

### Treatment Decisions that interact with Treatment Approaches

- How many targets will be worked on in one session? How long will I work on a target before I move on to another?
- How frequently will treatment sessions be held and how long will each session last?
- Will instruction be individual or group? Will it be inclusion, pull-out, or a combination?
- How much structure will be effective with this client? Is drill and practice or play the best approach?

### General Treatment Phases

- **Establishment**
  - behavior is elicited
  - behavior is stabilized
- **Generalization**
  - carryover of the behavior on several levels
  - positional, contextual, linguistic unit, sound and feature, situational
- **Maintenance**
  - stabilization and retention of behavior
  - frequency and intensity of treatment reduced

### Speech Perception Training

- historically, “ear training” or “speech sound discrimination training”
- assumption is that perception is a prerequisite
- controversial, not universally accepted
  - PRO: speech is typically learned auditorily
  - CON: production training has built in perception aspect
  - CON: metalinguistic nature of tasks
  - CON: not all clients have perceptual deficits
- switch to “contrast training” - focus is on the feature (“stop” sound versus “go” sound)

### Sound Production Training

- Level of production for establishment?
- if not in repertoire, then begin in isolation
  - syllable may be basic unit of motor production (McDonald)
  - words are basic unit of meaning (phonemic approach)
  - real or nonsense?

### Decision Making - When to use a phonetic approach?

- Phonetic approach is recommended for phonetic disorder (clients with lisps or residual /r/ problems)
- Use the phonetic approach to establish articulation, if the sound is not in inventory
- Consider the phonetic approach if the child does NOT show evidence of phonemic collapse
- REMEMBER that phonetic versus phonemic is not an all or nothing decision

### Motor Learning Principles (Ruscello)

- **Cognitive analysis** - a mental planning step is often important when learning to execute a new motor movement
- **Practice** - key variable in the mastery of any skilled motor behavior
- **Stages in motor skill development** - initially movements may be sluggish, later automatic
- **Feedback** - internal and external feedback can shape movement

### Phonetic Production Methods

- **imitation** - start here, if able to imitate, then move to stabilization
- **contextual utilization** - look for contexts in which the child can produce the target, production training starts with “key” words
- **phonetic placement** - instruct client in the placement and movements of the articulators, visual and tactile cues provided
- **successive approximation (sound modification)** - shape the correct sound production by identifying a related movement and then moving in steps toward the target

### Traditional Motor Approach (Van Riper)

- **Speech Correction: Principles and Methods** (Van Riper, 1939), hence the “Van Riper Method”
- Note that at that time the typical client was school-age or adult
- **Hallmark** is the ear training that is considered a prerequisite
- **Sequenced activities**, with flexibility, for stabilizing and generalizing correct production from sound to syllable to word to sentence levels

### Sensory-Perceptual or Ear Training

- Client does NOT produce the sound in this phase
- **GOAL:** Client will develop an auditory model or internal standard for the target phoneme
- **Identification** - recognize target in isolation given foils
- **Isolation** - indicate when sound is heard in words and different positions of words
- **Stimulation** - client is bombarded by target and variations (loudness, duration, speakers)
- **Discrimination** - error detection of clinician’s speech, foundation for later self-monitoring, child’s error production is used, second part includes error correction

### Production Training

- **Isolation** - easily learned at this level, goal to establish a consistently correct production, can skip
- **Nonsense Syllables** - goal is consistent production in variety of syllables, sequence = CV, VC, VCV, CVC, use facilitating vowel contexts
- **Words** - start with monosyllabic initial, then final, then 2-syllable medial, adding clusters and more complex word forms
- **Phrases/Sentences** - often still imitative or elicited, use carrier phrases/sentences
- **Conversation** - initially structured, with prompts, monitoring, re-introduce sensory-perceptual training

### Multiple Phoneme Approach (McCabe & Bradley, 1975)

- Characterized by horizontal goal attack strategy, multiple sounds targeted simultaneously
- Developed for use with clients with severe phonological disorders associated with cleft palate
- Views articulation errors from a motor perspective
- Modified for younger children by using pictures rather than graphemes for each of the targeted phonemes

### Multiple Phoneme Approach (McCabe & Bradley, 1975)

- **Phase I - Establishment:**
  - correct production in isolation given the grapheme
  - some phonemes may “hold” at this phase while others move to next phase
- **Phase II - Transfer:**
  - probe imitative words to determine syllable vs. word level starting point
  - word (all positions) to phrase/sentence to reading/story-telling to conversation
- **Phase III - Maintenance:**
  - whole word accuracy in various speaking situations

**Programmed Conditioning for Articulation**

- aka Monterey Articulation Program (Baker & Ryan, 1971)
- Highly structured program based upon behavioral therapy principles
  - speech sounds are learned motor behaviors
- Consists of an Establishment phase of 18 steps (with 91 branching steps), a Transfer phase of 15 steps, and a Maintenance phase of 5 steps
- Criterion for advancing is 10 correct responses in a row

**Sensory-Motor Approach (McDonald, 1964)**

- Differs from traditional approach in 2 ways:
  - perceptual training is not a prerequisite
  - training does not begin at the isolation level
- Practice begins with sounds that are NOT in error
  - practice bisyllables and trisyllables with similar vowels (titi, titi, lalala, etc.)
  - GOAL: awareness of kinesthetic and auditory association
- Error sounds are introduced in contexts where they are NOT in error, then systematically moved to more varied contexts