

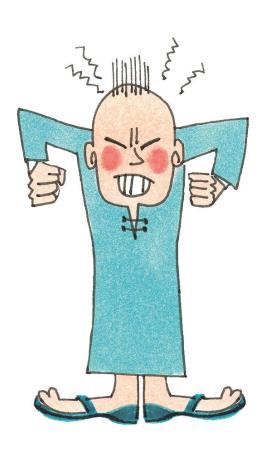
# Got R Problems? A Phonemic Approach to /r/ Remediation.

R Strategies that Work





### Are you feeling frustrated about R? ... You are not alone!





#### **Presentation Overview**

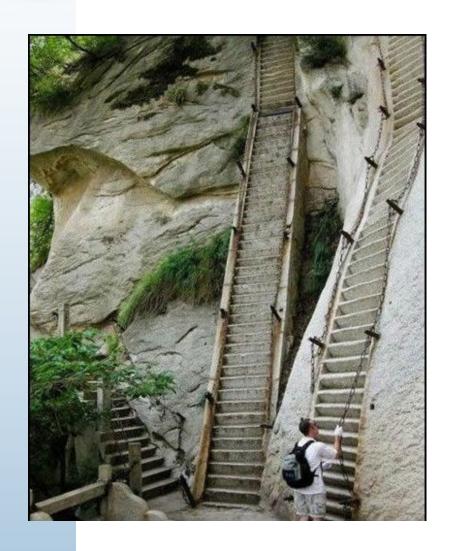
- This presentation is targeted for intermediate level of knowledge
- Research review
- Evaluation procedures
- Specific treatment strategies
- Multi-media: Video and case studies.



# The job of a SLP can be exciting and challenging







Every SLP faces challenges when evaluating & treating children with /r/ misproductions



Traditional strategies of using Initial, Medial and Final /r/ add to the challenges of the SLP





#### The Traditional Approach to /r/

One of the main sources of frustration is that /r/ has been treated primarily for its *consonantal qualities* while *ignoring* the more complex *vocalic qualities* or grouping all of the vocalic /r'/'s into one category entitled **vocalic /r/.** 





Using a phonemic approach to /r/
remediation will greatly assist you in
meeting the needs of your students



My first year out of graduate school, my supervisor gave me all of her students with R problems...



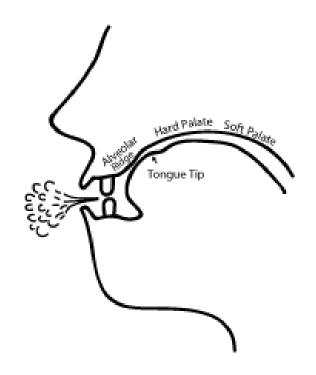




#### /R/ Is different From other phonemes

There is no consistent placement as there is for other phonemes

(e.g. /t/ or /s/, alveolar ridge).





Some students can produce one R controlled vowel but not another due to the changing nature of the sound.

The phoneme /r/ in the word "CAR" (/ar/ final) is pronounced differently from the word "FOR" (/or/ final) or the word "BUTTER" (/er/ final).

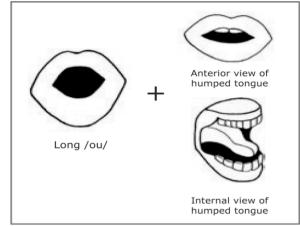


Figure 1-2 /or/ mouth position, as in FOR

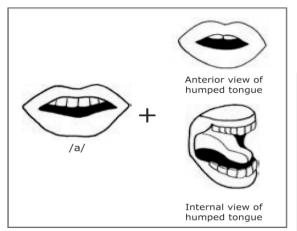
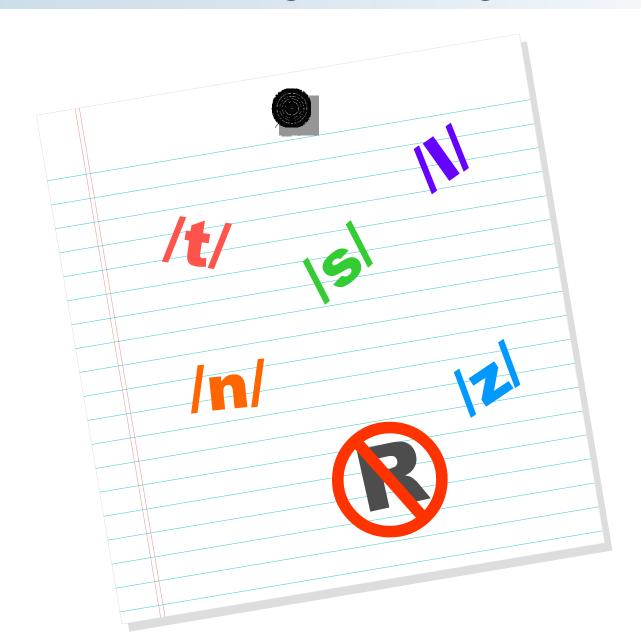


Figure 1-1 /ar/ mouth position, as in CAR

However, the final /r/ phoneme in the word "ANCHOR" is pronounced the same as the /r/ phoneme in the word "BUTTER. This is because they are both phonetically /er/ final words despite the spelling differences.



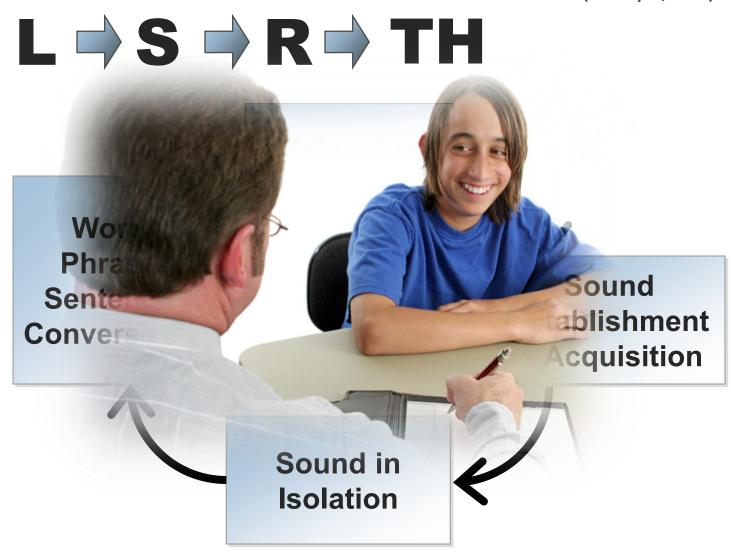
The traditional approach has not proven to be very effective when evaluating and treating R.





The traditional approach to articulation therapy focuses on correcting one sound at a time.

(Van Riper, 1978)





## The lack of a comprehensive remediation strategy has four primary causes:

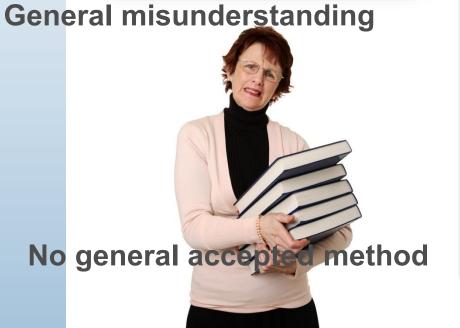


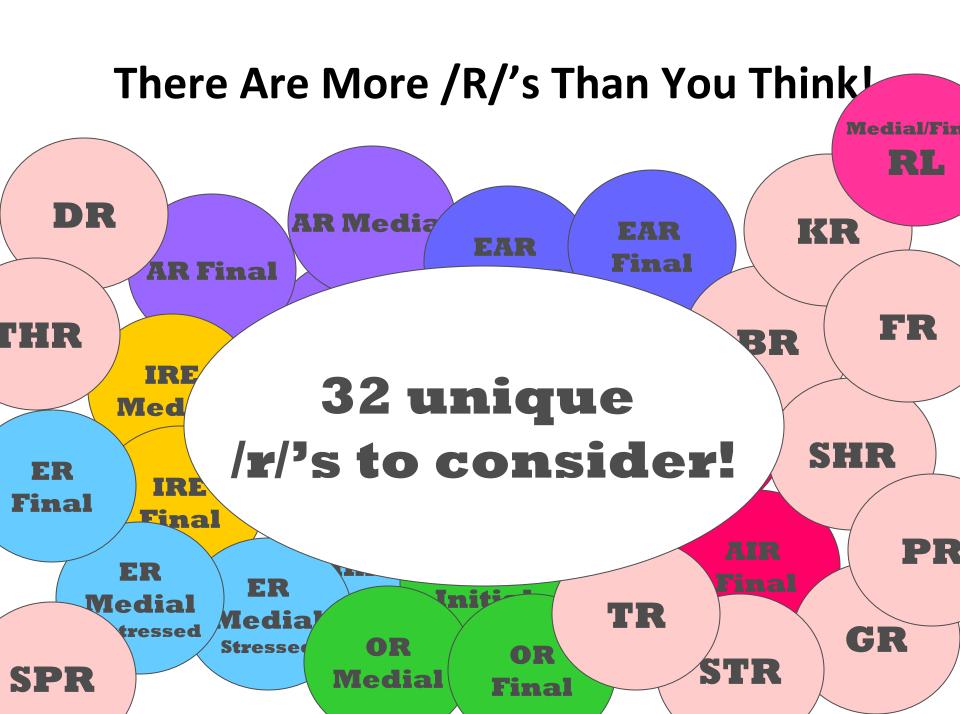


Incomplete remediation materials



**Deficiencies in education** 







#### R can be divided into three categories.



Prevocalic, Initial or Consonantal R



Vocalic or R-controlled



Consonant Blends

Few standardized measures fully assess vocalic R.



# Hierarchy of Prevocalic /r/ Words (retracted to rounded vowels)

reef
red
Rick
Roy
rug
raft
rock
round
roof
rain
ride



### Overview of Vocalic R's

1	er]	[or]	[ar]
E	Ernie	Orville	Archie
but	ttercup	corn	barn
fe	eather	four	star
[:	air]	[ire]	[ear]
_	air] Erin	[ire] Ireland	[ear] Erie
_	_		



### Overview of R Blends

PR	BR		TR		
Pride	Brought		Brought		Tried
Pretty	Bro	own	Tree		
DR	F	R	KR		
Drain	Fr	og	Crash		
Drum	Friend		Cry		
GR	SH	łR	STR		
Great	Sh	rug	String		
Green	Shi	rink	Street		
SPR			THR		
Spring	Spring		Thread		
Sprint			Three		



### Practice saying traditional /r/ approach practice words lists with your neighbor

# Traditional Approach Probe List Sample

<u>Initial</u>	<u>Medial</u>	<u>Final</u>
Ribbon	Barefoot	Car
Run	Buttercup	Fear
Rain	Thorn	Four
Race	Wireless	Butter
Ring	Barn	Software



### Practice saying phonemically consistent words with your neighbor

#### Phonemic Approach

[or] Initial	[or] Medial	[or] Final
Orville	Award	Snore
Ornament	Export	Adore
Organ	Fork	Core
Orient	Board	Floor
Oriole	Worn	Soar



### Comparison of Approaches:

<u>Initial Position</u>	Medial Position	Final Position
ribbon	barefoot	car
run	buttercup	fear
rain	thorn	four
race	wireless	butter
ring	barn	software

### Traditional Approach

Initial AIR	Medial AIR	<u>Final AIR</u>
Arizona	dairy	millionaire
Erin	ceremony	square
heiress	haircut	scare
arrowhead	barefoot	tear
aerosol	stairs	pair

versus

Phonetically-Consistent Approach



# Utilizing Traditional Approach to /r/ Probe Lists

- Does not account for each unique /r/ phoneme.
- Some words have recurrent /r/'s.
- Phonetically inconsistent probe lists for production training.
- Probe lists were compiled by spelling of word.



### What is the solution?



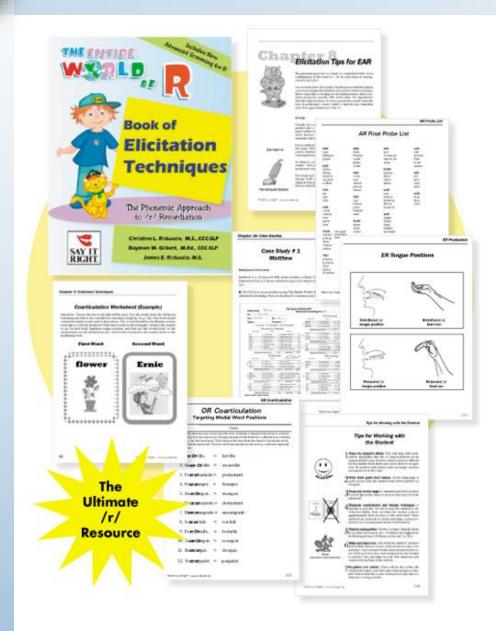


### The solution is to treat R Phonetically!





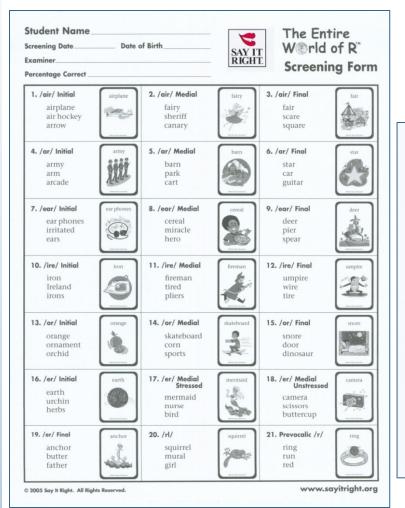
#### Benefits of using a phonetically-based approach:



- Evaluates
- all variations of R
- Provides
- a starting point for treatment
- Targetsindividual needs
- o Reduces time in therapy
- Measuresstudent progress



# There are 2 Screenings Available to Help You with your R Evaluations:



		Adv	anc	ed Screening	for /r/	SAY IT
SLP					EAR Screen	RIGHT
Date	Age			Single Words	Phrases	Sentences
largets:	Screen	ing #		earache	An earache.	I had an earache.
+ fo	r Correct 1 for Stimula	ble 0 for Incorrect	lone	earring	The earring.	She put on the earring.
10			4	earmuffs	The earmuffs.	I found the earmuffs.
	Prevocalic R Scr	eening		Total EAR Initial Co	prrect (out of 9)	Percent Correct
Single Words	Phrases	Sentences		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
red	A red sofa.	I bought a red sofa.	1 .	beard	Thick beard.	He had a thick beard.
rock	Found a rock.	Matt found a rock.	Media	steering	Is steering.	The woman is steering.
rabbit	A pet rabbit.	I have a pet rabbit.		serious	Was serious.	The boy was serious.
raccoon	A raccoon.	We saw a raccoon.		Total EAR Medial C	Correct (out of 9)	Percent Correct
radio_	The new radio.	The radio is new.		deer	Two deer.	I saw two deer.
Rob	Is Rob.	My name is Rob.	lond.	fear	Fear of heights.	She has a fear of heights.
rose	A rose bush.	Joe cut the rose bush.	- 4	hear	Hear the news.	Did you hear the news?
Total Prevor	salic R Correct (out of 20)	Percent Correct		Total EAR Final Co		Percent Correct
Single Words	AR Screen	Sentences		Single Words	AIR Screen	Sentences
art	The art.	We saw the art.		heiress	The heiress.	The heiress is home.
arm	Bob's arm.	I bumped Bob's arm.	Milital	airplane	An airplane.	An airplane goes fast.
arcade .	Arcade games.	I played arcade games.	1	area	This area.	This area is open.
Total AR Initi	al Correct (out of 9)	Percent Correct		Total AIR Initial C	orrect (out of 9)	Percent Correct
farm	At the farm.	We saw animals at the farm.	1	stared	We stared.	We stared at the house.
Denmark	To Denmark,	Mike will go to Denmark	list	Paris	We stared.  Went to Paris.	Cathy went to Paris.
cart	The cart.	We pushed the cart.	Modul	carrot	A carrot.	Jane ate a carrot.
Total AR Med	sial Correct (out of 9)	Percent Correct		Total AIR Medial	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Percent Correct
car	The car.	Bob played with the car.	1	Localitation	1	
far	Far away.	Jill went far away.	7	bear	The black bear.	The black bear ate the food.
	A star.	We saw a star.	7.00	hair	Nice hair.	You have nice hair.
1000		11 v 3011 d 3101.		fair	At the fair.	Bill ate at the fair.
star	al Correct (out of 9)	Percent Correct				



### The Advanced Screening Tool for R

SI	LP				ed Screening		RIC
						EAR Screen	ning
D	ate	Age			Single Words	Phrases	Sentences
To	argets:	Screen	ing #		earache	An earache.	I had an earache.
	+ for C	Correct 1 for Stimula	ble 0 for Incorrect	Imitial	earring	The earring.	She put on the earring.
	1	Dravagalia D. Care	anin a		earmuffs	The earmuffs.	I found the earmuffs.
	Single Words	Prevocalic R Scre	Sentences		Total EAR Initial Co	prrect (out of 9)	Percent Correct
					beard	Thick beard.	He had a thick beard.
	red	A red sofa.	I bought a red sofa.	Medial	steering	Is steering.	The woman is steering.
	rock	Found a rock.	Matt found a rock.	Me	serious	Was serious.	The boy was serious.
	rabbit	A pet rabbit.	I have a pet rabbit.				
	raccoon	A raccoon.	We saw a raccoon.		Total EAR Medial (	Correct (out of 9)	Percent Correct
	radio_	The new radio.	The radio is new.		deer	Two deer.	I saw two deer.
	Rob	Is Rob.	My name is Rob.	Final	fear	Fear of heights.	She has a fear of heights.
	rose	A rose bush.	Joe cut the rose bush.		hear	Hear the news.	Did you hear the news?
	Total Prevocalic	R Correct (out of 20)	Percent Correct		Total EAR Final Co	orrect (out of 9)	Percent Correct
	Single Words	AR Screen	Sentences		Single Words	AIR Screen	ning Sentences
	art	The art.	We saw the art.		heiress	The heiress.	The heiress is home.
muai	arm	Bob's arm.	I bumped Bob's arm.	Imitial	airplane	An airplane.	An airplane goes fast.
	arcade	Arcade games.	I played arcade games.	4	area	This area.	This area is open.
	Total AR Initial Co	prrect (out of 9)	Percent Correct		Total AIR Initial C	orrect (out of 9)	Percent Correct
	farm	At the farm.	We saw animals at the farm.		stared	We stared.	We stared at the house.
Medial	Denmark	To Denmark.	Mike will go to Denmark	Medial	Paris	Went to Paris.	Cathy went to Paris.
M	cart	The cart.	We pushed the cart.	Me	carrot	A carrot.	Jane ate a carrot.
	Total AR Medial C	Correct (out of 9)	Percent Correct		Total AIR Medial		Percent Correct
	car	The car.	Dob played with the eng				
Final	far	Far away.	Bob played with the car.  Jill went far away.	al al	bear	The black bear.	The black bear ate the foo
F	star	A star.	We saw a star.	Final	hair	Nice hair.	You have nice hair.
	Stat	A Stat.	we saw a star.		fair	At the fair.	Bill ate at the fair.
	Total AR Final Co	erroot (out of 0)	Percent Correct	1	Total AIR Final Co		Percent Correct



# Phonetically Consistent Probes are Different from "Traditional" Approach Probes







#### How to decide which tool to use:

21 Word Screening Tool

Advanced Screening for R

Most Rs are correct

You have limited time

No Rs are correct on the 21 Word Tool You have 2 or more possible targets

The student can't read

Interfering disorders are present

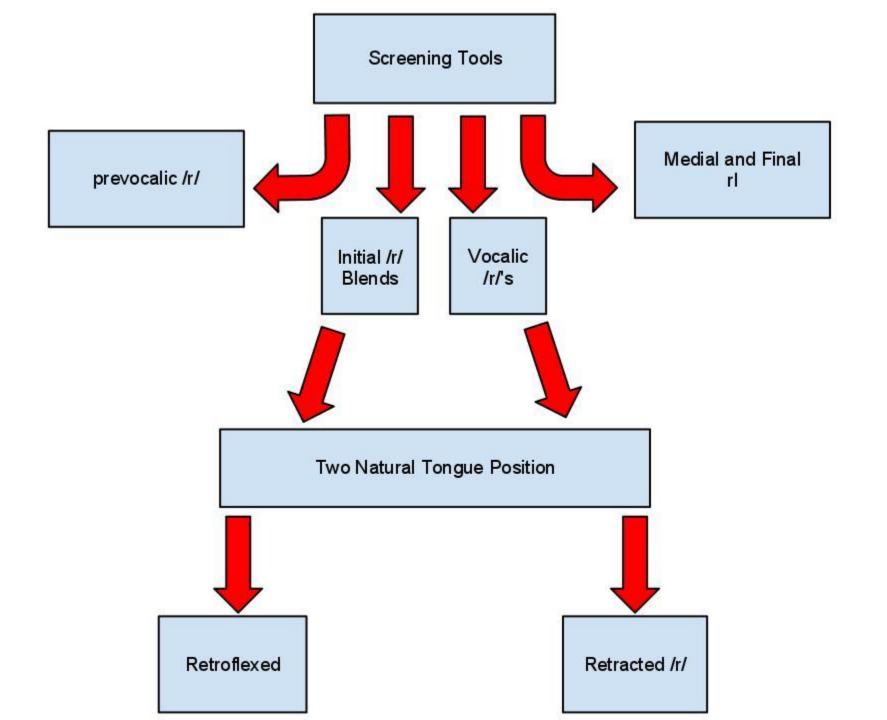
The case is particularly challenging

You want more information



#### **Phonemic Approach Evaluation**

- Evaluate all variations (31) of /r/ in all word positions.
- Establish/use natural tongue production.
- Remediate only the misproduced /r/ allophones.
- Choose targets based on students' individual needs.





#### Phonemic Approach Evaluation Method

- Evaluate all variations of /r/ in all word positions?
- Establish/use natural tongue production?
- Remediate only the misproduced /r/ allophones?
- Choose targets based on students' individual needs?



Help! What if my student can't say any of the Rs on the Advanced Screening Tool?





## Administer all sections of Elicitation Probe until a successful prompt is found





#### There are 2 variations of EWR Elicitation

Stude	nt Name		11
SLP_			
Date_		Prob	e #
Date o	of Birth:		
	+: Corr	ect 1: Stimu	lable 0 : Inco
		Bilabials (/p	o, b/)
	initial	medial	final
	earp	pearp	pier
	earb	bearb	beer
		abiodentals (	
	earf	fearf	fear
	earv	vearv	vear

ate		P	robe #	
ate of	Birth:			
		Initial /r/	hop	tub
row	/ro/			
rip	/r <sub>I</sub> /			
red	/re/			
rain	/re/			
reef	/ri/			
raft	/ræ/			
rido	/max/			



# Why Evaluate /r/ in a Comprehensive Manner?

- To find a starting point for treatment. Research shows that *almost all* students can produce at least 1 type of /r/.

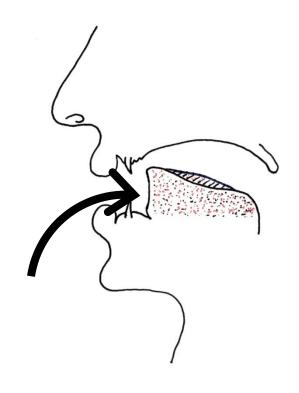
  (Curtis & Hardy, 1959; Ristuccia, 2005).
- Pinpoint exactly where to begin therapy according to your student's **individual** needs.

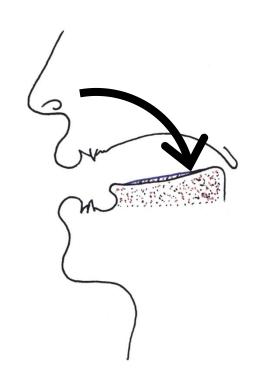
## **Screening Process**

- Screen student
- Write down correctly produced /r/ words
- Have student say a correctly produced /r/ word
- Attempt to establish natural tongue position



## There are 2 Ways to Produce R





Retroflexed

Retracted

Words such as art, or, and orchid are highly visual.

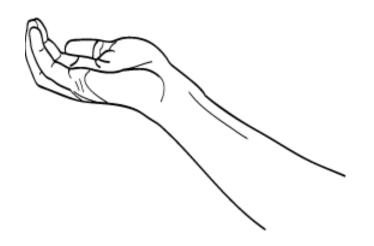


## Why Establish Natural Production?

- To know which verbal cues and hand signals to use as your starting point.
- To use what the student's tongue does <u>naturally</u> to increase kinesthetic awareness of tongue placement.
- Wrong tongue position can lead to distortion of /r/ productions.



## How Do You Know Which Type of R to Teach?





Retroflexed

Retracted



## How to Determine Tongue Position for /r/

Instruct the child to say one of the correctly produced /r/ words. Then ask, what is the tongue doing?

Use his productions to determine his natural production of /r/: retroflexed or retracted.



Establishing a student's natural production for R is important because it...



**Encourages** effortless, correct productions.



Reduces time in therapy.



Increases effectiveness of practice.





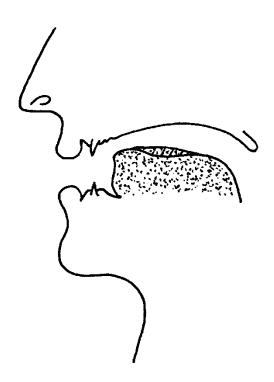




## **Natural Tongue Position is CRITICAL!**

"Easy not hard"

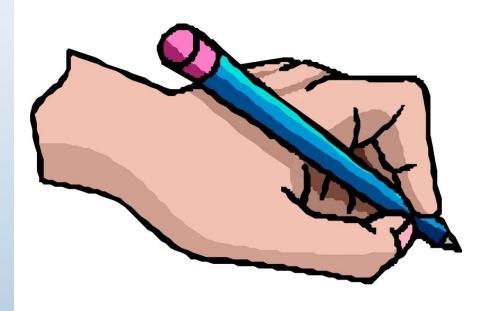
Leads to kinesthetic awareness = Carryover





## "Teaching" /r/

Teaching /r/ in a unnatural manner is . . .



... equivalent to teaching a child who is right handed write with the left hand



## **Establishing Natural Production Example: Brock**



## Kinesthetic Tongue Awareness

- When producing /r/ it is important for student be able to feel what the tongue is doing.
  - Mountain vs. Backward C
  - Tight vs. loose
  - Up vs. down during productions
- We need the student to be focused on feeling the mouth (body) vs. in their heads/thinking about the mouth.



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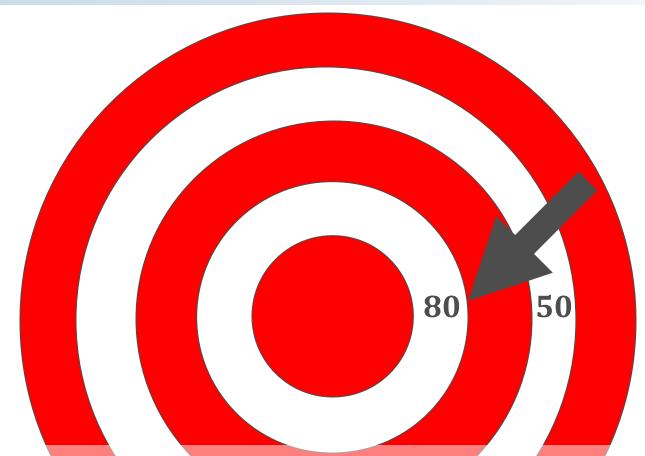
## When to Instruct Retroflex versus Retracted

The Entire World of R™

#### **Advanced Screening** Prevocalic R Screening ER Screening **Student Name** Single Words Sentences Single Words Phrases Sentences earth On earth. We live on planet earth. SLP red A red sofa. I bought a red sofa. Ernie went home rock Matt found a rock. Found a rock herbal Molly had herbal tea. Herbal tea. Date Age rabbit I have a pet rabbit. A pet rabbit Total ER Initial Correct (out of 9) Percent Correct A raccoon We saw a raccoon raccoon Target: Screening # first On first. Who's on first base? radio The radio is new. Rob Is Rob. turkey A turkey. We bought a turkey. My name is Rob Retroflexed Retracted mermaid The mermaid. The mermaid swam away. rose A rose bush Joe cut the rose bush + for Correct 1 for Stimulable 0 for Not Stimulable Total ER Medial Stressed Correct (out of 9) Percent Correct Total Prevocalic R Correct (out of 20) Percent Correct buttercup Picked a buttercup. Kim picked a buttercup. AR Screening AIR Screening camera A camera have a camera. Single Words Single Words Phrases Sentences Phrases Sentences wonderful Wonderful day. It is a wonderful day. The art. We saw the art. heiress The heiress The heiress is home. Total ER Medial Unstressed Correct (out of 9) Percent Correct arm Bob's arm. I bumped Bob's arm. airplane An airplane. An airplane goes fast. father My father is home. My father arcade Arcade games. I played arcade games. area This area. This area is open. Put butter butter put butter on the toast Total AR Initial Correct (out of 9) Total AIR Initial Correct (out of 9) Percent Correct Percent Correct tower The tower. The tower is tall. At the farm We saw animals at the farm. We stared We stared at the house. stared Denmark To Denmark Mike will go to Denmark. Paris Went to Paris. Cathy went to Paris OR Screening The cart. Ann pushed the cart. Jane ate a carrot. cart carrot A carrot Single Words Sentences Total AR Medial Correct (out of 9) Percent Correct Total AIR Medial Correct (out of 9) Percent Correct orca Orca whale. We saw an orca whale Bob played with the car. The car. bear The black bear. The black bear ate the food. ornament Nice ornament. Bob bought an ornament. far hair Jill went far away. Nice hair. Far away. You have nice hair Orville Orville's shoe. Orville's shoe is new. We saw a star. At the fair. Bill ate at the fair. A star Total OR Initial Correct (out of 9) Percent Correct Total AR Final Correct (out of 9) Total AIR Final Correct (out of 9) Percent Correct form We sent in the form. The form thorn Thorn bush The thorn bush stuck me. EAR Screening IRE Screening important An important day It is an important day. Single Words Phrases Single Words Phrases Sentences Sentences Total OR Medial Correct (out of 9) Percent Correct earache An earache I had an earache. ironwood The ironwood. She cut the ironwood. earring The earring She put on the earring. iron I ironed I ironed the pants. core Apple core. Tim found the apple core. Ireland before earmuffs The earmuffs I found the earmuffs. To Ireland. We went to Ireland. Went before. We went before the game. seashore The seashore. The seashore is fun. Total EAR Initial Correct (out of 9) Percent Correct Total IRE Initial Correct (out of 9) Percent Correct Total OR Final Correct (out of 9) Percent Correct beard Thick beard. He had a thick beard fireman A fireman Today we saw a fireman. steering Is steering. The woman is steering. hired Got hired. Jim got hired. RL Screening serious Was serious. The boy was serious. expired Expired today The eggs expired today Single Words Phrases Sentences Total EAR Medial Correct (out of 9) Total IRE Medial Correct (out of 9) Percent Correct Percent Correct pearl A pearl necklace. I have a pearl necklace. Curl my toes. Two deer. With the tire We played with the tire. curl I like to curl my toes. fear Fear of heights. wire world Of the world. He has a map of the world. She has a fear of heights Buy some wire. need to buy some wire. hear Hear the news. Did you hear the news? higher Higher up. Tom went higher up the hill. girls The girls. The girls are nice. Total IRE Final Correct (out of 9) Total RL Correct (out of 12) Total EAR Final Correct (out of 9) Percent Correct Percent Correct



## Choosing an Intervention Target: Method 1



Based solely on screening results, choose one sound most likely to correct based on screening → highest correct percentage below 80%.

# **Choosing a Target Checklist**

Student Name:	Date:
Gcreening #:	Date of Birth:
When Student Has at Le	Choosing a Target ast One Correct Production nced Screening
Does the student naturally use the re (tongue tip curled back and pointed up like backward wave)? (Refer to cueing technique	a cave or
Does the student naturally use the retip pulled up and scrunched back like a mo (Refer to cueing techniques on in Chapter 5)	untain or hump)?
Are there any sounds on the Advance between 50% and 80%?	ed Screening Yes / No
If yes, use the "Target Options Workshe List the sounds and percentage correct:	7
Do you have two (or more) interventi	
decide an intervention target.  List elicitation techniques attempted (coarticulation, elicitation probes) and state were successful.	

# **Target Options Worksheet**

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Student Name:

Screening #:		Date of Birth:
	Target Opt	tions Worksheet
Option 1 Sound	Percentage	Possible Elicitation Techniques
Option 2 Sound	Percentage	
Option 3 Sound	Percentage	
Target =		Rationale for choosing this target



## **Choose One Target and Stick With It!**

- Unless student is making no progress
- Why? Ensures student/SLP knows goal
- Allows for generalization
- Measureable progress (Ristuccia, 2005)
- Kinesthetic awareness of tongue position.

Student Name	N	latthew		The Entire							4	-
A D					dva	ınce	ed Screening	g fo	r /r/		SAY I RIGH	T
military and the second	S. Inner		1400	S - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					EAR Screen	ning		
Date_ 10-11-0	15	Age_	10	)			Single Words		Phrases		Sentences	
Targets:	_	Scree	ning	#_1_			earache	+	An earache.	14	I had an earache.	4
+ for Co	react	1 for Stimulable	. 0	for Not Stimulable		1	earring	٣	The earring.	1	She put on the earring.	+
· Ioi Co							earmuffs	+	The earmuffs.	t	I found the earmuffs.	+
Single Words	Pre	vocalic R Sci	reeni	ng Sentences			Total EAR Initial	Correct	(out of 9)	9	Percent Correct \\C	10
red	+	A red sofa.	1	I bought a red sofa.	1		beard	+	Thick beard.	4	He had a thick beard.	+
rock	1.4	Found a rock.	-	Matt found a rock.	+	Model	steering	+	Is steering.	+	The woman is steering.	+
rabbit	1	A pet rabbit.	1	I have a pet rabbit.	+		serious	+	Was serious.	+	The boy was serious.	+
raccoon	+		+	We saw a raccoon.	+		Total EAR Medi	al Correc	t (out of 9)	9	Percent Correct (	00
radio	+	The new radio.	1	The radio is new.	1		deer	+	Two deer.	1+	I saw two deer.	4.
Rob	*	Is Rob.	1	My name is Rob.	+	Jan P	fear		Fear of heights.	1	She has a fear of heights.	+
rose		A rose bush.	+	Joe cut the rose bush.	+	-	hear	+	Hear the news.	+	Did you hear the news.	+
Total Prevoca	elic R Com	ect (out of 20)	120	Percent Correct	00		Total EAR Final	Correct	(out of 9)	9	Percent Correct	100
Single Words		AR Scree	ning	Needs topes	ndel		Single Words		AIR Scree	nin	g Sentences	
art	+	The art.	1	We saw the art.	11		heiress	+	The heiress.	1	The heiress is home.	4
arm	+	Bob's arm.	1	I bumped Bob's arm.	-	Intitial	airplane	+	An airplane.	+	An airplane goes fast.	+
arcade	+	Arcade games.	+	I played arcade games.	+	4	area	*	This area.	1	This area is open.	+
Total AR Initia	al Correct	(out of 9)	13	Percent Correct	55		Total AIR Initia	al Correct	(out of 9)	19	Percent Correct	luc
farm	+	At the farm.	1	We saw animals at the farr	m.  +		stared	1+	We stared.	1	We stared at the house.	+
Denmark	+	To Denmark.	+	We will go to Denmark.	ŧ	Medial	Paris	+	Went to Paris.	4	Cathy went to Paris.	+
cart	+	The cart.	+	We pushed the cart.	١	2	carrot	+	A carrot.	+	Jane ate a carrot.	7
Total AR Med	iai Correc	t (out of 9)	18	Percent Correct	88		Total AIR Med	fial Come	ct (out of 9)	T	Percent Correct ]	σc
car	+	The car.	+	Bob played with the car.	11		bear	14	The black bear.	14	The black bear ate the food	i. 4
a far	_	Far away.		Jill went far away.	i	Found	hair		Nice hair.	+	You have nice hair.	+
star	+	A star.	+	We saw a star.	1	্	fair		At the fair.	+	Bill ate at the fair.	+

60

Total AIR Final Correct (out of 9)

Percent Correct

100

Percent Correct

Total AR Final Correct (out of 9)



# Transfer Advanced Screening Results Choose Baseline Results Page

Student Na	me																				SAY IT
SLP											The	E	ntir	e V	Voi	ld	of	R <sub>TM</sub>			RIGHT
0.4						A	dv	ar	106	d	Sc	re	en	ing	g R	les	ul	ts			
% corre		0/	· /:		/.								- No.	. /	,						
Screening	Previocâ	ite R Init	al Media	R Final	AR Initi	AR NE	ARTIN	AR Initi	AIR ME	MR FIR	at Initi	RE ME	grad fight	a Initia	Negigies Steller	ed Instr	SE FIRM	2 Initial	Media	Final	Target
Screening #1														·							, unger
Date	_																				
Screening #2		$\top$	П																		
Date	-																				
Screening #3																					
Date	_																				
Screening #4																					
Date	_																				
Screening #5																					
Date	_																				
Screening #6																					
Date																					
©2006 Say It Right All			ш							- Act											



## **Goal for Choosing a Target**

- Work with students correct productions
- Consistent production probe lists
- Increase students kinesthetic awareness of what her tongue is doing during correct productions.

Student success is Priority: If student is not successful, choose another target or readminister the Advanced Screening or administer the Elicitation Probe.



## Which target do you choose? Why?

Intervention Target =

Students success



The EWR Approach #1 is based on establishing what the student does most naturally.

retracted R then <u>focus on</u> one target at a time until mastery is achieved.

Elicitation strategies are based on the target selection.

Use the phonetically consistent probe lists to help pinpoint your therapeutic direction.



## **Screening / Target Selection**

- Admini ster EWR Advanced Screening
- Fill in Baseline Results page.
- Take results and write out possible target options (Target Options worksheet page)
- Choose a target based on:
  - Elicitation techniques
  - Percentage correct



## Write a treatment Goal for [AR] final

■ Sample IEP Goal:

■ Sample Working File Goal:



# Treatment Goal Sample

## Sample Goal:

Alex will produce [ar, or, ire, and ear] with 80% accuracy at the sentence level for 5 consecutive sessions.

## Sample Working File Goal (s):

Alex will produce [ar] initial, medial & final word positions with 80% accuracy for 5 consecutive sessions. [ar] final will be the first target followed by [ar] initial.

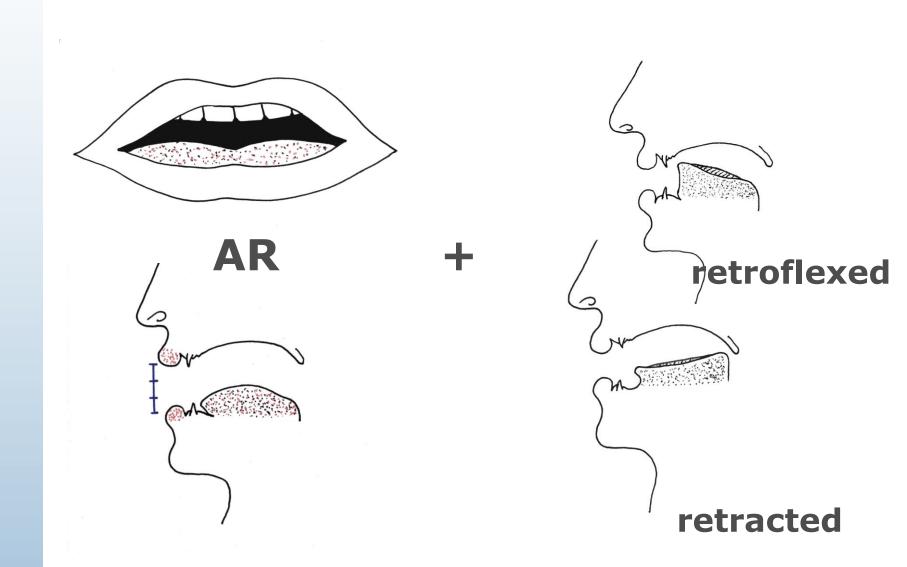


# Utilize Phonetically Consistent Probe Lists for Production Practice (Method one)

- AR visual teaching tools
- AR auditory environmental sounds.
- AR initial single word probe lists
- AR initial phrases
- AR initial sentences
- AR initial stories
- AR Mixed complexity practice



# **AR Visual Teaching Tools**





## Visual Rs are Easier to Teach

## Words containing visual Rs:



## Words containing non-visual Rs:





### Say Ahhh-RR!

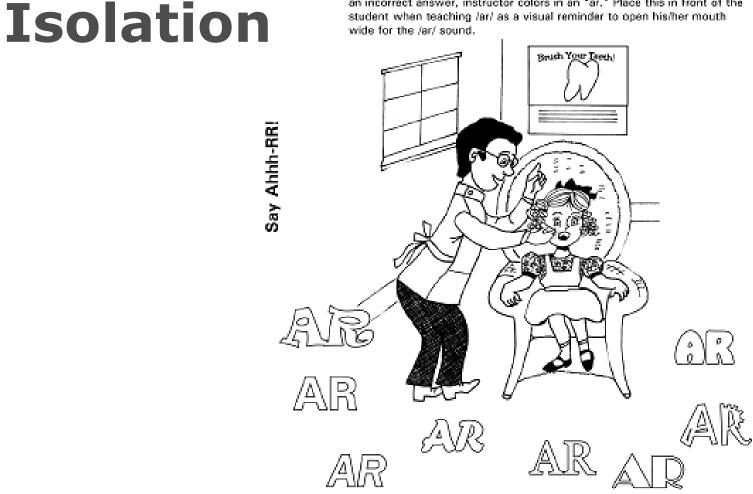
Name:

Date:

Directions:

What does the doctor or dentist say when they want you to open your mouth? "Ahh." Color in the picture and say "ahhh-RR" while coloring. For correct pronunciation, student gets to color in an "ar" letter combination. For an incorrect answer, instructor colors in an "ar." Place this in front of the student when teaching /ar/ as a visual reminder to open his/her mouth wide for the /ar/ sound.







# Using the Pirate Sound





### /ar/ Initial Single Words

Name:	Date:

Directions: Say each word slowly. Make sure to elongate the initial /ar/ sound. Mark the speech/homework block as appropriate for correct pronunciation.

### <u>Ar</u>chie



Speech \_\_ Homework

### artifact



Speech \_\_\_ Homework \_

#### army



Speech \_\_\_ Homework

### <u>arg</u>ument



Speech Homework

### **Argentina**



Speech \_\_\_ Homework \_\_\_

#### <u>ar</u>cade



Speech \_\_\_ Homework \_\_

/ar/ Initial Single Words



### /ar/ Initial Phrases

lame:	Di	ate:		
			he initial /ar/ sound. M orrect pronunciation.	a
		Speech	Homework	
A big a <u>rm</u> adillo.				
Susan's <u>ar</u> m.				
<u>Ar</u> t show.				
Archie the cat.				
Army boots.				

/ar/ Initial Phrases



## /ar/ Initial Sentences

Name:		Date:	
Directions:	the sentence for the		h set, changing the end of s. Mark the speech/homework
<u>Ar</u> chie	e likes	Speech	h Homework
	arcades	art	the architect's plans
<u>Ar</u> den	went to	Speech	n Homework
	(C)		the architect's plans  Homework
	Argentina	the Arctic	the army
<u>Ar</u> nie	has two	Speech	n Homework
		The state of the s	2.E
	artifacts	armadillos	arms



### <u>AR</u>CHIE'S <u>AR</u>T

#### Review the following words:

<u>Ar</u> den	<u>Ar</u> ion	<u>ar</u> tist
<u>Ar</u> chie	<u>ar</u> cade	<u>ar</u> t
<u>ar</u> m-in- <u>ar</u> m	<u>ar</u> mful	

Tim and **Ar**den lived in the town of **Ar**ion. One day, they walked downtown and saw **Ar**chie, the cat, playing with some **ar**t supplies that someone had lost. Both Tim and **Ar**den picked up an **ar**mful of pallets and paints. In town, the **ar**tist saw them and gave them some money because they had found his **ar**t supplies. Then, Tim and **Ar**den went to the **ar**cade and spent the money on games and snacks. Finally, Tim and **Ar**den went home **ar**min-**ar**m, happy to have had such a fun day.

With what was <u>Ar</u> chie the cat playing?	
Who gave them money?	_
What did <u>Ar</u> den and Tim do with the money?	_





<u>Ar</u>mando, the <u>ar</u>chitect, ate <u>ar</u>tichokes

in Armen's Kitchen.



# Why focus on one sound and word position at a time?

- Provides consistent practice & repetition.
- Enhances ear training/motor planning.
- Ensures student/SLP knows goal.
- Allows productions of other misproduced /r/ allophones not yet targeted in therapy to generalize.
- Document student progress.



## The Phonetically Consistent Approach-Method 1

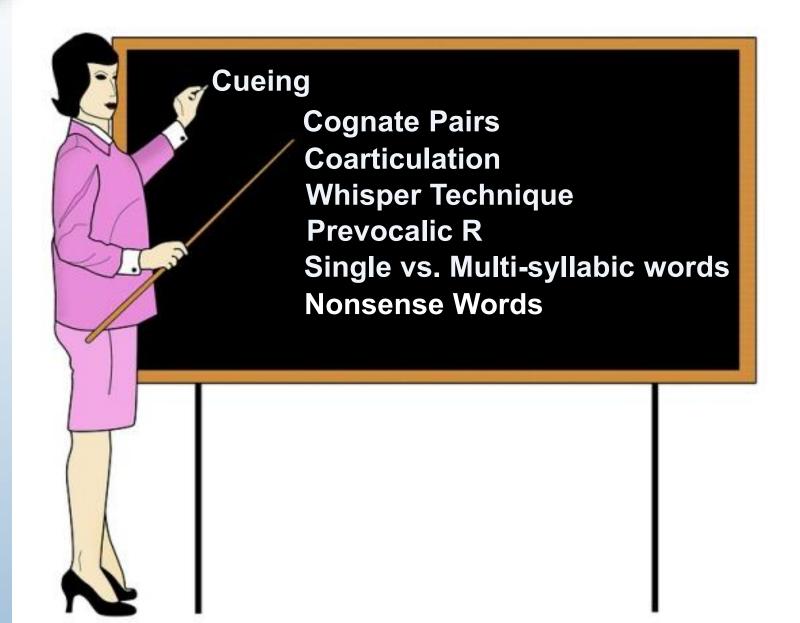
Consistently focus on one target at a time until mastery.

Matches elicitation techniques to target.

Utilizes phonetically consistent word lists for production training.



## Overview of Our Favorite Techniques





## Coarticulation

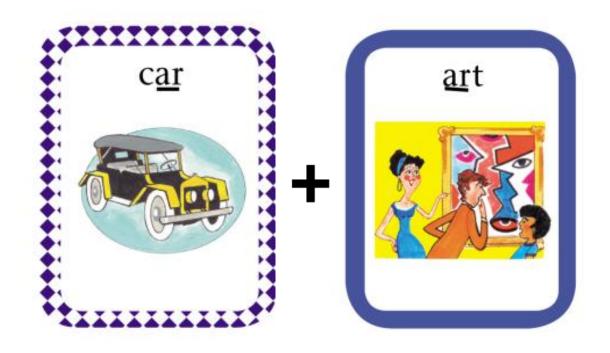
Works best with a correctly produced final word and a misproduced initial word (or vice versa)

Review baseline screening results page

Use student's success in one word position to help shape the other misarticulated word positions (e.g. car art).

**Technique:** Have student produce one word and hold tongue in the same position, then produce the next word.



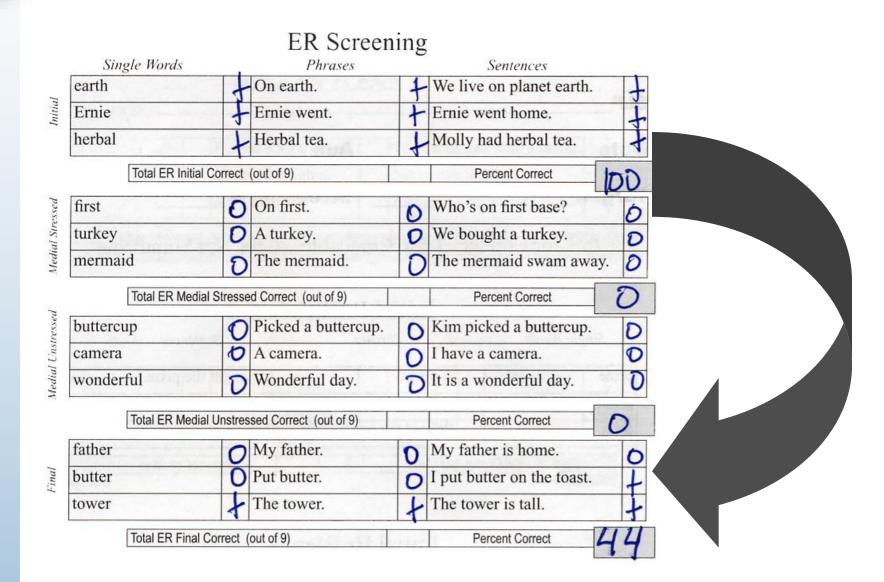


ERnie teachERnie teachER

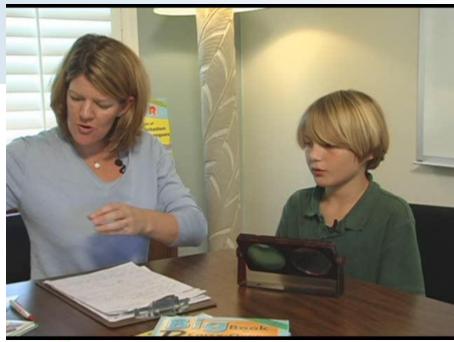
teachER teachERnie ERnie

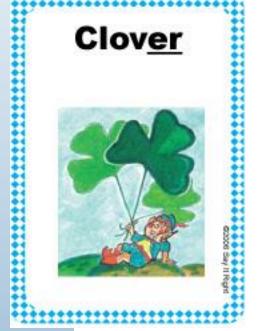


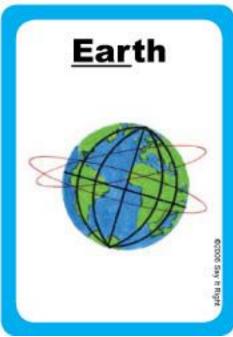
### Coarticulation













## Use Prevocalic /r/ to Elicit a Misproduced /r/ Allophone

A successfully produced prevocalic /r/ can be used to shape other /r/ variations.

Example:

ear red

slowly fade out red.



Gradually fade the cues as soon as the target is consistently produced using the technique.





## When Prevocalic /r/ is an Ideal Target

Student is substituting w/r or lip rounding for

- Prevocalic /r/
- Initial /r/ blends



## Remediation of (Prevocalic /r/)

Have student use a mirror so that she can see her own mouth. This is important to eliminate any lip rounding and ensure that the student is producing both the /r/ plus the vowel.





## Cueing Example: Jordan



# This is an Example of a Prevocalic /r/ Production Practice Session Target: /r/ + /i/

#### Single Words

reef, read, remind

#### Phrases

- The reef
- Love to read
- Please remind

#### Sentences

- We saw reef in the ocean.
- *I like to read.*
- Please remind me to eat.

## CASE STUDY FOR /R/



## Case Study #1: Matthew (Method 1) Verbal

- Matthew
- ■10 year-old 5<sup>th</sup> grader



- Mispronounces his /r/'s
- You conduct Advanced Screening....

Student Name	N	latthew		The Entire							4	-
A D					dva	ınce	ed Screening	j fo	r /r/		SAY I RIGH	T
market to the second			-700	S - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					EAR Screen	ning		
Date_ 10-11-0	5	Age_	10	)			Single Words		Phrases		Sentences	
Targets:		Scree	ning	#_1_			earache	+	An earache.	14	I had an earache.	4
+ for Co	react	1 for Stimulable	. 0	for Not Stimulable		1	earring	7	The earring.	1	She put on the earring.	+
Tior Co							earmuffs	+	The earmuffs.	t	I found the earmuffs.	+
Single Words	Pre	vocalic R Sci	reeni	ng Sentences			Total EAR Initial	Correct	(out of 9)	9	Percent Correct \\C	10
red	+	A red sofa.	1	I bought a red sofa.	1		beard	+	Thick beard.	4	He had a thick beard.	+
rock	1.4	Found a rock.	-	Matt found a rock.	+	Model	steering	+	Is steering.	+	The woman is steering.	+
rabbit	1	A pet rabbit.	1	I have a pet rabbit.	+		serious	+	Was serious.	+	The boy was serious.	+
raccoon	+		+	We saw a raccoon.	+		Total EAR Media	al Correc	t (out of 9)	9	Percent Correct (	00
radio	+	The new radio.	1	The radio is new.	1		deer	+	Two deer.	1+	I saw two deer.	4.
Rob		Is Rob.	1	My name is Rob.	4	Jan P	fear		Fear of heights.	1	She has a fear of heights.	+
rose		A rose bush.	+	Joe cut the rose bush.	+	-	hear	+	Hear the news.	+	Did you hear the news.	+
Total Prevoca	lic R Corr	ect (out of 20)	120	Percent Correct	00		Total EAR Final	Correct	(out of 9)	9	Percent Correct	100
Single Words		AR Scree	ning	Needs topes	ndel		Single Words		AIR Scree	nin	g Sentences	
art	+	The art.	1	We saw the art.	11		heiress	4	The heiress.	1	The heiress is home.	4
arm	+	Bob's arm.	1	I bumped Bob's arm.	-	Intital	airplane	+	An airplane.	+	An airplane goes fast.	+
arcade	4	Arcade games.	+	I played arcade games.	+	4	area	*	This area.	1	This area is open.	+
Total AR Initia	Correct	(out of 9)	15	Percent Correct	55		Total AIR Initia	Correct	(out of 9)	19	Percent Correct	luc
farm	+	At the farm.	1	We saw animals at the farr	m.  +		stared	1+	We stared.	1	We stared at the house.	+
Denmark	+	To Denmark.	+	We will go to Denmark.	ŧ	Medial	Paris	+	Went to Paris.	4	Cathy went to Paris.	+
cart	+	The cart.	+	We pushed the cart.	١	2	carrot	4	A carrot.	+	Jane ate a carrot.	7
Total AR Med	al Correc	t (out of 9)	18	Percent Correct	88		Total AIR Med	iai Come	ct (out of 9)	T	Percent Correct ]	σc
car	+	The car.	+	Bob played with the car.	11		bear	14	The black bear.	14	The black bear ate the food	i.   4
a far	_	Far away.		Jill went far away.	i	Found	hair		Nice hair.	+	You have nice hair.	+
star	+	A star.	+	We saw a star.	1	্	fair		At the fair.	+	Bill ate at the fair.	+

60

Total AIR Final Correct (out of 9)

Percent Correct

100

Percent Correct

Total AR Final Correct (out of 9)

#### IRE Screening

#### OR Screening



Single Words		Phrases		Sentences			Single Words		Phrases		Sentences	_
ironwood	1	The ironwood.	+	She cut the ironwood	+		orca	+	Orca whale.	4	We saw an orca whale.	4
iron	+	I ironed.	+	I ironed the pants.	+	hatta	ornament	1	Nice ornament.	+	Bob bought an ornament.	1
Ireland	+	To Ireland.	+	We went to Ireland.	+	~	Orville	+	Orville's shoe.	+	Orville's shoe is new.	+
Total IRE Initia	al Correct	(out of 9)	9	Percent Correct C	26		Total OR Initia	Correct	(out of 9)	9	Percent Correct C	00
fireman	1	A fireman.	1+	Today we saw a fireman.	4		form	+	The form.	4	We sent in the form.	4
hired	+	Got hired.	+	Jim got hired today.	7	forfine	thorn	+	Thorn bush.	7	The thorn bush stuck me.	1
expired	1	Expired today.	1	The eggs expired today.	1	4	important		An important meeting.	+	I went to an important meeting	+
Total IRE Med	sal Correct	t (out of 9)	6	Percent Correct 6	6		Total OR Med	al Correc	t (out of 9)	9	Percent Correct	00
tire	1	With the tire.	11	We played with the tire.	+		core	+	Apple core.	4	Tim found the apple core.	+
wire	+	Buy some wire.	1	I need to buy some wire.	+	J.	before	1	Went before.	+	We went before the game.	-
higher	+	Higher up.	+	Tom went higher up the hill.	1		shore	+	The sea shore.	T	The sea shore is fun.	)
Total IRE Fina	al Correct	(out of 9)	16	Percent Correct (e	d		Total OR Fina	Correct	(out of 9)	7	Percent Correct 7	77
										- 51		

ER Screening

Single Words		Phrases		Sentences	_
earth	+	On earth.	+	We live on planet earth.	+
Ernie	+	Ernie went.	+	Ernie went home.	1
herbal	1	Herbal tea.	+	Molly had herbal tea.	+
Total ER Initial	Correct	(out of 9)	8	Percent Correct S	8
first	+	On first.	+	Who's on first base.	T
turkey	7	A turkey.	+	We bought a turkey.	4
mermaid	+	The mermaid.	+	The mermaid swam away.	1
Total ER Media	Stresse	ed Correct (out of 9)	8	Percent Correct (	00
buttercup	+	Picked a buttercup.	+	Kim picked a buttercup.	1
camera	7	A camera.	+	I have a camera.	+
wonderful	+	Wonderful day.	+	It is a wonderful day.	+
Total ER Media	d Unstree	ssed Correct (out of 9)	9	Percent Correct	00
father	4	My father.	+	My father is home.	+
butter	+	Put butter.	+	I put butter on the toast.	+
tower	1	The tower.	1	The tower is tall.	+
Total ER Final	Соггест	(out of 9)	C	Percent Correct	00

#### **RL** Screening

Single Words		Phrases		Sentences	
pearl	+	A pearl necklace.	4	I have a pearl necklace.	+
curl	T	Curl my toes.	+	I like to curl my toes.	+
world	+	Of the world.	+	He has a map of the world.	+
girls	T	The girls.	1	The girls are nice.	F

+ for Correct 1 for Stimulable 0 for Not Stimulable

#### Retracted / Retroflexed

otes	Needs +	0 0	pen	mush	wider
^	now o tene	A	wed to	cudd	Drosod

#### The Entire World of R™

Student	Name_	Matthew	
SLP	C. R	STUCKA	

#### Advanced Screening for /r/: Initial Blends

Single Words

Single Words



SLP	C. RISTUCC				,	,,,,	2.0	RIGH	T.
orb	To the second second	A. T	000000 17			Initial Dr B	lends		
Date_	10-11-05	_ Age_	10	Single Words		Phrases	Sentences		
Target	s:	Scree	ning #1	dream	+	A bad dream.	I had a bad dream.		Г
				dry	+	Dry a dish.	Ted dried the dish		T
4.4	For Correct 1 for	Ctimulahl	o O for Not Stimulahi	drum	+	Play the drum.	I play the drums.		Г
Τ.	or Correct 1 101	Sumulable	e 0 for Not Stimulable	Total Dr Initial C	Correct	out of 9)	Percent Correct	17	U

#### Initial Pr Blends

Single Words		Phrases	Sentences
prize	1	A prize.	Jo bought the prize.
prune	+	Ate the prune.	I ate the prune
print	+	Printed the book.	Bob printed the book.
Total Prinitial	Correct	(out of 9)	Percent Correct /CC

#### Initial Kr Blends

Physican

crib	+	In the crib.	The baby slept in the crib.
crash	+	By the crash.	Today the bike crashed.
crumb	4	A cookie crumb.	Sam ate the cookie crumb.

#### Initial Br Blends

Sentences

Sentences

Phrases

Brad	1	Saw Brad.	I saw Brad today.	Т
brown	+	Likes brown.	Bill likes brown.	1
bridge	+	On the bridge.	We went on the bridge.	T
Total Br Initia	Correct (	out of 9)	Percent Correct #	cc

#### Initial Gr Blends

Sentences

Phrases

grape	+	Ate a grape.	Pam ate a grape.
great	+	A great time.	Ted had a great time.
green	+	A green towel.	Jane bought a green towel.

#### Initial Tr Blends

Phrases

trap	+	In the trap.	The animal went in the trap.
trash	1	The trash.	She took out the trash.
truck	+	By the truck.	Alex stood by the truck.

#### Initial Thr Blends

Single Words		Phrases	Sentences
thread	+	Spool of thread.	I have a spool of thread.
three	+	Count to three.	Matt counted to three.
throat	+	My throat.	I cleared my throat.
Total Thr Initial	Correct	(out of 9)	Percent Correct / 00

Single Words

Single Words



#### Initial Shr Blends

Single Words Phrases		Phrases	Sentences	
shrank	+	Shrank the clothes.	Jim shrank the clothes.	
shrub	1	By the shrub.	The ball went by the shrub.	
shrug	4 Shrugged his shoulders. Jake shrugged his sh		Jake shrugged his shoulders.	
Total Shr Initial	Correct	(out of 9)	Percent Correct   True	

#### Initial Fr Blends

Sentences

Phrases

Single Words

frozen	+ The frozen ice.	The ice was frozen.
Friday	→ On Friday.	We will go on Friday.
frog	↓ A frog.	A frog jumped in the pond.
Total Fr Initial	Correct (out of 9)	Percent Correct 1/1/

#### Initial Str Blends

Single Words		Phrases	Sentences
string	+	Played with string.	The cat played with string.
strung	+	Strung the lights.	Joe strung the lights.
straw	+	A straw hat.	Jake wore a straw hat.
Total Str Initia	Correct	(out of 9)	Percent Correct 101

#### Initial Spr Blends

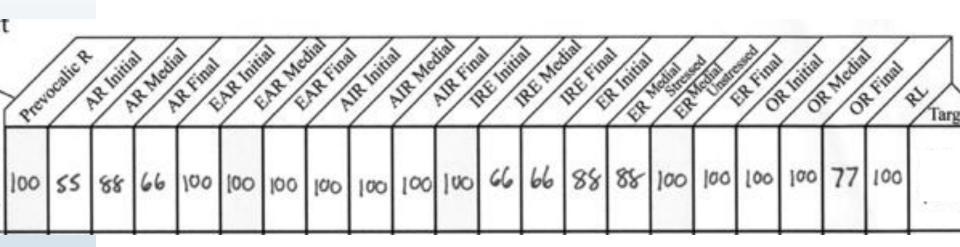
Single Words		Phrases	Sentences
spring	+	Spring time.	Spring time is here.
sprung	+	The plant sprung.	The plant sprung up.
sprinted	+	Sprinted down.	He sprinted down the hall.
Total Spr Initial	Correct	(out of 9)	Percent Correct / Ø

+ for Correct 1 for Stimulable 0 for Not Stimulable

Notes	N.	problem	with	blevds.	



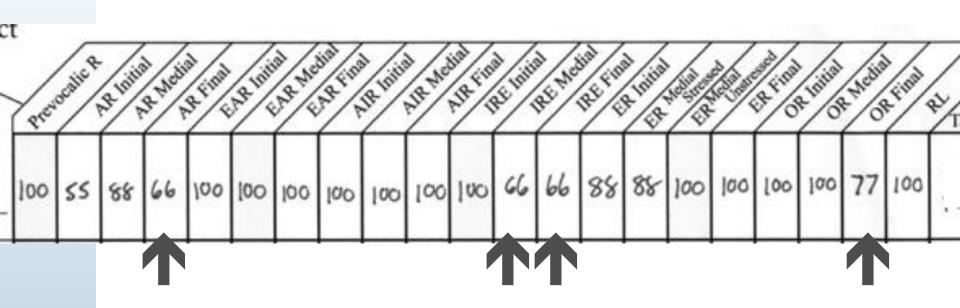
## Matthew Results-Baseline Results Page



- Student uses retracted /r/.
- •Successfully produces all initial /r/ blends



## What targets are options for Matthew?



- [ar] Final 66% [or] Final 77%
- [ire] Medial 66% [ire] Final 66%

## **Note Correctly Produced /r/ Words**

- Use for natural tongue position establishment
- Warming up for production practice
- Are possible targets
- Can send home words for homework



## Matthew's goals

and [or] with 80% accuracy over 5	IEP Goals	Matthew will produce [ar], [1
Designation of the appropriate the state of		ve therapy sessions as measured

Working File Goals Matthew will produce
[ar] initial, Medial, and final word positions
with 80% accuracy over 5 Consecutive
Sessions. [ar] final is the first target followed
by [ar] initial. Matthew will open his Mouth
Wider during [ar] productions.



### **Evaluation Review**

Goal: To find a correct production

■ Using the correct production establish whether the students naturally uses a retroflex vs. retracted /r/.

■ Choose an appropriate target within the same sound family in which the correct word was produced.



## Review: Evaluation and Target Selection

- Evaluate all variations of /r/.
- Interpret the evaluation results.
- Choose one intervention target by determining allophone with highest chance of improvement.
- Write goals and objectives.



## Ways to Measure Student Progress:

- Briefly review previously mastered targets to check for retention.
- Use advanced screening tool to collect current data and evaluate direction of therapy.
- Use Daily Data Collection and Daily Tally Sheets to measure progress day to day.



## In Public Schools Working with Groups is a Reality

Attempt to schedule all /r/ students together.





## Reasons for Lack of Progress: Chronic /r/ Students

- Traditional approach was taught with lack of target/wrong target.
- Student taught incorrectly (er red, er run)
- Student taught unnatural tongue position.
- Speech has become **effortful**.



## **Dismissal Criteria**

- When students can produce all /r/ allophones with at least 80% mastery at the sentence level.
- When students, parents, and teachers report it is no longer a problem.
- When articulation needs can be addressed at home or in the classroom.



## Questions?



### **Handout & References**

www.sayitright.org/resources