Therapy Activities for Improving Speech Production in Children with Childhood Apraxia of Speech (CAS)

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The Speech Sound Skills Hierarchy

- Use the hierarchy on the following page to help you come up with ideas of what to target in therapy
- Children may be working in more than one level at once. Also, children may not take these levels in order. Use this as a framework but please customize it to the needs of the child you're working with

Level	What it Looks Like	What to Work On
1. Imitating Actions	Child is unable to imitate speech sounds.	Build trust and motivation to imitate actions, start with whole body and move toward mouth
2. Functional Sounds, Sound Effects, Vocalizations	Child is able to imitate actions but unable to imitate or produce sound combinations	Increasing imitation and production of sound effects, functional sounds (like mmm for eating), and vocalizations. Pair sounds with actions and praise any attempts to make sound with the mouth. Provide temptations to make the sounds.
3. Sound Combinations (CV, VC)	Child is able to imitate or produce some sounds but is not yet spontaneously combining 2 sounds, like consonant-vowel or vowel-consonant	Target words that combine one vowel with one consonant. Use these words repeatedly in functional activities at first and then transition to being able to do drill work. Start with a few words and gradually increase number of sounds used and vary their placement (before or after vowel). Once child has several CV or VC words, use one as a carrier phrase and combine together (my ball)
4. Repeated Strings of CV or VC	Child is able to combine a vowel and consonant together but is not yet producing longer utterances	String together repeated CV or VC combos, like mama or mamama. Practice transitional movements of articulators. Once comfortable, add changes to the sequence, like ma ma mow or ma mow ma mow
5. Add a Structure, Add a Sound	Child is able to say some limited structures (like CV, VC, and CVCV) but struggles to say longer or more complex words	Teach the child to say a new sound in mastered structures or mastered sounds in new structures: CVC, CCVC, CVCC, CVCV, CVCVC, CVCVC, CVCVC, CVCVC, CVCVCV, CVCVCV, etc. Combine all mastered words together in carrier phrases and simple phrases/sentences
6. Sound Accuracy in Phrases and Sentences	Child is able to produce single words of many structures with speech sound accuracy but intelligibility decreases in phrases and sentences	Start with 2-word phrases and build up. Use the same word and build it up into a sentence (seeI see catI see the cat)
7. Sound Accuracy in Connected Speech	Child is able to produce sounds correctly in simple sentences and phrases but intelligibility decreases in connected speech	Start with long sentences and automatic speech tasks, then move to open-ended questions, reading paragraphs, structured conversation, and unstructured conversation
8. High-Demands Context	Child is able to produce speech sounds correctly in connected speech unless it is in a high-demands situation, such as public speaking or unfamiliar	Teach strategies for compensating for remaining difficulties, such as receiving readings ahead of time, word attack strategies, etc.

Level 1: Imitating Actions

Start Here For...

- Children who are unable to imitate speech sounds
- Children who are not tuned in enough to work on anything during sessions
- Children who have emotional issues and are not willing to work with you on their speech during sessions

- 1. Imitate Whole Body or Gross Motor Actions
- 2. Imitate Fine Motor Actions
- Imitate Actions with Mouth or Near Mouth

Level 1: Imitating Actions, cont.

- Do a reinforcer probe and offer those preferred reinforcers if the child imitates a basic action like clapping hands, stomping feet, raising hands, etc.
- Take pictures that represent the actions you want the child to do and print them on cards. Have the child draw one card from a bag and do that action.
- Make a movie on your phone where the child is your shadow and imitates what you do (do it in reverse as well)
- Set up an obstacle course and run through it with the child. At each obstacle, have the child imitate the actions to get through
- Imitate actions with puppets, dolls, or toys

Level 2: Functional Sounds, Sound Effects, Vocalizations

Start Here For...

- Children who are able to imitate actions but unable to imitate or produce sound combinations (like CV, VC)
- Children who need a little confidence boost before working on sound combinations (this could be mixed in)

- Increase imitation and production of sound effects, functional sounds (like mmm for eating), and vocalizations.
- Pair sounds with actions and praise any attempts to make sound with the mouth.
- Provide temptations to make the sounds.

Level 2: Functional Sounds, Sound Effects, Vocalizations, cont.

- Play with vehicles and make engine sounds (or sirens)
- Feed puppets or stuffed animals and have them make exaggerated "mmmm" noises
- Have the child request pieces to an animal puzzle by making that animal's noise (reduce complex noises down to one sound, like "eee" for monkey)
- Encourage the child when he makes sounds along with gestures/AAC to communicate (like grunting or making noise with the mouth while pointing to something)
- Play bowling and make a specific sound every time you roll the ball ("ooohhh")
- Go on the slide or swing and say "eee" as you go down
- Shoot targets with a dart gun and make a simple shooting sound with each shot (like "oo")

Level 3: Sound Combinations (CV, VC)

Start Here For...

- Children who are able to imitate or produce some sounds but are not yet spontaneously combining 2 sounds, like consonantvowel or vowel-consonant
- Children who are doing some sound combinations on their own but can't say very many (or enough to communicate much)

- Target words that combine one vowel with one consonant. Use these words repeatedly in functional activities at first and then transition to being able to do drill work.
- Start with a few words and gradually increase number of sounds used and vary their placement (before or after vowel).
 Once child has several CV or VC words, use one as a carrier phrase and combine together (my ball)

Level 3: Sound Combinations (CV, VC), cont.

List of Possible Words to Target:

- Up
- Go
- No
- Hi
- Wee
- In
- Out
- Out
- On
- Off
- Hay
- Me
- My

- You
- Key
- Knee
- Shoe
- Cow
- COV
- Boy
- Bee
- Paw
- Saw
- Toe
- Tie
- Bow

- Pie
- Eat
- Egg
- Ice
- Ouch
- Ick

Pick one word to target per activity and design an activity that will allow multiple repetitions of that single word over and over again. Accept approximations at first and gradually expect more accurate attempts.

Level 3: Sound Combinations (CV, VC), cont.

- Get some sort of a riding toy like a bike or a swing and stop the child until he says "go" again
- Throw small objects up onto a higher surface (like a table), each time, have the child say "up" to indicate he wants another thing to throw up
- Put coins in a piggy bank and have the child say "in" to get each coin to indicate he wants to put it in
- When taking turns with something the child loves, have the child say "me" to get his turn each time
- Cut a hole in the mouth of a sock puppet and feed him small play food or beads. Have the child say "eat" to get each item that he wants to feed the puppet

Level 4: Repeated Strings of CV or VC

Start Here For...

- Children who are able to combine a vowel and consonant together but are not yet producing longer utterances
- Children who are doing some CV, VC, and CVCV combinations on their own but can't say very many (or enough to communicate much)

- String together repeated CV or VC combos, like mama or mamama.
- Practice transitional movements of articulators. Once comfortable, add changes to the sequence, like ma ma mow or ma mow ma mow

Level 4: Repeated Strings of CV or VC, cont.

Possible Target Words:

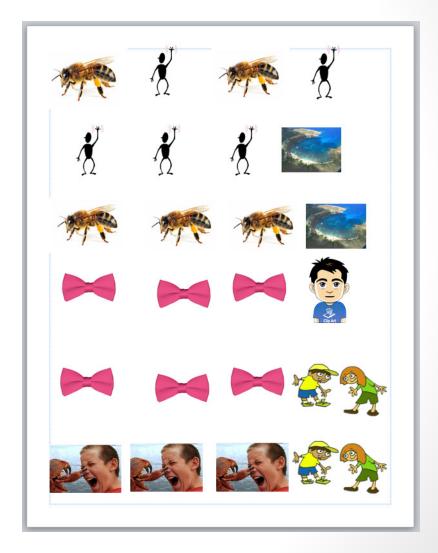
- Mama
- Dada
- Meme (grandma)
- Papa (grandpa)
- Yo-yo
- Names, repeat the first syllable of two-syllable names, like "Momo" for "Mona"
- Haha

Target these in ways similar to the last section by setting up one activity for each.

For names of people or family members, print out pictures of the people and create crafts or activities that require moving the people around or gluing them to paper.

Level 4: Repeated Strings of CV or VC, cont.

- Sequence words that the child can do together to work on articulatory transitions (the same word repeatedly or alternating two words together)
- String together several of a word that the child can say and then add a word that the child can't say to the end that only varies by one sound (bow, bow, bow, boy)



Level 5: Add a Structure, Add a Sound

Start Here For...

- Children who are able to say some limited structures (like CV, VC, and CVCV) but struggles to say longer or more complex words
- Children who are able to use some sounds in CV, VC, and CVCV structures but not very many

- Teach the child to say a new sound in mastered structures or mastered sounds in new structures: CVC, CCVC, CVCC, CVCV, CVCVC, CCVCV, CVCCV, CVCCVC, CVCCVC, CVCVCV, etc.
- Combine all mastered words together in carrier phrases and simple phrases/sentences

Level 5: Add a Structure, Add a Sound, cont.

- Increase vowels by sequencing pictures together that start with the same consonant and change the vowel, like "boy, bee, bay, bow, bow", etc. Lay the cards in a row and have the student say the sequence.
- Increase consonants by using the same vowel and changing the consonant, like "me, tea, key, pea, we, see"
- Increase structures by taking a known word and adding a sound like, "key...keep, pea...peep, we...weep"
- Create a worksheet by photocopying your artic cards in pairs or sequences like this and have the student say all words on the worksheet one time through before getting to take a turn in a game or activity. Send home as homework, too!
- Or, print out just the pictures and have the student glue them on during the session and take home as homework. Practice as you glue!

Level 5: Add a Structure, Add a

Sound, cont.







Level 6: Sound Accuracy in Phrases and Sentences

Start Here For...

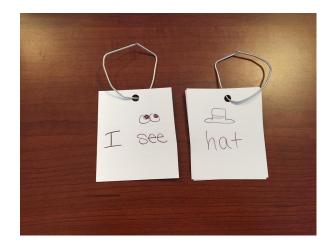
 Children who are able to produce single words of many structures with good speech sound accuracy but intelligibility decreases in phrases and sentences

Therapy Targets:

 Start with 2-word phrases and build up. Use the same word and build it up into a sentence (see...I see...I see cat....I see the cat)

Level 6: Sound Accuracy in Phrases and Sentences, cont.

- Create worksheets similar to the previous section where you provide the pictures and they glue them on, but this time, build sentences, like "see..(next line)... see... see cat... see the cat"
- Use one carrier phrase and fill it with different words that the child has mastered, like "I see bat, I see cat, I see hat, I see mat". Use flip books if you have them or make your own.



Level 7: Sound Accuracy in Connected Speech

Start Here For...

 Children who are able to produce sounds correctly in simple sentences and phrases but intelligibility decreases in connected speech

Therapy Targets:

Start with long sentences and automatic speech tasks,
 then move to open-ended questions, reading paragraphs,
 structured conversation, and unstructured conversation

Level 7: Sound Accuracy in Connected Speech, cont.

Therapy Activities (work on speaking clearly in tasks with increasing complexity, don't move on until the previous level is clear)

- 1. Have the child describe pictures using full sentences ("the girl is walking her dog in the park")
- 2. Have the child complete automatic speech tasks like saying the pledge of allegiance or the months of the year
- 3. Have the child answer open-ended questions like "tell me about your last birthday party"
- 4. Have the child read a short paragraph
- 5. Have a conversation with the child about a specific topic with the expectation that you will be listening for his speech sounds
- Listen for correct speech sounds in conversational speech and correct using feedback as needed

Level 8: High-Demands Context

Start Here For...

 Children who are able to produce speech sounds correctly in connected speech unless it is in a high-demands situation, such as public speaking or unfamiliar multi-syllabic words

Therapy Targets:

 Teach strategies for compensating for remaining difficulties, such as receiving readings ahead of time, word attack strategies, etc.

Level 8: High-Demands Context, cont.

- Help student to identify and memorize the list of situations in which he is likely to have trouble
- Brainstorm strategies with the student that can be used in those different situations
- Help the student create a list of classroom modifications or accommodations that will help him and help him share it with his teachers
- Teach word attack strategies for multi-syllabic, long, or unknown words
- Teach the child how to advocate for himself by saying "I have a condition called apraxia..." that will help him get what he needs and stand up to bullying

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