Introduction

Easy Does It for Articulation: A Phonological Approach is a two-book set for use with children with severe and profound phonological processing disorders. It provides therapy materials and home activities to support the speech-language pathologist (SLP) in phonology therapy. Barbara Hodson and Elaine Paden's approach to the remediation of phonological processing disorders is used as a basis for target selection and the progression of targets. (Refer to *Targeting Intelligible Speech* by Barbara Williams Hodson and Elaine Pagel Paden for a complete explanation of their remediation approach.)

Hodson and Paden stress the importance of teaching phonological processes in a "facilitative phonetic environment." They report that target sound patterns will be considerably easier to elicit and faster to establish if the phonetic context is carefully selected. The phonetic contexts should not contain more than one error pattern (e.g., *rock* has both liquid /r/ and velar /k/), consonants that lead to assimilation of error sounds (e.g., the /t/ at the end of *coat* will influence the initial /k/ sound), or interfering vowels (e.g., the /u/ in *room* will impact lip rounding on /r/).

Hodson and Paden also stress the importance of success in therapy; children should experience a high degree of success in therapy to establish an "accurate kinesthetic image of the sound." The difficulty SLPs have when working with children with severe and profound phonological processing disorders is finding words the children can successfully produce. This is particularly true in the early cycles of phonology therapy. So many processes are deviant in the speech of these children that it is extremely difficult to compile an appropriate repertoire of words and pictures to use in therapy and at home for practice.

The advantage of *Easy Does It for Articulation: A Phonological Approach* is in its careful selection of words to use with children who are highly unintelligible. The phonetic context of the target phonological process does not contain other patterns that are typically deviant in the speech of these children. In addition, the vocabulary is age-appropriate and the pictures are clear and engaging. Given the limited number of words available, the vowel context is controlled as much as possible.

Oral-motor activities are included to strengthen speech musculature. In my experience in working with children who are unintelligible, oral-motor activities play an important part in remediation. I see a lot of children with oral hypersensitivity, weak tongues, poor lip closure, excessive jaw movements, etc. A few simple oral-motor activities can strengthen the speech musculature and give the child a much better awareness of appropriate tongue placement.

The purpose of this program is not to teach the SLP all there is to know about remediation of phonological processing disorders. *Easy Does It for Articulation: A Phonological Approach* provides easy and effective techniques and materials for use in therapy and for sending home with students for additional practice. It is the SLP's role to assess the child, determine appropriate targets and the progression of targets, develop effective production techniques, and make individual adjustments in the home program.

Description of Phonological Processes

Activities and materials for 12 phonological processes are provided in *Easy Does It for Articulation: A Phonological Approach.* Seven are primary or early-developing phonological patterns and five are secondary or "cleanup" phonological patterns. The order of the primary patterns is the typical order of presentation for most children with severe or profound phonological processing disorders. Individual differences may occur based on a child's unique error patterns and stimulability for sounds. The secondary patterns are addressed only if specific errors persist after establishing the primary patterns. In general, the secondary patterns emerge without direct intervention because of the child's improved listening and self-monitoring skills. This is particularly true with the preschool population.

Primary phonological patterns:

- syllableness
- consonant singletons
- velars
- alveolars
- stridents and two-consonant sequences
- liquid /l/
- liquid /r/

Secondary phonological patterns:

- voicing
- vowels
- singleton stridents
- glide sequences
- three-consonant sequences

Syllableness: Syllableness is the ability to produce the correct number of syllables in a multi-syllabic word. Children who are unintelligible often reduce the number of syllables in a word, which has a significant negative impact on their effectiveness as communicators. Syllableness is addressed in two- and three-syllable words in which all of the syllables have equal stress. It is easier for a child to pay attention to all of the syllables in a word when they are of equal stress. In words with unstressed syllables, the child tends to delete the unstressed or weak syllable.

Consonant Singletons: The structure of the word (e.g., CV, VC, CVC, VCV), not the specific consonant, is the target pattern for consonant singletons. The early-developing consonants (e.g., /m, n, p, b, t, d, w/, and /h/) are used to facilitate word structure. Words with the alveolar sounds /t/ and /d/ should be discarded if the child exhibits backing (i.e., substitutes /k/ and /g/ for /t/ and /d/).

Velars: Velars are the back sounds /k/ and /g/. Most children who are unintelligible cannot produce velars. When velars are not stimulable, they may need to be delayed until

the second or third cycle of the child's program. The glottal fricative /h/ is presented first in the therapy activities. It is often easier to elicit a /h/ sound than /k/ or /g/. The /h/ sound gives the child a feel for producing sounds in the back of his mouth.

Alveolars: Alveolars are the tongue tip sounds /t/ and /d/. Alveolars are rarely targeted in phonology therapy. Most unintelligible children can produce /t/ and /d/ sounds. When absent, alveolars should be targeted in cycle one.

Stridents and Two-Consonant Sequences: Stridents are noisy sounds in which air strikes the back of the teeth. Consonant sequences are two or more consonants blended together in a word. Children who are unintelligible always have difficulty with both patterns. The most efficient way to improve intelligibility is to address stridents and consonant sequences simultaneously. The voiceless strident /s/ is practiced in two-consonant sequences (e.g., /ts, sp/, and /sn/). By cycles three or four, you can incorporate the phrase "It's a _____" with the target words in practice activities so the child gets the feel of using two stridents in a sentence. This will facilitate the generalization of stridency to the singletons /f, s, ch/, and /sh/.

Liquid /l/: A liquid is a consonant in which the articulators make only partial, frictionless contact in the mouth. Liquid /l/ may be very difficult to elicit in the early cycles. Nonetheless, it is important to target liquid /l/ early so it does not become a lingering problem at the end of the child's program.

Liquid /r/: As with liquid /l/, liquid /r/ should be targeted in cycle one. Do not expect a perfect /r/ initially. The most important goal is to suppress the gliding process in the early cycles.

Voicing: Voicing errors occur on the voiced/voiceless cognates /b-p/, /d-t/, /v-f/, /z-s/, and /j-ch/. Voicing errors generally take care of themselves as the child's phonological skills improve. Some children may have lingering problems with voicing after establishing the primary patterns. Errors typically occur on the voiceless cognate (e.g., the child says "bop" for "pop"). Voicing is addressed in minimal pair words.

Vowels: As with voicing, vowels seldom need to be targeted in phonology therapy. Some children, however, persist in vowel substitutions and distortions. Vowel patterns are addressed in word groups that vary only in the long or short vowel.

Singleton Stridents: Strident singletons are the noisy sounds /f, s, ch/, and /sh/. Because stridents are addressed with consonant sequences in the primary patterns, stridency often generalizes from /s/clusters to the singletons. Occasionally, strident singletons may need additional practice. The glide /y/ is presented in level five. Development of the /y/ sound facilitates the production of the palatal stridents /ch/ and /sh/.

Glide Sequences: Glides are the loosely articulated sounds /w/ and /y/. Glides are addressed in two-consonant sequences. Glide sequences present lingering difficulties for some children.

Three-Consonant Sequences: The three-consonant sequences addressed are /str, skr, spr, spl/, and /skw/. Some children need to practice three-consonant sequences in the final cycles of their programs.

Description of the Program

Easy Does It for Articulation: A Phonological Approach provides resources to use in therapy and send with your student for home practice. The program consists of two books:

Therapy Manual
- listening activity
- learning activity
- practice activity
- home activity

These activities are provided for each primary and secondary phonological process.

Materials Book
- auditory bombardment pictures
- flash cards for primary phonological processes
- flash cards for secondary phonological processes
- family letter
- hand signals
- description of hand signals
- response forms
- speech-language therapy home practice notes

Listening Activity: The listening activity is based on Hodson and Paden's auditory bombardment component of phonology therapy. Auditory bombardment is used to help the child focus on the target sound patterns in words and sentences. It is best to provide auditory bombardment with low amplification. Hodson and Paden suggest using a tape recorder and earphones. Operate the tape recorder in the record mode with or without a cassette tape in place. I use earphones and a microphone attached to an amplifier with a listening station so several children can listen at the same time. Another option is a personal amplified listening device. Read the list of words and sentences loaded with the targeted sound pattern to your student while he is engaged in a quiet activity. The words and sentences are for listening only and are not to be repeated by the child. A variety of quiet activities are suggested. A coloring picture is provided in the Materials Book (one for each process) on pages 13-24.

Learning Activity: Oral-motor exercises, cueing strategies, and placement techniques are provided for the SLP to use in teaching the sound pattern.

Practice Activity: Four play activities using words on the flash cards are suggested to stabilize the sound pattern. In addition, two games are suggested to make practice more fun. One is a simple made-up game using common materials, and the other is a purchased game for young children that highlights the targeted sound pattern.

Home Activity: A successful program requires parental involvement. Flash cards and Speech-Language Therapy Home Practice Notes should be sent home with your student once the phonological pattern is stimulable in therapy.

Auditory Bombardment Pictures: Twelve coloring pages (one for each process) are provided for your students to color during the listening activity portion of the program. (See pages 13-24.)

Flash Cards: Flash cards are provided in the Materials Book on pages 25-97 for each level of the primary and secondary phonological processes. The words selected for the flash cards have carefully controlled contexts that are designed to facilitate successful sound production. (Because of the limited number of words available, the contexts for /sm/ include other difficult phonemes.) The units have between 2 and 12 levels, depending on the complexity of the phonological pattern.

Family Letter: A family letter is provided in the Materials Book on page 98 to give to parents at the beginning of phonology therapy. It discusses the basic principles of phonology therapy and the importance of the family's role in the remediation process.

Hand Signals/Labels: Pictures of hand signals along with fun labels are provided in the Materials Book on pages 99-103 for the phonological processes and phonemes addressed. Hand signals and labels can be very effective production cues. A brief description of how to form these hand signals is included in the Materials Book on pages 104-106.

Response Forms: Response forms are provided in the Materials Book for the SLP to record the accuracy of the student's responses during the practice activity. Response Form A, page 107, is for the primary phonological processes. Response Form B, page 108, is for the secondary phonological processes.

Speech-Language Home Practice Notes: Home practice notes are found in the Materials Book on pages 109-145**.** Parents can do many fun activities at home that will enhance their children's success in phonology therapy. In this section, word games, trips to the zoo, crafts, etc., are suggested for carryover activities. A list of books containing each target sound pattern is also provided. The books are good children's literature readily available at bookstores and libraries.

How to Use the Program

At the beginning of your student's phonology therapy program, schedule a conference with the parent to discuss test results and the approach you'll follow. Do not expect the parent to totally grasp the phonological processes approach as learning will occur over time and with exposure. Give the parent a copy of the family letter (Materials Book, page 98) which describes the family's role in the remediation process. Many of the practice activities involve food. Be sure to ask the parent about any food allergies.

After successfully eliciting a sound pattern in therapy, give your student the accompanying flash cards and Speech-Language Therapy Home Practice Note to take home. Although the words on the flash cards have been carefully selected to create a facilitative phonetic environment, some may not be stimulable in therapy. Cross out the words/pictures that are inappropriate for a given child. Do not expect a parent to practice a word you cannot elicit in therapy. The goal of home activities is to stabilize sounds in successful practice experiences.

A given child may not necessarily start at level one of a phonological process or need all of the levels in the unit. The selection and progression of phonological processes is based on a child's error patterns and stimulablility.

Because *Easy Does It for Articulation: A Phonological Approach* is very straightforward and avoids technical terms, it can be a useful tool for a speech-language pathology assistant (SLPA). The SLP would be responsible for assessment, determining appropriate targets, and monitoring the performance of both the SLPA and student.

Conclusion

With the help of parents, I have discharged preschool children who initially were unintelligible in 12-18 months. I am a strong believer in Hodson and Paden's approach to the remediation of phonological processing disorders. In the past, these children required therapy for years and years. An efficient and effective phonology therapy program, however, cannot be done without the help of parents. Parents will do their part if given the education and tools. I hope you find *Easy Does It for Articulation: A Phonological Approach* beneficial to your program.

Martha