

Overview

- ✓ Provide a rationale for correcting /r/.
- ✓ Identify the four essential elements to success in /r/ treatment.
- ✓ Establish an effective /r/ intervention.
- ✓ Provide specific strategies leading to dismissal.

IMPACT OF /r/ RUBRIC POSSIBLE ADVERSE EFFECTS ON A STUDENT'S EDUCATION

Domains	Adverse Effect on Education
Academics and Learning	<ul style="list-style-type: none">✓ Decreased participation in classroom lectures.✓ Difficulties giving oral presentations.✓ Trouble reading aloud.✓ Hesitant to participate in cooperative learning group projects.✓ Reluctant to ask teacher questions for clarification so work often lacks details or is incomplete.✓ Courses and career paths may be selected that require the least amount of verbal communication skills.
Social-Emotional Functioning	<ul style="list-style-type: none">✓ Reluctance to speak to adults in authority.✓ Decreased ability to negotiate teasing and bullying.
Independent Functioning	<ul style="list-style-type: none">✓ Decreased ability to express opinions and ideas in a classroom discussion.✓ Call attention to itself and distracts from the spoken message.

What is /r/?

Traditional:

Initial	[run]	[red]	[reply]
Medial	[carry]	[barn]	[iris]
Final	[mother]	[gather]	[sister]
Blends	[green]	[crane]	[trip]

Sensory Motor:

Intervocalic /r/: arrow
Postvocalic /r/: tear
Unstressed vocalic /r/: tiger
Stressed vocalic /r/: girl
Consonant glide single /r/: room
Consonant glide blend /r/: drain

Phonetic:

/ar/, /air/, /ear/, /ire/, /or/, /er/, /rl/, and prevocalic /r/
(With combinations of initial, medial, and final word positions, there are 21
different types of /r/ in total)

What the Research Says



Client/Patient Values

- ✓ /r/ mis-articulation may not create initial concern in parents or child
- ✓ there is increased awareness as children reach 4th/5th grade and negative peer reactions in high school
- ✓ there may be specific events related to teasing, bullying, school participation

Clinical Expertise

- ✓ older children respond more quickly to intervention (3rd grade)
- ✓ postponing intervention generally results in fewer sessions
- ✓ girls seem to require more sessions (less social reaction)
- ✓ children with significant cognitive/intellectual deficits have a poor prognosis

Current Best Evidence

- ✓ /r/ misarticulation is a result of phonetic, motor, and sensory factors
- ✓ correct /r/ production improves correct /r/ discrimination
- ✓ /w/-/r/ is a result of a broad auditory model and not necessarily a “process deficit”
- ✓ perception of correct /r/ requires training for SLPs
- ✓ visual feedback supports correct production
- ✓ correct placement supports sensory and motor feedback
- ✓ context of /r/ in a syllable is a significant variable
- ✓ programmed approaches may be more efficacious than eclectic approaches

Stages of Therapy©

- Validation:** **Monitoring**
- profile of skill development over time
 - social and classroom difficulties
 - teacher and parent education
 - awareness of /r/
- Stage One:** **Awareness of a Target**
- consult with parent and teacher on measurable goals
 - determine context in which target is encountered
 - teach “therapy” vocabulary
- Stage Two:** **Establishment of a Target**
- frequency may be more important than duration
 - demonstrate skill performance in context to others
- Stage Three:** **Target Proficiency**
- practice in context
 - provide varied activities
 - establish self-monitoring
- Stage Four:** **Generalization**
- enlist others in monitoring
 - cycle back to earlier skills
 - shift focus to repair of errors
 - review progress over time
- Stage Five:** **Dismissal Preparation**
- set dismissal requirements
 - fade out direct service

Four Essential Elements to Success in /r/ Treatment

- I. Establish /r/-ness
 - a. Eliminate auditory prompts and cues.
 - b. Use physical manipulation to establish placement.
 - c. Establish awareness with specific feedback
- II. Control the context of /r/ transfer
 - a. Stressed vocalic /r/
 - b. /r/ blends+vowel
 - c. Stressed vocalic vowel+/r/
- III. Teach self-monitoring
 - a. Student productions vs clinician judgements
 - b. Focus of motor and sensory self-feedback instead of auditory
- IV. Teach generalization
 - a. Establish early experiences with transfer
 - b. Shift focus of maintenance from clinician to child.

Why /r/ Treatment Fails

1. Reliance on an auditory prompt or ineffective elicitation technique.
 - a. Say /r/.
 - b. /l-/r/; imitate a “growl”; produce vowels while moving tongue (these are examples, there are many more)
2. Non-specific positive and corrective feedback.
 - a. Good job!
 - b. Close.
 - c. Say /r/.
3. Insufficient frequency of responses or failure to stabilize a production.
4. Lack of self-monitoring.
5. Insufficient or non-specific generalization targets.
6. Lack of transfer of behavior modification to child.

/r/ Intervention Components © (1979)

1. Six discrete discriminative stimuli used for specific positive feedback and corrective feedback to establish and maintain /r/-ness.
2. Metacognitive, proprioceptive, physical placement, and visualization prompts and cues to establish and maintain /r/-ness.
3. Sufficient frequency of production to ensure establishment, shaping, and stabilization of /r/-ness.
4. Specific self-monitoring targets.
5. Use of response items (words) selected by the client.
6. Specific generalization targets.
7. Planned preparation for dismissal.

Outline of Intervention Procedures

- Part One: Education and awareness
- Part Two: Establish stressed /er/ with use of physical placement (tongue blade)
[Metacognitive, proprioceptive, feedback]
- Part Three: Establish stressed /er/ in isolation
- Part Four: Transfer of /r/ to controlled /r/ blends+vowels
- Part Five: Self monitoring of controlled /r/ blends
- Part Six: Transfer of /r/ to stressed /er/ (vowel+r)
- Part Seven: Transfer of /r/ to words (pre-selected by child)
- Part Eight: Transfer of /r/ to words in sentences (developed by child)
- Part Nine: Performance of sentences (spontaneous or oral reading) to others
- Part Ten: Controlled performance (spontaneous) to others (with response cost)
- Part Eleven: Review
- Part Twelve: Dismissal preparation (self and other report and phone)

Six Discriminative Stimuli

To reduce and eliminate lip rounding.

- 1 Lips open
- 2 Corners of mouth pulled back

To increase awareness of tongue position.

- 1 Tongue tip up
- 2 Tongue tip moves back

To increase awareness of tongue tension.

- 1 Tongue humped up in the middle
- 2 Tongue pulled back

Making it Fun: A Few Thoughts on Games vs Drill

Games

- Games take valuable time away for speech sound production, especially in group therapy.
- “Play the game.” is a poor substitute for a focus on sound production performance.
- The game is probably more of a diversion than an incentive.

Drill

- Ensures a focus on specific targets.
- Ensures a sufficient number of responses.
- Provides the repetitive productions needed to identify and stabilize the correct production.
- Drill provided in repetitions per set to account for growth and fatigue.
- Performance is easily charted, providing an incentive for continued engagement.

Managing Drill

- Provide unison response of discriminative stimuli (especially in groups.)
- Provide oral reading in which you (first) and then the child omits /r/ sounds from words (its usually a very amusing activity.)
- Include a physical activity (tossing a ball, walking) as a prompt.
- Have child record performance on a chart between sets.
- Change locations (helps in generalization) and positions (stand).

A Rubric for Dismissal from Therapy for /r/

Behavior	Examples
Does the student demonstrate the knowledge to describe the how an /r/ is produced?	⇒ The student can use appropriate vocabulary to describe the articulators and articulatory movements needed to produce /r/.
Does the student demonstrate an ability to advocate for his/her own needs?	⇒ The student can describe a rationale for using /r/. ⇒ The student uses effective interpersonal skills to handle discrimination, teasing, bullying.
Does the student demonstrate an ability to monitor his/her own speech, use self-reflection, and respond appropriately to communication breakdowns?	⇒ The student demonstrates self-correction that requires a minimum of disruption to the normal flow of conversation. (as a corollary: is the effort to maintain /r/ accuracy minimally noticeable). ⇒ The student maintains a sense of humor about his/her challenges.
Does the student desire dismissal and express a degree of satisfaction with his/her current success in therapy?	⇒ The student can relate speech goals in the context of other career and personal goals and desires. ⇒ The student understands how to get additional professional assistance if needed.

Developed by Ehren, T. 2009

Specific Activities for Generalization

1. Plan for child to report (orally and/or in writing) on the /r/ program.
2. Words selected by child (from reading, textbooks, signs, words they have heard, trouble words [pet's name]).
3. Use feedback that specifically reinforces "correcting and correction".
4. Query child about positive comments that have been made by others.
5. See information about "Drill" discussed previously.
6. Involve others in observation of sessions.
7. Plan for the child to report progress to others.
8. Shift from specific positive and corrective feedback to a response cost paradigm.
9. Involve child in selecting specific situations to perform.
10. Include a period of "no direct services."

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