in specific intervention programs needed to address client goals/objectives. SLPs must constantly scan to determine if difficulty in therapy is related to insufficient command of one or more clinical skills during the therapeutic process. Trouble-shooting, for example, helps the SLP recognize a problem with fluency in therapy caused by poor preparation and organization or helps the SLP recognize difficulties with modeling or cueing. **Scanning** refers to asking questions, the right questions, about clinical skills and

performances. Examples of questions that help the SLP determine if difficulty in therapy is clinician-focused follow.

1. Are my personal and interpersonal communication skills appropriate for working with this client?
2. Am I establishing the correct goals and objectives for this client?
3. Are those goals/objectives established at the correct levels? For example, are the goals too high, or too low, for this client's current levels of functioning?
4. Do I properly communicate goals, objectives, and expectations to this client?
5. Do I exhibit the proper level of enthusiasm for encouraging progress for this client?
6. Do I understand the specific components of the therapy program I am implementing?
7. Am I properly implementing each segment of the therapy program for my client (stuttering program, voice program, language program, articulation program, swallowing program, etc.)?
8. Am I accurately keeping data regarding the performance of my client?
9. Am I making the correct analysis of client performances on a consistent basis?
10. Am I making the correct plans and modifications based on client performances in therapy?

A second set of questions must also be addressed when therapy is not proceeding as well as hoped. These questions relate to client-focused difficulties. **Client-focused difficulties** are defined as difficulties that arise in therapy as a result of client behaviors that negatively impact progress in therapy. For example, the client may not be properly motivated for putting forth adequate effort in therapy, thus causing lack of sufficient progress. Typically, client-focused behaviors generate a shorter list because there are some client behaviors for which the SLP must ultimately take responsibility. For example, if a client lacks proper motivation for therapy, of course, some of that difficulty rests with the client. However, as the clinician, the person ultimately responsible for client progress, the lack of client motivation must be shared by the clinician. Examples of questions the SLP should ask when attempting to determine client-focused difficulties in therapy follow.

1. Does the client exhibit adequate motivation and enthusiasm for success in therapy?
2. Are there any hidden, inherent reasons for the client to negate or sabotage therapy? For example, does the client like the attention associated with therapy, thereby rendering the prospect of improved communication or swallowing skills unattractive?
3. Does the client have proper family or other support for therapy progress?

Regardless of whether results of trouble-shooting yield clinician-focused difficulty or client-focused difficulty, the SLP must develop skills in trouble-shooting and take appropriate corrective actions to ensure adequate client progress in therapy.

Activities associated with *Therapeutic-Specific Workshop: Form 14* are designed to help with increasing these skills. (*There is no DVD accompaniment for this skill.*)

## Summary

The 28 therapeutic-specific skills presented in this chapter are not all-inclusive of the skills needed by SLPs for providing effective speech-language therapy. However, it is believed that successful implementation of these 28 skills has a significant positive impact on therapy. SLPs implementing these skills should refer often to the 28 skills highlighted in this chapter through use of text, the 14 accompanying TSW Forms, and the 9 DVD vignettes.

### Learning Tool

1. Work through the 28 skills in this chapter at a moderate pace using the 14 TSW Forms and the DVD accompaniments to help process information related to the 28 skills.
2. Task-analyze skills (segment skills into component parts) and practice the parts as needed. Put the parts together to develop comfort with the entire skill sequence.
3. Use peers to serve as "clients" as needed for your practices.

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