


The Entire World of Sibilants™



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Sibilants Have Similar Sound Production

- Related sounds. They are produced at or just behind alveolar ridge (bumpy gum area behind front teeth).
- Airflow restricted or released by tongue causes production and common "hissing" sound.

Sibilant Consonants

- Refers to the common hissing sound of these sounds:

S, Z, SH, CH, J, ZH
IPA: /s/, /z/, /ʃ/, /ʒ/, /dʒ/, /ʒ/

Lisp Disorders

- Misarticulation of sibilants. Commonly s, z & sh.
- Two main types of lisps:

Frontal & Lateral

Frontal Lisp

- Most common
- Also called interdental lisp
- Trademark sound - /th/
- Cause: Tongue is protruding too far forward. May actually be visible during speech.
- Goal: To bring tongue tip back

Lateral Lisp

- Less visible, more audible problem.
- Caused by tongue in wrong location (too low) allowing air to escape (primarily from sides of the mouth).
- Sound produced is often "wet" or spitty. Sometimes called a "slushy S."
- Goal: Focus air stream out front of the mouth.

Voiced Cognates

- The sibilants each have voiced cognates. Each sound has a twin, with the only difference being one sound is voiced (vocal cords vibrate) while the other is voiceless.

Not Voiced	>	Voiced
/s/	>	/z/
/ʃ/	>	/dʒ/
/ʒ/	>	/ʒ/

EW S & Z Approach to Lisp Disorders

- Groups frontal and lateral lisps together for treatment.
- Correct production of both frontal and lateral lisps lies in the alveolar ridge region.
- Goal is to simplify treatment.

The Entire World of 542™ Screening Form

Student Name: _____ Date of Birth: _____

Screening Date: _____

Initials: _____

1. Sibilant /s/	2. Sibilant /z/	3. Fricative /ʃ/
4. Sibilant /z/	5. Sibilant /ʃ/	6. Fricative /ʒ/
7. /s/	8. /z/	9. /ʃ/
10. /z/	11. /ʃ/	12. /ʒ/
13. /s/	14. /z/	15. /ʃ/
16. /z/	17. /ʃ/	18. /ʒ/
19. /s/	20. /z/	21. /ʃ/
22. /z/	23. /ʃ/	24. /ʒ/

Case Study #1

- Sally Morris is a 7 year-old second grader at Seaford Avenue Elementary School.
- She is referred due to not being able to pronounce her /s/'s.

Case Study #1

Sally cannot produce any /s/'s correctly.

The SLP determines that she has a Frontal Lisp Disorder.

Case Study #1

Sally's Remediation Strategy:

- Teach "exploded /t/"
- Practice /ts/
- Alveolar target exercises – /ns/, /ls/
- /s/ in initial, medial, final word positions
- Initial blends and final clusters.

The Exploded /t/

- /t/ and /s/ are both created in the same phonemic production zone.
- Press tongue to alveolar ridge to restrict airflow, release air. /t/ is created.
- Use /ts/ final words – pots, nuts, kites, pants, carrots, etc.

/ts/ Final Single Words

/ts/ Final Phrases

/ts/ Final Sentences

- Cleo, the cat said meow.
- Matt said hi to Jim.
- Robert's son, David, waved hello.
- We like the pilot's seat.
- It's sunny today.
- The kites soared in the air.

/ts/ Final Stories

Robert's dad coached the little league team, the Mets.
 The Mets needed new equipment. They bought a few bats and nine mitts.
 The batter tried out the new bats and the catcher tried out the new mitts.
 Robert's dad called out, "Now we're ready." "Let's play ball and get lots of hits!"
 "Let's go Mets!!"

Alveolar Target Exercises

- Sibilants are produced at the alveolar ridge region as are other consonants - /l/, /n/, /d/.
- Use the other consonants to facilitate production.
- E.g. Tan silo pens
 Feel sad reads

/ns/ Phrases

Tan nsilo.
 Ben nsat.
 Len nsang.
 Nan nsigned.
 Ken nsent.

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/Is/ Sentences

I feel sad.
 Darren will sail today.
 Carnivals sell candy.
 April sang in the play.
 Bill sat at the kitchen table.

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/Is/ Sentence with /s/ Initial in Isolation

I feel sad today. → sad today
 Darren will sail Monday. → sail Monday
 Carnivals sell candy. → sell candy
 Kel sang in the choir. → sang in the choir

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Auditory, Tactile and Visual Cues

- Incorporate a multi-modality approach to learning. Involve as many senses as possible.
- E.g. snake sound color or trace a large "s" use snake cue –wavy motion

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Big /s/

Name: _____ Date: _____

Directions: Trace the snake to color the "S". This activity provides a tactile and auditory cue for the sound. Use the "S" for wavy motion to trace and color.

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/s/ Blends and Final /s/ Clusters

- Initial Blends: /sp/, /str/, /sl/, etc.
- Final Clusters: /sk/, /sp/, /sk/, etc.
- Address as necessary to correct specific articulation disorders.

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/sp/ Initial Single Words

Name: _____ Date: _____

Directions: Use each word picture. Write the word for each picture on the line. Use the word to write the word on the line.

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Activity: Forest

Name: _____ Date: _____

Directions: Identify the word in each picture. Write the word on the line. Use the word to write the word on the line.

Final /st/ Exercise

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/s/ and /z/ Activity: Plural Endings

Name: _____ Date: _____

Directions: Practice using the /s/ and /z/ plural endings. Read each word and write the plural form on the line.

1. bag _____ 9. car _____
 2. seat _____ 10. glove _____
 3. map _____ 11. leg _____
 4. box _____ 12. hat _____
 5. zebra _____ 13. dress _____
 6. laugh _____ 14. shirt _____
 7. duck _____ 15. shoe _____
 8. bird _____ 16. pot _____

Sometimes the /z/ is devoiced after remediated /s/

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Voiced Consonant Rule

- In English when there is a voiced consonant preceding the final "s" the /s/ is pronounced as a /z/.

Voiced Consonants Pronounced as /z/	
Tom's	nurs
Bill's	Buzz's
badges	legs
spurs	Bob's
gloves	cars

Non-voiced Consonants Pronounced as /s/	
Rick's	banks
escape	shirts
Matt's	clinics
links	cells
fluffs	laughs

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Voiced Consonant Rule:

When a word ends in a:
/b/, /d/, /g/, /m/, /n/, /r/, /v/ & /z/
the final /s/ is pronounced as a /z/.

For Example:

combs	cans
folds	cars
legs	sleaves
hams	breezes

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Vowel Ending Rule:

All vowels are voiced. When a word ends in an /s/ and the preceding sound is a vowel, the plural /s/ is pronounced as a /z/.

For Example:

bees	sews
does	lays

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Spelling Confusion

/S/ Different Spelling, Same Pronunciation S as in soup C as in city Sc as in science X as in box	/J/ Different Spelling, Same Pronunciation Ch as in ship Cj as in sufficient S as in sugar Tj as in rational Ch as in Charlotte	/dʒ/ Different Spelling, Same Pronunciation J as in jump Dj as in message Dg as in judge D as in soldier
/Z/ Different Spelling, Same Pronunciation S as in jeans Z as in zoo X as in xylophone	/ʒ/ Different Spelling, Same Pronunciation S as in obscure Sj as in occasion G as in large J as in figure X as in luxury	/tʃ/ Different Spelling, Same Pronunciation Ch as in church T as in picture

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EW S & Z Strategy

- Evaluation – Use Screening Kits
- Interpret the Evaluation results
- Kinesthetic Awareness – client must have an awareness of tongue in mouth.
- Phonemic Awareness
- Begin Remediation – use the exploded /t/

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EW S & Z Strategy

- /ts/ tactile and visual cues
- Final /ts/
- /ts/ phrases and sentences
- Alveolar Phonemic production zone - /s/ and /ns/
- /s/ tactile and visual cues
- Medial and final /s/
- Initial /s/

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EW S & Z Strategy

- Follow remediation hierarchy
- 14-17. Don't forget /z/ - students may devoice. (voiced consonant rule)
- Initial /s/ blends
- Final /s/ clusters
- Structured conversation
- Review and reinforcement.

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The Entire World of S & Z / SH & CH Strategy

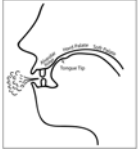
Evaluate and initially treat articulation disorders affecting sibilant consonants by using target phonemes that are in the approximate phonemic production zone.

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Sh, Ch, J & Zh

- Produced at the palato-alveolar region. Just slightly posterior of S & Z production area.
- [sh] and [ch] are not voiced.
- [zh] and [j] are voiced.



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Sh & Zh

- /ʃ/ as in **Sh**ip and /ʒ/ as in **meas**ure.
- Described as “continuant fricative sibilants” for the steady, friction produced hissing sound emitted.
- There are very few [zh] words and no words in the initial position in English.

Ch & J

- /tʃ/ as in **ch**op and /dʒ/ as in **jud**ge
- Traditionally called “affricates” since airflow is completely stopped at some point.
- The /tʃ/ is a combination of /ʃ/ and /t/.
- The /dʒ/ is a combination of /ʒ/ and /d/.

The Spring Words of SH & CH Screening Form

Sh, Ch, J & Zh Remediation

- Three basic outcomes:
 - All four target phonemes are misarticulated.
 - Ch and J are misarticulated.
 - Sh and Zh are misarticulated.

Approximate Phonemic Production Zone Elicitation Techniques

Screening Outcome	Techniques	Example
01. All the sibilant sounds are misarticulated. /ʃ/, /ʒ/, /tʃ/, /dʒ/	1. T Final + Y Initial ⇒ CH Medial 2. S Final + Y Initial ⇒ SH Medial	get you ⇒ gethoo kit you ⇒ kitshoo
02. /ʃ/ and /tʃ/ are misarticulated. /ʒ/ and /dʒ/ are produced correctly.	1. T Final + Y Initial ⇒ CH Medial 2. T Final + SH Initial ⇒ CH Medial 3. N Final + SH Initial ⇒ CH Medial 4. N Final + CH Initial ⇒ CH Medial 5. N + CH Final ⇒ CH Final 6. D Final + Y Initial ⇒ J Medial 7. D Final + J Initial ⇒ J Medial 8. J Final + J Initial ⇒ J Medial	get you ⇒ gethoo kit you ⇒ kitshoo net ship ⇒ netshoo net ship ⇒ netshoo net ship ⇒ netshoo net ship ⇒ netshoo net ship ⇒ netshoo net ship ⇒ netshoo net ship ⇒ netshoo
03. /ʃ/ and /ʒ/ are misarticulated. /tʃ/ and /dʒ/ are produced correctly.	1. S Final + Y Initial ⇒ SH Medial 2. CH Final + SH Initial ⇒ SH Medial 3. SH Final + SH Initial ⇒ SH Medial	kit you ⇒ kitshoo fish ship ⇒ fishshoo fish ship ⇒ fishshoo

Case Study #2

- Sharon Miller is five year-old kindergarten at Carrillo Elementary School.
- SLP determines she misproduces [sh], [ch], [j] and [zh]

Student Name: **Sharon Miller**
Screening by: **Christi Rose** on 05/09/07
Screened by: **C. Rose**

The Spring Words of SH & CH Screening Form

Case Study #2

- Sharon's Therapy Strategy: Determine Stimulability
 - Test stimulability for [ch] by combining /t/ + /j/ as in “bet you” or “get you.”
 - Test stimulability for [sh] by combining /s/ + /j/ as in “kiss you” or “place you.”
- Sharon shows stimulability for [sh] because her “kiss you” is close to [sh]

S Final + Y Initial Elicitation Phrases to Produce SH Medial

Name: _____ Date: _____

Directions: Use this worksheet to practice all 12 phrases. Say each phrase slowly. Repeat the first 4 for the remainder of the day. Mark the speechworksheet blank as appropriate for correct production. Mark the speechworksheet.

Phrase	Speech	Homework
1) Kiss you.	_____	_____
2) Miss you.	_____	_____
3) Bless you.	_____	_____
4) Unless you.	_____	_____
5) Address you.	_____	_____
6) Place you.	_____	_____
7) Face you.	_____	_____
8) Embrace you.	_____	_____
9) Rebrace you.	_____	_____
10) Advance you.	_____	_____
11) Romance you.	_____	_____
12) Charming you.	_____	_____

SH Medial Sentences

Name: _____ Date: _____

Directions: Use the picture to create a sentence with the sound [sh] in the medial position. Write the sentence on the line. Mark the [sh] with a checkmark in the appropriate column.

Picture	Write the sentence	Checkmark	Homework
Michelle went to the market.	_____	_____	_____
Kristin washed the car.	_____	_____	_____
Alice likes the...	_____	_____	_____

SH Final + SH Initial Sentence Pairs

Name: _____ Date: _____

Directions: Use the picture to create a sentence with the sound [sh] in the final and initial positions. Write the sentence on the line. Mark the [sh] with a checkmark in the appropriate column.

Use ability to produce [sh] medial to create [sh] final and [sh] initial

Sentence	Checkmark	Homework
1A) We use Spanish shampoo.	_____	_____
1B) Shampoo that is Spanish works the best.	_____	_____
2A) Push shirts in the wagon.	_____	_____
2B) Shirts needs a push in her wagon.	_____	_____
3A) We found a starfish shirt.	_____	_____
3B) We found the shirt from the starfish.	_____	_____
4A) Bill put on a fresh shirt.	_____	_____
4B) The shirt that Bill is wearing is clean and fresh.	_____	_____
5A) The shirt shop is where we buy the horse supplies.	_____	_____
5B) That shirt is where we bought the red shirt.	_____	_____
6A) We like to push shirts.	_____	_____
6B) The shoes needed brown shirts.	_____	_____

Case Study #2

- After working on [sh] medial address [sh] initial and final positions.
- Remediate [ch] using [sh].
Use [t] + [sh] initial or [n] + [sh] initial combinations.

T Final + SH Initial Elicitation Phrases to Produce CH Medial

Name: _____ Date: _____

Directions: Use the picture to obtain production of all medial. Use each phrase several times before and after production. Mark the appropriate column.

Phrase	Checkmark	Homework
1) Bright shirt.	_____	_____
2) Night shirts.	_____	_____
3) Cut short hair.	_____	_____
4) Hat shirt.	_____	_____
5) Best shirt!	_____	_____
6) Cool shirt.	_____	_____
7) Night shirt!	_____	_____
8) Eat shrimp.	_____	_____
9) Best shirt.	_____	_____
10) Most shrimp.	_____	_____
11) Miss shrimp.	_____	_____
12) Eat shrimp!	_____	_____

Sh, Ch, J & Zh Remediation

- Each action uses combination clusters to approximate the target sounds.
- For example to obtain a ch medial sound, combine a /t/ final word with /j/ initial word such as "get you"
This produces a ch medial sound.

Don't be compelled to remediate in any particular order

EW Sh & Ch Strategy

Similar to Strategy for S & Z

1. Evaluation – Use Screening Kits
2. Interpret the Evaluation results
3. Kinesthetic Awareness – client must have an awareness of tongue in mouth.
4. Phonemic Awareness
5. Begin Remediation – using intervention targets

EW Sh & Ch Strategy Continued

6. Use auditory, tactile and visual cues.
7. Work on each word position (initial, medial, final). Don't be concerned with order.
8. Follow remediation hierarchy (isolation to conversational speech.)
9. Practice conversational speech.
10. Review and reinforcement.

Summary

Use the approximate phonemic production zone assists to facilitate proper production of target sounds.