Cycles Approach to Phonological Disorders

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What is Cycles?

Time periods during which ALL primary

Phonological patterns in need of remediation

are facilitated in succession.

Why target patterns?

How many of you have tried to target the individual sound only to have the child exhibit another error pattern somewhere else in the word?

If a child fails to produce /s/, this may be the result of different circumstances in different words. It may be omitted at the end because the child deletes all *final consonants*, or it may be omitted preceding another consonant because of *omission of stridents* in consonant clusters. It may also be replaced by /t/ in the initial position because the child exhibits *stopping*.

So, teaching /s/ as an isolated unit when one or more of these conditions exist, does not ensure its correct use in all of these situations and does not facilitate broader learning that results from targeting a pattern.

Primary patterns

1) **Syllableness**
   Ability to produce correct number of syllables in multi-syllabic words.

2) **Consonant singletons**
   Structure of the word (CV, VC, CVC, VCV), not the specific consonant is the target pattern. Words with /m, n, p, b, t, d, w, h/.

3) **Velars**
   These are /k/ and /g/ sounds. **If not stimulable**, may need to be delayed until second or third cycle. Do NOT drive yourself crazy with them. They will come in when the child is ready!

4) **Alveolars**
   The /t/ and /d/ rarely need to be targeted unless they are absent. If so, do them in Cycle One.

5) **Stridents and Two Consonant Sequences (Clusters)**
   Stridents are the noisy sounds /s, z, ʧ, ʃ, f, v, ʤ, ʒ/ **NOTE:** /θ, ð/ **phonemes are not strident sounds.** Consonant sequences and stridents are usually deficient in unintelligible children and they are addressed together. Voiceless strident /s/ is practiced in two-consonant sequences (/ts, sp, sn/ etc.) This facilitates generalization of stridency to singletons /s, z, f, v, ʧ, ʃ, ʤ, ʒ / and **IT REALLY WORKS!**

6) **Liquid /l/**
   Should be targeted in Cycle One. Your main goal is to suppress the gliding process (no /w/)...you are not looking for a perfect /l/. If they are having trouble with /l/, have them produce it with the tongue between the teeth touching the top lip and shape from there.

7) **Liquid /r/**
   Should also be targeted in Cycle One. Only trying to suppress the gliding process, so do not expect a perfect /r/. Have them try to smile when they say it and you should hear an approximation that will not be a /w/, if you can get them to keep their lips from touching.

NOTE: You are **not** trying to get /ɚ/. Initial /r/ does not have to be and most likely will not be /ɚ/. If the tongue is in the right position and it's not a /w/, you have an /r/ approximation that is acceptable (this is also true with /r/ only articulation kids).

Secondary patterns

Secondary patterns are perhaps the most frustrating aspects of phonological delay as they will typically make clinicians think children are Apraxic rather than Phonological. Most children with phonological delay will evidence some of the following issues in their speech. Voicing errors and distortion of vowels, while common in Apraxia, are **very** common in phonological delay and most children exhibit them. Apraxia experts caution clinicians to look for the 'common' disorder first, (phonological delay) rather than the 'less common', (Apraxia). Apraxia is VERY hard to diagnose and is subjective in nature. (See Apraxia references at the end of this presentation).

1) **Voicing Errors**
   Voicing errors are very common in phonological children and typically remediate themselves after the primary patterns are corrected.

2) **Distorting vowels**
   Like voicing errors, distortion of vowels is typical in phonological children and does not typically need to be targeted.

3) **Singleton Stridents**
   The individual Strident sounds /s, z, f, v, ʧ, ʃ, ʤ, ʒ/ do not need to be targeted until all the primary patterns have been remediated.

NOTE: If the child has no strident sounds, is struggling with s-blends, and does not have /f/, I will target /f/ in singleton form (as does Hodson), usually in the final position first and then initial. It helps with stridency and normalizes errors.

4) **Glide Sequences**
   Sequences that have a consonant + a /j/ sound in the word /mjuzik/.

5) **Three Consonant Sequences**
   Sequences /str/ and /skr/ will typically correct without intervention.

Most secondary patterns take care of themselves as a child's phonological skills improve. Any difficulty in these areas after the above patterns have been remediated will need to be addressed. See *Easy Does It* for ways to facilitate these patterns.

Phonological Disorders vs. Apraxia

There is a lot of debate in this field regarding Apraxia and phonological delays. This next slide is a statement from ASHA that may help (Page 14). as well as the Apraxia article.

Let's quickly review the study

We CAN diagnose Apraxia, however, most experts warn that you must look for the common disorder first, phonology, before the uncommon, Apraxia.

APRAXIA ABSTRACT

- ***Developmental Apraxia of Speech*: *Determiners of Differential Diagnosis*** Author Davis Barbara Lockett ; Jakielski Kathy J.; Marguardt Thomas P. Affiliation Department of Communication Sciences and Disorders, College of Communication, University of Texas at Austin Source Clinical Linguistics & Phonetics, vol. 12, no. 1, pp. 25-45, 1998 ISSN 0269-9206

Abstract:

Developmental apraxia of speech is a neurologically based disorder in the programming of sequential articulatory movements. This definition, based purely on motoric limitations, is fraught with controversy concerning etiology, clinical manifestations, treatment, & even identification of the disorder as a separate clinical entity. An understanding of developmental apraxia depends on consistent utilization of a group of symptoms for diagnosis so that data-based results can be used to generate inferences about the disorder. Results from students of children who are diagnosed with developmental apraxia, but who may not be apraxic, complicates application to theories attempting to account for observed symptoms. A longitudinal study of children with developmental apraxia of speech has been under way at the U of Texas at Austin since 1985. Of 22 children referred as apraxic, a diagnosis has been confirmed in only 4. Phonological & language evaluation data for 5 clients evaluated during this project are presented. One was diagnosed with developmental apraxia of speech. Each of the other 4 subjects were diagnosed with speech &/or language disorders without the presence of developmental apraxia of speech. Diagnostic results for all 5 are presented to illustrate critical features for differential diagnosis of developmental apraxia.

Traditional Artic

1. Use lists of words for drill usually 30-60 words
2. Target each sound individually for months or longer until mastery
3. Target each error sound in every position
4. Target phrases, sentences, reading, conversation
5. Working toward mastery
6. You have to work up to stimulability if it isn't there
7. Does not generalize to other positions or sounds. Only corrects the sound you are targeting and difficult to generalize to conversation
8. Can take MANY years depending on the severity of the articulation delay
9. Have to wait until 7-8 to target /r/ which can lead to lingering /r/ difficulty in MS and beyond

vs.

Cycles

1. Use 5-6 words for drill per target sound
2. Target sounds within each pattern changing sounds weekly regardless of mastery
3. Target specific error sounds within patterns and not in every position
4. Do not have to target phrases, sentences, reading, and conversation with one exception
5. Working toward exposure for increased intelligibility
6. Child has to demonstrate stimulability to target a sound or you skip it, but there are two exceptions
7. Targeting patterns generalizes to other positions/sounds and CONVERSATION!
8. Typically 1-2 years for remediation (may be longer for more involved cases, but intelligibility should increase)
9. Allows you to target /r/ early, enhancing development and remediation in elementary school

Hodson's Assessment of Phonological Processes-3 (HAPP-3)

PRESCHOOL PHONOLOGICAL SCREENING RECORD FORM

HAPP-3 Screening Form.ppt

(This test protocol is NOT in your handout)

This test does have a screening. If you're not familiar with phonology, it's a good way to begin looking for phonological delays with your kids. Once you start using the test and/or Cycles, phonological delay will be the easiest disorder to identify just by speaking with a child.

In the screening, you have them say 12 words (from pictures) and record accordingly on the form. It will tell you, based on the child's score, if you need to test further with the entire deviations form.

I have color pictures for the HAPP-3, and HAPP-3 Screening available on my website at www.expressionsspeech.com

Phonological Development
THE GRADUAL ACQUISITION OF THE SPEECH SOUND SYSTEM

Elimination of Phonological Processes
Phonological processes are typically gone by these ages (in years ; months)

PHONOLOGICAL PROCESS	EXAMPLE	GONE BY APPROXIMATELY
Context sensitive voicing	pig = big	3;0
Word-final de-voicing	pig = pick	3;0
Final consonant deletion	comb = coe	3;3
Fronting	car = tar ship = sip	3;6
Consonant harmony	mine = mime kittycat = tittytat	3;9
Weak syllable deletion	elephant = efant potato = tato television =tevision banana = nana	4;0
Cluster reduction	spoon = poon train = chain clean = keen	4;0
Gliding of liquids	run = one leg = weg leg= yeg	5;0
Stopping /f/	fish = tish	3;0
Stopping /s/	soap = dope	3;0
Stopping /v/	very = berry	3;6
Stopping /z/	zoo = doo	3;6
Stopping 'sh'	shop = dop	4;6
Stopping 'j'	jump = dump	4;6
Stopping 'ch'	chair = tare	4;6
Stopping voiceless 'th'	thing = ting	5;0
Stopping voiced 'th'	them = dem	5;0

Hodon's Assessment of Phonological Processes-3 (HAPP-3)

Major Phonological Deviations Analysis Form

Do NOT let the size of this form overwhelm you!
There is space for transcriptions and analysis of 50 words

This form has three sections:

SECTION 1: IPA Transcriptions

Transcribe the child's productions here. You will notice the vowels are missing in the target words. You can find the expected vowels on the back of the Comprehensive Phonological Evaluation Record Form. You are supposed to transcribe the words here and then transfer them to the other form, but who has time for that?

SECTION 2: Word/Syllable Structures

COUNT *OMISSIONS ONLY* IN THIS SECTION

1) **Syllable Reduction:** **"baby"** = "ba". Indicate the number of syllables missing with checkmarks. Some words have up to 6 syllables.
2) **Consonant Sequences:** Scored when any consonant in sequence is OMITTED (not substituted b/c they are aware of the sound needing to be there it just may not be the right sound i.e., bw/bl etc.). **Example**: toothbrush – /θ, b, r/ (three sounds total**).** Table separates clusters with and without stridents
3) **Prevocalic Singletons:** Scored when *initial consonant* is omitted
4) **Intervocalic Singletons:** Scored when consonant preceding a vowel in the middle of the word is omitted.
5) **Postvocalic Singletons:** Scored when final consonant deletion (FCD) occurs (do not count for vocalic /ɚ/ or blends)

SECTION 3: Consonant Category Deficiencies

Count BOTH substitutions AND omissions in this section!

EXCEPTION: Do not count substitutions of the same class strident/strident (s/ʃ), nasal/nasal (n/m). You are concerned with the pattern, not the individual sound.

1) **Liquids:** Scored for omission and/or substitution /l/ OR initial /r/ ONLY. Final /r/ is not counted and is a big change from APP-R.
2) **Nasals:** Scored for /m, n, ŋ/ are omitted and/or substituted. **Note**: /ŋ/ is not counted as a velar, only as a nasal.
3) **Glides:** Scored for /w/ and /j/ for omissions and/or substitutions. These also exists in some consonant clusters.
4) **Stridents:** Scored when the strident sound is gone. **Exceptions: /tʃ, ʤ/** and **NOT** scored for lisp.
5) **Velars:** Scored for fronting and/or omissions of /k, g/. Don't forget to score them in the blends as well.
6) **Other:** The last column is where you mark for the sounds that have no other column, (/p, t, b, d, θ, ð/). **You will mark for backing to /k, g, h/ here.**

The only way to learn to score this test is to do it!

Roderick - HAPP-3 Scoring Activity

Scoring Considerations

1) Scoring the HAPP-3 is very different from the APP-R. All the phonemes are already written in the boxes and you cross off those that are omitted and write in the phoneme above if substituted.

2) **REMEMBER:** You only count **OMISSIONS** in the first set, but you count **BOTH OMISSIONS AND SUBSTITUTIONS** in the second set.

Easiest Scoring Method

1) Complete transcription of numbers 1-24 and total each column into the **subtotal column** half-way down the page.

2) Transcribe and score items 25-50 and total each column into **subtotal column** at bottom of page.

3) Add each subtotal together and record on the Total Deviations line at bottom of page.

4) Transfer those numbers to the **Comprehensive Phonological Evaluation Record Form** under the Occurrences column. Be sure you are recording the right number on each line. The first column is for Syllables and most kids do retain syllable number, so you might not have a number for that box.

5) Under the Consonant Sequences, there are two sections: Stridents/Without Stridents and then they are totaled and written on the line under the Occurrences column.

6) All the numbers on the lines under Occurrences are totaled and entered into the box labeled **Word/Syllable Structure Omission Sum.**

7) Each number under Occurrences is then converted to a percentage and recorded on the line in the farthest right hand column. **This is where you get the percentages for the processes you need to target over 40% (over 60% for glides).**

Scoring Considerations

8) Complete the lower section of this form for Liquids (broken down into /l/ and /r/), Nasals, Glides, Stridents (broken down into anterior and palatal), Velars, and Backing

9) Again, add all the numbers on the lines under Occurrences and enter this number into the box labeled **Consonant Category Deficiencies Sum**.

10) Don't forget to convert all of your occurrences to percentages on the right hand side of the page.

11) Add the two boxes **Word/Syllable Structure Omission Sum** and **Consonant Category Deficiencies Sum** to get **Total Occurrences of Major Phonological Deviations (TOMPD)** and enter this number in the box at the very bottom of the page **AND** in the box the front of the form under the child's name. This will give you your Criterion Score which will correspond to Mild, Moderate, Severe, or Profound.

NOTE: The HAPP-3 is a normed test, but this data is only for research purposes and should not be used to place children into speech. Use the severity rating to determine placement.

If a child tests in the ***high severe/profound range*** on this test, then you have a child with an extremely disordered phonological system. It would be in the best interests of the child to order a full special education evaluation as these children tend to be poor readers and evidence other learning disabilities as well.

Determination of Targets

Based on Scores of the HAPP_3

1) **Processes that occur >40%** are typically viewed as the starting place for intervention. However, it is necessary to carefully review the child's entire inventory for potential targets since the HAPP-3 doesn't have a percentage score for alveolars. Most of these are marked in the "backing" column, but some children need to learn how to produce /t, d, n/. If alveolars are absent, Hodson recommends targeting them in Cycle One.

2) **Processes that occur 40-60%** often indicate that the deficiency exists in only one position of the word. Because of this, it is important to identify where and when these deficiencies occur and to target only those that are needed (i.e, can produce word-initial nasals, but not word-final...target only word-final.

Based on Stimulability—Things to Consider!

****A child needs to demonstrate readiness for any pattern you wish to target****

1) Velars

Velars are the most common targets **that need to be bypassed for a cycle or two** due to the child's inability to produce posterior consonants. In the meantime, you continue to use auditory, tactile, and visual stimulation until the child is ready to produce a velar and final /k/ is usually the easiest to elicit.

2) Liquid /r/ and /l/

Liquid phonemes that are targeted in Cycle One even if child is not stimulable for them. The goal here is to suppress the gliding process. Words chosen to help facilitate /r/ **will not contain** labial vowels or consonants (i.e., robe, rope, roof).

3) Assimilation

Be careful selecting target words for assimilation

a) If the child is a "fronter", you need to avoid practice words with velars in more than one position. (Easy Does it Books take care of this!)

Most Common Initial Target Patterns

SYLLABLENESS

If the child does not produce two- and three-syllable words. See Easy Does It Books or use CVCV and CVCVCV

WORD-INITIAL SINGLETON CONSONANTS

ONLY if they are lacking in CV utterances or exhibiting **Initial Consonant Deletion—Alveolars, Bilabials etc. (b, d, h, m, n, p, t/)**

WORD-FINAL SINGLETON CONSONANTS

Target **ONLY** if the child exhibits Final Consonant Deletion and then you target only the final consonants absent! Final sounds are targeted in pairs, if possible. (n, p, t, m)

NOTE: Hodson recommends **NEVER** targeting voiced final obstruents /b, d, g, v, z/, 'dz' as in judge, or 'z' as in beige

VELARS

May need to be bypassed. Targets include Initial /k/ and /g/ targeted together and final /k/.

CONSONANT SEQUENCES

You should have to target these sounds, specifically s-blends, with ALL phonological children. If s-blends are present, you might not have a phonological child!

LIQUIDS

Most kids will need initial /l/ and initial /r/.

GLIDES

Only targeted if 60% or more deficient.

ALVEOLARS

Target if the child is a "backer" or they are omitted.

SINGLETON CONSONANTS

The only one I typically target, in my Cycles, are initial /f/ and final /f/ as I have found it greatly improves stridency.

You scored the transcript and know this kid needs A LOT of help!

Now what?

The child will focus on a different phoneme (or consonant cluster)

within each pattern that is in error,

for 60 minutes per sound.

ALL of that is referred to as a **Cycle**

Length of the Cycle

The length of each cycle will depend on
1) The number of patterns that need to be targeted
2) The number of stimulable phonemes within EACH target pattern.

The term *CYCLE* is the most confusing word to most clinicians when they begin this approach. Each Cycle will contain numerous sounds. One sound is NOT a Cycle and you do not drill on each sound until mastery, you keep moving through all sounds.

NOTE: If you are working with a child that is intellectually disabled or LD, you may need to increase your focus to 90 minutes per phoneme (3 sessions per sound)

Treatment Materials

There are many good materials out there and you will need to find some that you're comfortable with. I use ***Easy Does it for Articulation—a Phonological Approach*** from Linguisystems and that's it!

1) The words are phonetically controlled which means you will not have words that will trigger assimilation tendencies ("cat" is not a good word for kids that are fronting).

2) The Materials Book has nine picture cards for every sound within each Primary Pattern AND also contains cards for Secondary Patterns if needed.

3) The Therapy Manual has 10 words/sentences for each sound that you can record into your digital recorder for auditory bombardment.

Therapy Session Components

1) Review preceding sessions production-practice words (I am not good at doing this).

2) Auditory Bombardment
Read the words/sentences associated with that days target into a digital recorder substituting their name wherever you can. If you record it once, it will be there every time you need it, even in subsequent cycles and it will save you time!

3) **Production practice cards** for this week (usually 5-6 target words carefully chosen for context)

4) Game with practice words
a) Examples of games include -- hiding cards, match, guess which card I'm holding (great for lots of practice!), toss bean bag on cards and say target, and any other made-up game you can think of.

5) **Break** -- If you have time...with 2-3 in a group, this may not be possible.

6) **Probe for next sessions target** unless you are continuing with this phoneme next time. If you're working on s-clusters and you have targeted /sm/ the last two sessions, you would need to probe to see what other s-cluster is stimulable.

7) **Repeat auditory bombardment** (same list as above)

8) **Home program** -- I have only been successful in getting a few parents to do this, but it is well worth the time and effort. You can send home the auditory bombardment word list and sentences and explain they are only to read them to the child. When the child is able to produce the production words, you can send that list home too and the child can say them to the parent one minute a day.

Parent involvement decreases therapy length by a quarter to half the time, if not more!!!!

GROUP ACTIVITY
CYCLES DESIGN

Use the Cycles Guidelines & Organizational Chart in your handout to help you set up your 1st Cycle.

RODERICK'S
Cycles Guidelines and Organizational Chart Review

:

PATTERN: Syllables

Question: Does the child maintain syllables? YES! SKIP!

PATTERN: Final Consonants

Question: Does the child add ending sounds to words (close VC or CVC)? NO!

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First Pattern of Cycle One

Target Pattern -- Word-Final Singleton Consonants
Possible Target Sounds-- final /t, n, p, m/

1) Focus on these sounds for a total of 60 minutes using 6 production practice words—three of each sound (you can obtain these from *Easy Does It* books)

NOTE: Hodson recommends **NEVER** targeting voiced final obstruents /b, d, g, v, z/, 'dz' as in judge, or 'z' as in beige.

3) If needed, you may also target another sound or move onto a another pattern. Remember, even if a sound is on the transcript, you should probe conversation for consistency. The transcript is a snapshot!

RODERICK'S Chart Review (cont.)

PATTERN: Initial Consonants

Question: Does the child mark all initial sounds? YES! SKIP!

PATTERN: Glides

Question: Does the child produce /w/ and /j/ in words? NO!
Are they 60% or more deficient? YES!

Second Pattern of Cycle One

Target Pattern – Glides
Possible Target Sounds -- /j/ and /w/

1) Use the words on the Cycles Guidelines and Organizational Chart. Try CVC. If they are too hard, try CV. If they are not stimulable with MAX cues, skip.
2) Getting one glide can help get the other! Make sure you check stimulability on BOTH sounds.

PATTERN: Singleton /f/

Question: Does the child produce /f/ in the initial and final positions? NO!

Note: It is OPTIONAL to work on these here. Hodson does not. I have found they can come in quickly and help to normalize errors, but they will only fix /f/. Working on s-blends helps with /f/ too.

Third Pattern of Cycle One

Target Pattern – Singleton Strident /f/
Possible Target Sounds—Final /f/, Initial /f/

1) I have found final /f/ is usually easier to elicit.
2) If child is NOT stimulable with MAX cues, skip it.

RODERICK'S Chart Review (cont.)

PATTERN: Velars

Question: Does the child produce initial /k/ and /g/ and final /k/ in words? NO!

Fourth Pattern of Cycle One

Target Pattern -- Velars

Possible Target Phonemes – Initial /k/, Initial /g/, Final /k/

1) I describe this as the kicking sound (got that from the Easy Does it Books). I had her flick her hand while producing this sound.

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VELARS: REMEMBER THESE SOUNDS MIGHT HAVE TO BE BYPASSED FOR A CYCLE OR TWO DUE TO THE CHILD'S INABILITY TO PRODUCE THEM. YOU CAN STILL STIMULATE THEM EVERY SESSION. I HAVE LEARNED VELARS **WILL NOT** COME IN UNTIL THE CHILD IS READY. BE PATIENT!

PATTERN: Strident Clusters (S-blends)

Question: Does the child produce final and initial s-blends words? NO!

Fifth Pattern of Cycle One

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Target Pattern – Consonant Sequences—Strident Clusters

Target Sounds -- /ts/, /ps/, /sn, sm, sp, st/

1) You will need A LOT of tactile cues here. Have them run the finger from their ear to their lips to make the snake sound. If you're working on /sp/ do the snake sound from their ear and pop the finger at the lips. They need to know when their finger touches their lips, they should be closed ready to pop. The finger moves away as the /p/ sound is produced.

RODERICK'S Chart Review (cont.)

PATTERN: Strident Clusters (Continued)

Target Pattern – Consonant Sequences—Strident Clusters

Possible Target Sounds -- /ts/, /ps/, /sn/, /sm/, /sp/, /st/

Alternate Target Sounds: /ks/, /sl/, /sk/

2) You will spend 60 minutes on each stimulable sound (**maximum of 6**) before going onto another s-cluster. Some children will not be able to produce -ts or –ps and they may need to be bypassed and added in later.

3) You will spend a long time on this pattern because of the number of possible target phonemes within the pattern. If they cannot produce a certain cluster, move on and add it in during a later cycle. Sometimes waiting just a week makes all the difference. Remember, s-clusters contributes greatly to stridency and will greatly improve intelligibility.

NOTE: Do not target /sl/, /sk/ or /ks/ if singleton /k/ or /l/ is not present in their inventory. You can however use /sk/ and /ks/ if the child is backing. They may be easier s-cluster targets.

4) These are also great for helping to correct lisps. I have had many children eliminate a lisp once we cycled through 2 times because we focused on it as well, having them keep their tongue in their mouth. One of my SLPA's also had a child correct a lateral lisp while cycling. **It doesn't have to be a focus unless you want to do it that way.**

5) Remember only pick 6 total!

6) Around Cycle 3, try to use the carrier phrase "It's a_____" where the_____ is another s-blend. This really helps generalize s-blends to conversation. This is the ONLY time you use more than 1 word in Cycles!

PLAY VIDEO

RODERICK'S Chart Review (cont.)

PATTERN: Liquids (Initial /l/ and /r/) ~ Do NOT Skip!
Question: Does the child produce initial /l/ and /r/ in words? NO!

Sixth Pattern of Cycle One

Target Pattern -- Liquids (usually the last pattern of Cycle One after all others, if needed)
Possible Target Phonemes -- /l, r/

1) See information under Primary Patterns for rationale for including these sounds. They are a must!!!! You cannot skip these sounds.
2) Remember, you are going to work on suppressing gliding to /w/. If it's not a /w/, it's closer to an /l/ or /r/.
3) Review production tips in Primary Pattern section.

Congratulations!
You have made it through Cycle 1!

Question: Were all of the ALLOWED sounds, within each pattern above, able to be elicited? **NO!**

Examine the patterns above and try to elicit any sounds that the child was not stimulable for in Cycle 1. Try ALL sounds the child could not produce. Work on them here and then move to them their respective pattern when you begin Cycle 2.

Let's review some facts about Cycle 2. These are on Page 3 of your Cycles Guidelines and Organizational Chart.

Cycle 2

This Cycle will be the same as Cycle 1.
You will repeat the same patterns and sounds.
You can use the same words OR you can increase complexity.
(i.e., Change from CV to CVC, use harder words, etc.)

What will be different about Cycle 2

- Cycle 2 should contain MORE sounds. Cycle 1 is a foundation and lays the groundwork for the child to become stimulable for
- more sounds that were previously difficult to produce.
- You will need to add in any sounds the child was NOT stimulable for in Cycle 1. For example, if the child was unable to
- produce /st/, you can attempt to add it in during this Cycle. This is true of any sounds within the primary patterns.
- You will take OUT any sounds you hear the child using in conversation. This does not typically happen after Cycle 1, but
- sometimes final sounds will start to emerge in conversational speech.
- The production practice words will be a LOT easier this Cycle. You should find you need less cueing and the percentage
- correct will be higher.
- At the end of the Cycle 2, re-administer the HAPP-3. Take out the patterns that have dropped to below 40%.
- Move to Cycle 3 and start over again.

REMEMBER

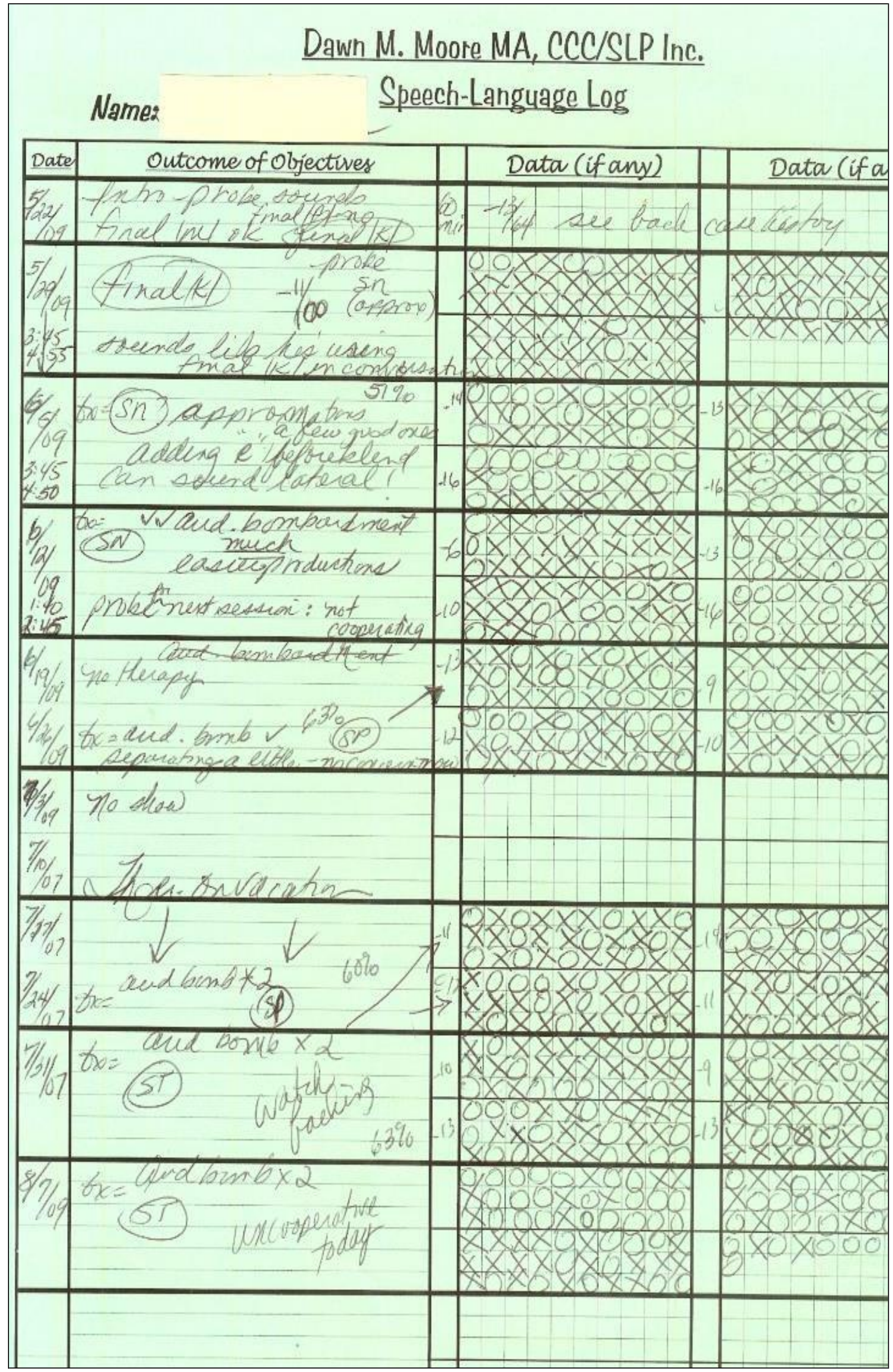
ALL **PATTERNS** THAT NEED REMEDIATED NEED TO BE TARGETED IN **EACH CYCLE.**

YOU CAN PICK AND CHOOSE SOUNDS TO TARGET IN LATER CYCLES BASED ON THE CHILD'S PROGRESS.

After Cycle 1, you can re-administer the HAPP-3 to determine if any patterns are carrying over. I usually wait until Cycle 2. If you give it after Cycle1, DON'T expect a lot of progress at this point. However, stridency, s-clusters, and final consonants get a little better from the exposure to Cycle 1. You should notice that the production practice words will be a lot easier this time around.

More severe children may required many Cycles and progress may be very limited in Cycles 1, 2, and even 3.

Do you use the Developmentally Delayed Category?


Dawn M. Moore MA, CCC/SLP Inc.

Name:

Speech-Language Log

Date	Outcome of Objectives		Data (if any)		Data (if a
5/22/09	[illegible]		see back		case history
5/29/09	Final /k/				
6/5/09	tx= SN approximations				
6/12/09	tx= SN aud. bombardment				
6/19/09	no therapy				
6/26/09	tx= aud. bomb ✓ SP				
7/3/09	No show				
7/10/09	[illegible]				
7/17/07					
7/24/07	tx= aud bomb x2 SP				
7/31/07	tx= ST aud bomb x2				
8/7/09	tx= ST aud bomb x2 uncooperative today				

Is It Childhood Apraxia of Speech or a Phonological Disorder?

According to ASHA, there is presently no validated list of diagnostic features of childhood apraxia of speech (CAS) that differentiates this symptom complex from other types of childhood speech sound disorders, including those primarily due to phonological-level delay. However, here are some general observations on how the child with CAS differs from the child with a phonological disorder (Strode & Chamberlain, 2006).

The child with CAS tends to:

- Have a unique early communication history (e.g., reduced babbling)
- Display a severe speech disorder with inefficiency in sequencing and blending sounds and syllables
- Demonstrate difficulty with increased performance load effects (i.e., the child may lose intelligibility in connected speech)
- Demonstrate inconsistency of productions
- Demonstrate more errors or changes in errors when producing the same word multiple times
- Make greater use of phonetic adjustments, such as voicing errors and nasal resonance errors
- Demonstrate speech performance that may differ from day to day or from situation to situation
- Demonstrate oral apraxia accompanying the speech disorder (Note: Many children with CAS do not have oral apraxia.)
- Demonstrate motor incoordination, awkwardness, and/or groping in the speech mechanism during speech, especially when speech programming demands are increased
- Demonstrate prosodic disturbances, such as difficulty with rate, intonation, or syllable stress
- Demonstrate a significant gap between receptive and expressive skills with near normal receptive skills at younger ages
- Make slow progress in therapy with plateaus in progress
- Demonstrate frustration about his ability to communicate
- Not necessarily follow phonological rules of development (e.g., some children may be able to produce the /l/ sound before they are able to say bilabial sounds)
- Have significant difficulty imitating speech when given auditory-visual cues alone. Children with verbal apraxia need a higher level of cueing (including multisensory cues) than children with a phonological disorder.
- Have more difficulty in stabilizing speech productions and need much more drill than children with phonological disorders

American Speech-Language-Hearing Association. (2007). *Childhood Apraxia of Speech* [Position Statement]. Available from www.asha.org/policy

Strode, R.M., & Chamberlain, C.E. (2006). *The source for childhood apraxia of speech.* East Moline, IL: LinguiSystems, Inc.

Roderick

Complete Session Breakdown for 4 Cycles of Therapy

Use this as a reference for when you cannot remember how to set up your sessions.

INDIVIDUAL CASE: RODERICK

Severity Rating
Profound

Cycle 1

1) **Postvocalic Singletons in CVC (/t, n, p, m/).** Can target two of these together, use three target words each. Do not target /m/ and /n/ together…too hard to hear difference for some kids.

2) **Glides—Initial /j/--**if glides are greater than 60% target in Cycle 1. Not stimulable for /w/ at this point.

3) **Consonant Singletons—Final /f/**

4) **Velars—Final /k/ and Initial /k/ and /g/ targeted together**

5) **Consonant Sequences/Strident Clusters—Initial /sp/---**only one stimulable for at this time.

6) **Liquid /l/-- Initial /l/--**this was present on transcript, but he wasn't using it in conversation.

7) **Liquid /r/-- Initial /r/**

Try to elicit more sounds at this point:

8) **Consonant Singletons—Initial /f/** (suddenly stimulable for it)

Targets of Cycle One

1) **Postvocalic Singletons in CVC (/t, n, p, m/).**
2) **Glides—Initial /j/**
3) **Consonant Singletons—Final /f/**
4) **Velars—Final /k/ and Initial /k/ and /g/ targeted together**
5) **Consonant Sequences/Strident Clusters —Initial /sp/**
6) **Liquid /l/-- Initial /l/**
7) **Liquid /r/-- Initial /r/**
8) **Consonant Singletons—Initial /f/**

SESSIONS FOR CYCLE 1

Session #1: Final /t/ and Final /n/--3 words with final /t/, 3 words with final /n/
Session #2: Final /t/ and Final /n/--3 words with final /t/, 3 words with final /n/

Session #3: Final /p/ and Final /m/--3 words with final /p/, 3 words with final /m/
Session #4: Final /p/ and Final /m/--3 words with final /p/, 3 words with final /m/

Session #5: Initial /j/--5 words with initial /j/
Session #6: Initial /j/--5 words with initial /j/

Session #7: Final /f/--5 words with Final /f/
Session #8: Final /f/--5 words with Final /f/

Session #9: Final /k/--5 words with Final /k/
Session #10: Final /k/--5 words with Final /k/

Session #11: Initial /k/ and /g/--3 words with initial /k/ and 3 words with initial /g/
Session #12: Initial /k/ and /g/--3 words with initial /k/ and 3 words with initial /g/

Session #13: Initial /sp/--5 words with initial /sp/
Session #14: Initial /sp/--5 words with initial /sp/

Session #15: Initial /l/--5 words with initial /l/
Session #16: Initial /l/--5 words with initial /l/

Session #17: Initial /r/--5 words with initial /r/
Session #18: Initial /r/--5 words with initial /r/

Session #19: Initial /f/--5 words with initial /f/
Session #20: Initial /f/--5 words with initial /f/

Targets of Cycle Two

1) **Postvocalic Singletons in CVC (/t, n, p, m/).**
2) **Glides—Initial /j/**
3) **Consonant Singletons —Final /f/, Initial /f/**
4) **Velars—Final /k/, Initial /k/ and /g/ targeted together**
5) **Consonant Sequences/Strident Clusters —Initial /sp/, / st, /sm/, /sn/**
6) **Liquid /l/-- Initial /l/**
7) **Liquid /r/-- Initial /r/**

SESSIONS FOR CYCLE 2

Session #1: Final /t/ and Final /n/--3 words with final /t/, 3 words with final /n/
Session #2: Final /t/ and Final /n/--3 words with final /t/, 3 words with final /n/

Session #3: Final /p/ and Final /m/--3 words with final /p/, 3 words with final /m/
Session #4: Final /p/ and Final /m/--3 words with final /p/, 3 words with final /m/

Session #5: Initial /j/--5 words with initial /j/
Session #6: Initial /j/--5 words with initial /j/

Session #7: Final /f/--5 words with Final /f/
Session #8: Final /f/--5 words with Final /f/

Session #9: Initial /f/--5 words with Initial /f/
Session #10: Initial /f/--5 words with Initial /f/

Session #11: Final /k/--5 words with Final /k/
Session #12: Final /k/--5 words with Final /k/

Session #13: Initial /k/ and /g/--3 words with initial /k/ and 3 words with initial /g/
Session #14: Initial /k/ and /g/--3 words with initial /k/ and 3 words with initial /g/

Session #15: Initial /sp/--5 words with initial /sp/
Session #16: Initial /sp/--5 words with initial /sp/

Session #17: Initial /st/--5 words with initial /st/
Session #18: Initial /st/--5 words with initial /st/

SESSIONS FOR CYCLE 2 (continued)

Session #19: Initial /l/--5 words with initial /l/
Session #20: Initial /l/--5 words with initial /l/

Session #21: Initial /r/--5 words with initial /r/
Session #22: Initial /r/--5 words with initial /r/

Session #23: Initial /sm/--5 words with initial /sm/
Session #24: Initial /sm/--5 words with initial /sm/

Session #25: Initial /sn/--5 words with initial /sn/
Session #26: Initial /sn/--5 words with initial /sn/

Administered APP-R—Final Consonants are less than 40% as are velars and Final /f/.
No longer need Patterns 1, part of 3, or 4.
Delete them from the next Cycle

Targets of Cycle Three

1) **Glides—Initial /j/**
2) **Consonant Singletons--Initial /f/**
3) **Consonant Sequences/Strident Clusters—Initial /sp/, /st, /sm/, /sn/**
4) **Liquid /l/-- Initial /l/**
5) **Liquid /r/-- Initial /r/**

SESSIONS FOR CYCLE 3

Session #1: Initial /j/--5 words with initial /j/
Session #2: Initial /j/--5 words with initial /j/

Session #3: Initial /f/--5 words with Initial /f/
Session #4: Initial /f/--5 words with Initial /f/

Session #5: Initial /sp/--5 words with initial /sp/
Session #6: Initial /sp/--5 words with initial /sp/

Session #7: Initial /st/--5 words with initial /st/
Session #8: Initial /st/--5 words with initial /st/

Session #9: Initial /sm/--5 words with initial /sm/
Session #10: Initial /sm/--5 words with initial /sm/

Session #11: Initial /sn/--5 words with initial /sn/
Session #12: Initial /sn/--5 words with initial /sn/

Session #13: Initial /l/--5 words with initial /l/
Session #14: Initial /l/--5 words with initial /l/

Session #15: Initial /r/--5 words with initial /r/
Session #16: Initial /r/--5 words with initial /r/

REEVALUATION

Administered APP-R—All targeted sounds, with the exception of s-blends are present. He started using /w/ on his own and most sounds were beginning to emerge in conversational speech.

Targets of Cycle Four

1) Consonant Sequences/Strident Clusters—Initial /sp/, /st, /sm/, /sn/

Used carrier phrase 'it's a_____" to facilitate cluster usage to conversation.

SESSIONS FOR CYCLE 4

Session #1: Initial /sp/--5 words with initial /sp/
Session #2: Initial /sp/--5 words with initial /sp/

Session #3: Initial /st/--5 words with initial /st/
Session #4: Initial /st/--5 words with initial /st/

Session #5: Initial /sm/--5 words with initial /sm/
Session #6: Initial /sm/--5 words with initial /sm/

Session #7: Initial /sn/--5 words with initial /sn/
Session #8: Initial /sn/--5 words with initial /sn/

RODERICK'S UPDATE

When he returned the next school year, he had greatly improved. He had all sounds (including vocalic /r/ inconsistently) with the exception of a few s-blends.

His first sentence was "I hate speech", which contained the /sp/!

Placed on consultative in October of that year and was dismissed at the end of the year.

The only sound error was 'ch', but that appeared to be coming in for him.

Started Therapy 4/04

Completed Cycles 10/05

Dismissed 4/06

BOOKS & MATERIALS

1) ***Targeting Intelligible Speech*** , Second Edition, Hodson, Barbara & Paden, Elaine.

2) ***Easy Does It For Articulation: A Phonological Approach*** (2 books) available from Linguisystems ($50). Comes with a handy CD-Rom for printing pictures on cardstock!

3) Hodson, B. (2007). ***Evaluating and enhancing children's phonological systems: Research and theory to practice***. Greenville, SC: Thinking Publications -University. (Follow-up to *Targeting Intelligible Speech*)

RESEARCH ARTICLES

1) Lawrence D. Shriberg, Dorothy M. Aram, **and** Joan Kwiatkowskl, ***Developmental Apraxia of Speech: II. Toward a Diagnostic Marker***. Journal of Speech Lang Hear Res, Apr 1997; 40: 286-312.

2) ***Treatment Efficacy: Functional Phonological Disorders in Children*** . Juidith Gierut. Journal of Speech Lang Hear Res, Feb 1998; 41: S85 -S100.

3) ***Developmental apraxia of speech: Determiners of differential diagnosis*** . Clinical Linguistics & Phonetics Volume 12, Issue 1 January 1998, Pages 25 -45

4) Clinical Application of Two Phonologically Based Treatment Procedures
Ann A. Tyler, Mary Louise Edwards, and John H. Saxman, J Speech Hear Disord 1987 52: 393-409. http://jshd.asha.org/cgi/reprint/52/4/393

5) ***Phonological/Traditional Approaches to Articulation Therapy: A Retrospective Group Comparison.*** Klein, Edward S., University of Utah . Language, Speech, and Hearing Services in Schools Volume 27 October 1996, Pages 314 -321

6) Is it Childhood Apraxia of Speech or a Phonological Disorder?
http://www.linguisystems.com/pdf/LinguiSystems -Apraxia.pdf

7) GREAT FREE INFORMATION HERE!
http://www.linguisystems.com/freedownloads.php

MY WEBSITE: WWW.EXPRESSIONSSPEECH.COM IS WHERE YOU WILL FIND THE COLORED PICTURES FOR THE HAPP-3 TEST AND SCREENING AS WELL AS MANY OTHER FORMS AND LOTS OF OTHER INFORMATION.

WHAT TO USE FROM THE *EASY DOES IT* BOOKS

We had some confusion here about what pictures to copy and cut out. Because of this, I have included the page numbers of the materials books that you will want to copy 4 times each (if you want to play match and go fish etc.). You will need to cut out the nine pictures on each page, write on the back of each card what the target is (example: final /k/) for later reference, and then laminate them. It takes a while to make the materials, but it's worth it if you really get into using the program. And since these cards are all I use for phonology and I have 14 kids, I use them a lot! Please see the page numbers below:

THE MAIN PAGES YOU WILL USE WILL BE PAGES 25, 26, 28, 31, 34, 35 , 36, 39, 40, 41, 42, 44 THROUGH 54, 56, 63, 64, 80. DON'T MAKE THE SAME MISTAKE I DID AND COPY THE WHOLE BOOK B/C YOU WON'T USE MOST OF THOSE TARGETS. YOU DON'T NEED TO CYCLE THROUGH /l/ WITH VELARS OR USE EVERY TARGET THEY HAVE IN THE BOOK. I HAVE ONLY TARGETED INITIAL /L/ AND /SL/ AND I HAVE YET TO NEED TO ANYTHING MORE THAN THAT. IF YOU NEED MORE LATER, YOU CAN COPY IT LATER ☺

IMPORTANT: You will only want to use 5-6 target words per session as this is the recommendation from Hodson. Additionally, you will want them to be the easiest words to say. For example, with /sp/, you would want to pick: spin, spot, spy, spade, spoon (or "speed" since "spoon" might be too hard). You will want to avoid the word "sport" if they cannot say /r/ because it will be too hard at first. I will usually change the words as we go on through more Cycles. If they said the above words for the first two Cycles and they are doing really good with them, I might change a few words out for harder words in Cycle 3 and 4 if they still need to work on them. It's just another way to see if they are progressing!

AUDITORY BOMBARDMENT

You can purchase a digital recorder at Walmart for about $40. They are set up the same way your computer stores files. You will have file folders (between 1-4) and within each folder you can store sometimes up to 200 files. I then use the THERAPY manual of *Easy Does It* books and I read the word and sentences associated with whatever target that child is working on. So if Sarah is working on final PS (I have always used 1, 2, 3 to indicate initial, medial, final), I read those words and sentences into the recorder and I substitute her name in where ever I can**. That makes these sentences hers alone and they love hearing their name on tape!!** After this, on a piece of lined paper I write "Folder 1" at the top and then (the numbers represent initial1 and final 3):

1) Sarah PS3
2) Chris K1 G1
3) Brittany SP

Now you can do this on your PHONE! I have the Smart Voice Recorder on Android. Who has one for Apple?

Where the number represents the file that I need to select to hear their sentences again. The nice thing about digital recorders is the sentences are always there and you can go back and use them for future cycles without having to fumble around with tapes. There is no rewinding or anything either. Since you would do the auditory bombardment at the beginning and end of every session, you will get a lot of use out of the recorder and the sentences. I try to record the sentences before the session, but if I forget, I just take the first 3 minutes and do it while the kids are being quiet and then I have them listen. I cannot stress the importance of auditory bombardment enough. Hodson talks about it a lot in her book and the research shows you will achieve greater success using it during therapy.

MY FAVORITE GAME

I give the children 5 cards (carefully selected to be the easiest to produce) and then I hold all the copies of those cards all mixed up. They have to then pick a card by pointing to it or saying it, if they know it. You will need to model a lot in the beginning and fade it out as you go along. They will each take turns guessing which card is on the top of your pile. If they guess correctly, you give them the card and they can put it on top of the one they have and then they have to keep guessing b/c there are three cards for every one they have (if you made four copies of each sheet). Once they get all the cards, you can have them turn them into you and they will continue guessing the cards that are left. You should be able to get done with 5 cards in a single session, even with two or three children. Don't forget to do auditory bombardment at the beginning and the end of the session.

SOME FINAL THOUGHT/NOTES

As I continue to work with my children and the new children I seem to get everyday on my caseload with phonological delays, I always wonder if I'm doing the right thing…especially when progress is slow. However, we all need to remember these children have a lot going on with their sound systems and that while progress may be slow for a while, we are doing more with this approach because we are targeting the WHOLE sound system (at least primary patterns). We also do not target phrases, sentences, or conversation like traditional articulation. We are focused on the word at its most simple level and correct production at that level. **Once you read her book and go through the case studies you will realize the goals for phonological therapy are not the same as traditional articulation. We are not looking for mastery, but carryover and increased intelligibility.** Amazingly enough, mastery does emerge with this program and the children continue to amaze me everyday with the carryover they have…sometimes after only targeting a sound during 1 Cycle! However, there are the children I still worry about and think, "They are not getting any better". Whenever I start feeling this way, I get out Hodson's book and read her case studies in the back. I then begin to compare the amount of hours and type of therapy her children were receiving and noticed some stark differences:

1) Her children were usually seen one on one for 45 minutes to 1 hour.

   I don't have the luxury of seeing my children alone and I can only see them for 30 minutes at a time.

2) One of her profound children received 44 hours of direct intervention.

   When I added up a profound child's actual therapy time, it totaled 49. 5 hours, but that was in a group of three! It's harder in the school system to see the progress as fast b/c of absences, school activities, and vacations…not to mention summer break, BUT YOU DO SEE IT!!!!!

3) I also keep forgetting that while most of her children did not need more than 5 Cycles, that no two children are the same and that 5 Cycles may not be enough for profound kids in the schools.

The most interesting part of this story is that while thinking about all of this and questioning progress, a child came in one day and made a final /k/ sound without the tongue depressor or any other physical contact!!! After two sessions with this, she was able to produce an initial /k/! It is moments like this that show me how effective this program truly is and that right when you start questioning yourself and the child's progress, they seem to advance to a whole new level!

Bottom line--DON'T GIVE UP!

See below for a summary of some key points…

SOME KEY POINTS TO REMEMBER

1) DO target each pattern for a minimum of 2 hours and a maximum of 6 hours. However, not all patterns will have a full 2 hours worth of sounds to target.

2) DO target each sound within a pattern for 60 minutes (there may only be one sound within a pattern or a collection of sounds within a pattern – i.e., Post Vocalic CVC words). However, with s-clusters there are 9 sounds within that pattern (sp, sn, st, sk, sl, sm, -ts, -ps, -ks). The child will not typically be stimulable for all of them and you only need to target for a maximum of 6 hours (total of 6 targets) anyway.

3) DO use auditory bombardment! It is essential!

4) For quickest results, DO place children more than once a week as I have found these placements to yield the best results—Profound children = 3x a week and Moderate-Severe = 2x a week. Not everyone can see children 3x a week. Do the best you can with your schedule. Children can be seen in groups. Mine are typically groups of three.

5) DO spend entire sessions on placement and don't count it as part of the Cycle. When you start getting acceptable productions, that is part of the Cycle.

6) DO increase mentally impaired children's time to 90 minutes per sound IF they are not making progress. However, I have been able to effectively treat EMD children using the same approach (i.e., 60 minutes) I use with my speech-only children.

7) DO refer to Hodson's book (or this outline) OFTEN. Or email me your questions! **dawn@expressionsspeech.com**

8) Do only use up to 6 target words per session. If you start using more than that (i.e., Webber's artic list), you are doing articulation drill, NOT Cycles! You can add some previous cards from their last session, thereby making your targets larger in number and Hodson recommends this, but I haven't done it. Up to you….just don't drill using a list of words.

SOME KEY POINTS TO REMEMBER (cont.)

9) DO consider apraxia. However, remember to look for common, not uncommon disorders. Cycles will help apraxic children as well. Even my most profound children that I tested for apraxia did not come back as apraxic and they were able to get better with Cycles…it was just slower.

10) DO stimulate sounds you would like to work on in the future. You can do this at the end of every session using nonsense words (i.e., kay, kee, kai, koe, koo for /k/). This helps a lot with velars.

11) DO work on saying sounds in unison with the child if you cannot get them to produce them on their own. I have had this work successfully a few times when nothing else would.

12) DO target initial /r/ and /l/ in every cycle if they need them. You can even add vocalic /r/ using coarticulation (i.e., air-red). Using l-blends is also good in later Cycles if you need blend work.

13) DO target initial consonant deletion immediately IF it involves alveolars. If it's /s/, you will be able to target it indirectly by targeting blends.

14) DO tell people about what you're doing and help others learn!

15) DO use carrier phrases for blends when the child is ready.

16) DO the APP-R or HAPP-3 after every Cycle to see the progress the child is making. It will make you smile (typically anyway ☺).

17) DO let me know about your progress!

DO NOTS

1) DO NOT target voiced final sounds /b, d, g, v, z/, 'dz' as in judge, or 'z' as in beige.

2) DO NOT target /sk/ or /sl/ unless singleton /k/ or /l/ is present in inventory. There will be exceptions to this rule (i.e., child is a backer…/sk/ would be a good target).

3) DO NOT target Velars IF the child is not stimulable, MOVE ON!!!! Do not spend a lot of time here. They child will get it and in the meantime, you can work on/fix something else!

4) DO NOT forget to consider phonology when testing children….even very young. You will be very surprised how many children score high on a phonological test just when you thought you would wait for development. Substitutions are normal. Omissions are not! This is especially important when looking at children missing an entire class of sounds (i.e., liquids in all positions).

5) DO NOT give up! These children will get better with this approach much faster than with traditional articulation!

6) DO NOT be afraid to modify this approach to suit the child.

7) DO NOT be surprised if this becomes your favorite type of therapy (it is for me and my SLPA's)

IN BETWEENS

1) I do not do oral motor work with these children. It is not because I do not believe in it, it is because I have not been trained. I guess placement work, especially with some of my profound kids could be considered oral motor (tongue tip to alveolar ridge and holding it there for a 5-10 sec. count).

2) You can increase difficulty of words as the children get better. Start using words with more than one velar or words with one velar and one alveolar. I haven't done this, but it is recommended.

GOALS WRITTEN FOR CYCLES
(that can be adapted for traditional articulation)

You only target words in Cycles with the exception of the carrier phrase on the s-blends. However, if the child was to move and the new SLP isn't using Cycles, the goals written for just word level would not work. In addition, if you have to change to a traditional approach during the IEP (maybe the child finished Cycles, but needs to work on /r/ or in this child's case, his lateralization of strident sounds " sh", "ch", and "dz"--which I do not work on in Cycles), this will prevent you from having to meet to change the goals.

PLP

According to his evaluation, _____'s voice, fluency, hearing, and receptive language are within normal limits. He presents with a moderate phonological delay affecting clusters (/sp, st, sn/ etc.) and liquids (/ l,r/). In addition, he produces the sounds /s, z, ch, sh, dz/ with lateral airflow giving his speech a " slushy"quality. These errors make his speech difficult to understand when context is not known and he needs to correct these errors so that he can fully access his curriculum.

ANNUAL GOAL

Given direct articulation instruction, _____ will produce /s, z/, ' sh', 'ch', 'dz', s-blends, /l, r/ in words, phrases, sentences with 95% accuracy at each level until the sound is produced by _____ in conversation.

SHORT TERM OBJECTIVES

Given direct articulation instruction, _____ will
1) Produce /s, z/ and s-blends in words, phrases, sentences, with 95% accuracy at each level, until the sound is produced by _____ in conversation.
2) Produce 'sh', 'ch', 'dz', in words, phrases, sentences, with 95% accuracy at each level, until the sound is produced by _____ in conversation.
3) Produce /l, r/ in words, phrases, sentences, with 95% accuracy at each level, until the sound is produced by _____ in conversation.

PROGRESS MEASUREMENT

Therapy data
Observation of student responses in conversational speech
Informal assessment

Using IPA Fonts on your computer

Go into Word and select Arial Unicode MS as your font.

Click Insert from the top menu and then Symbol.

A new box will pop up that will have the symbols in it. Pick IPA from the drop down list and you will see all the symbols there you should need.

I actually found them all and copied them into a word document as I thought it would be easier to cut and paste when I needed them instead of having to look up every symbol every time. They are available on my website as well.

You can access all of the documents you see today plus MANY others by going to our WEBSITE:

www.expressionsspeech.com

Be sure to join our group on Facebook too! The link is on our website!

Table of Contents

Topic	Page
Cycles Definition	1
Why Target Patterns?	1
Patterns: Primary and Secondary	2
Sound Class Definitions (Liquids, Velars)	2
Screening—HAPP-3 Form Information	3
Phonology Norms: Caroline Bowen	3
Apraxia Information	4
Article on Apraxia vs. Phonology	4
HAPP-3Analysis Form	5
Sections on HAPP -3 Analysis Form	5
Scoring HAPP-3	5
Substitutions/Omissions —Scoring	5
Scoring Considerations	6
Scoring Instructions	6
Recording Info on Forms (TOMPD)	6
Determination of Targets	7
Stimulability	7
Most Common Target Patterns	7
CYCLES	
Defined—60 Minutes Per Sound	8
Length of Cycle	8
Treatment Materials Discussion	8
Therapy Session Components	9
Auditory Bombardment	9
Production Practice Words	**9**
Cycles vs. Traditional Articulation	**4a**

Table of Contents

Topic	Page
Roderick Scoring of Transcript and Cycle Design	9
Patterns: Syllables, Final Consonants	10
First Pattern of Cycle One ~ Final Consonants	10
Voiced Final Sounds ~ Do Not Target	10
Patterns: Initial Consonants, Glides, Singleton /f/	10
Second Pattern of Cycle One ~ Glides	10
Third Pattern of Cycle One ~ Singleton /f/	10
Patterns: Velars, Strident S -Clusters	11
Fourth Pattern of Cycle One ~ Velars	11
Bypass Velars if not Stimulable	11
Fifth Pattern of Cycle One ~ S -Clusters	11
Fifth Pattern: Strident S -Clusters ~ Continued	11
Carrier Phrase with /s/ -clusters	11
Patterns: Liquids	12
Six Pattern of Cycle One ~ Liquids	12
End of Cycle 1 ~ Elicit Sounds not Targeted	12
Cycle 2 ~ Overview	12
Remember ~ Target ALL Sounds with Patterns	13
Re-Administer HAPP -3 ~ When? What to Expect?	13
Data Sheet Example	13
Apraxia vs. Phonology Linguisystems	14
Roderick—Cycle 1 Targets Listed	15
Roderick—Sessions Cycle 1 and Cycle 2	16
Roderick—Sessions Cycle 2 and Cycle 3	17
Roderick—Sessions Cycle 4	18
Roderick's Update	18

Table of Contents

Topic	Page
Books & Materials Citation List	19
Research Articles	19
Apraxia Abstract	19
What To Use From *Easy Does It* Books	19
Games to Play in Therapy	20
Final Thoughts and Notes	20
Some Key Points to Remember	20
DO NOTs—Things you want to avoid	22
In Betweens	22
IEP GOALS FOR PHONOLOGY	23
IPA Fonts on Your Computer	23
WEBSITE AND DOCUMENTS LINKS	23

All of the Items Below Can Be Found on the Website:
--HAPP-3 COLORED PICTURES FOR TEST AND SCREENING
--Schedule Forms, Therapy Logs, Artic Techniques and Tips,
--Plus so many other therapy tools/documents!

Cycles Guidelines & Organizational Chart

Cycles created by Barbara Hodson

Chart created by Dawn Moore

PATTERN: Syllables **QUESTION**: Does the child maintain syllables? **YES**: Move to next pattern. **NO**: Target 2 or 3 syllables ~ Pick 5 words for each syllable level and work on them for 60 minutes. Targets: Can be CV syllable at beginning (baybay, deedee, hihi mowmow, newnew or whatever initial sounds they can produce with max cues.)	
2 syllables	Example Words: Football, pancake, beanbag, doghouse, dump truck OR use 2-part reduplicated syllables and increase complexity as soon as possible. **Selected words**:
3 syllables	Example Words: Tic tac toe, popcorn ball, ice cream cone, cowboy hat, baseball bat, OR use 3-part reduplicated syllables and increase complexity as soon as possible. **Selected words**:
PATTERN: Final Consonants **QUESTION**: Does the child produce ending sounds on words? **YES**: Move to next pattern. **NO**: Target ~ /p, m, t, n/ (These are the only final sounds targeted; do **not target** voiced final sounds) If the child is a backer, use a softened starburst molded to the alveolar ridge try to elicit final /t/ in ate, eat, ite, oat, oot. Two sounds targeted together; 3 target words for each sound for 60 minutes. It's okay to separate them IF the child is only stimulable for one of the sounds in the pair. Final sound /k/ and /f/ will be targeted later.	
Final /p, m/	Example CVC Words: nap, top, map, ham, Tim, gum. You can use VC words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected words**:
Final /t, n/	Example CVC Words: hat, pot, mitt, pan, bun, ten. You can use VC words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected words**:
Final ___	Only use if you must separate the sounds above.
Final ___	Only use if you must separate the sounds above.
PATTERN: Initial Consonants **QUESTION**: Does the child mark all initial sounds? **YES**: Move to next pattern. **NO**: Scan the transcript for initial sounds deleted and be sure to check for alveolars and /h/. **TARGET**: Initial /b, d, h, m, n, p, t/. (Not /v, z, s, sh, ch, dz/ and skip velars, /f/, and liquids for now). Try initial /t/ and /d/ using tay, tea, tie, toe, too and day, dee, die, doe, do. If, after max cues and trying at the beginning of 2 sessions, skip them for now, but stimulate them **every** session, **even when you are not working on these sounds**.	
Initial /b/	Only target if needed. Pick 5 target CVC words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /d/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /h/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /m/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /n/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /p/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
Initial /t/	Only target if needed. Pick 5 target words if targeted individually or 6 words if you combine this with another sound. Can use CV if needed.
PATTERN: Glides **QUESTION**: Does the child produce /w/ and /j/ in words? **YES**: Move to next pattern. **NO**: Target /w, j / **ONLY** if the child is 60% or more deficient on the HAPP-3 Summary.	
Initial /w/	Example CVC Words: weight, way, win, weed, wipe (if too hard try CV: way, wee, why, whoa, woo) **Selected Words**:
Initial /j/	Example CVC Words: yarn, yum, you, yawn, yip (if too hard, try CV: yay, yee, yigh, yo, you) **Selected Words**:

Cycles Guidelines & Organizational Chart

Cycles created by Barbara Hodson

Chart created by Dawn Moore

SIX MAX TARGETS

PATTERN: Singleton Strident /f/ **QUESTION**: Does the child produce /f/ in the initial and final positions? **YES**: Move to next pattern. **NO**: Target Final /f/ and Initial /f/ ~ It's optional to work on this sound (Hodson does not). It will only correct /f/, but I have found it to give the child some early success and it can normalize errors.	
Final /f/	Example CVC Words: beef, half, whiff, poof, knife. You can use VC words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected Words**:
Initial /f/	Example CVC Words: food, fun, fan phone, fight. You can use CV words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected Words**:
PATTERN: Velars **QUESTION**: Does the child produce Initial /k, g/ and Final /k/ in words? **YES**: Move to next pattern. **NO**: Target Final /k/ in 5 target words; Initial /k, g/ using 3 target words for each sound (6 total). Can work on initial /k/ and not /g/ and vice versa. Try other sound later. Only target IF stimulable with max cues, otherwise SKIP this pattern. Stimulate Final /k/ every session **every** session, **even when you are not working on this sound**. Final /k/ is usually easier to elicit in ack, eek, ike, oak, ook. Do **not** target final /g/.	
Final /k/	Example CVC Words: peek, book neck, walk, bike. You can use VC words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected Words**:
Initial /k/ and /g/	Example CVC Words: can, car, cow, game, gate, goat. You can use CV words to start if CVC is too difficult. Move to CVC as soon as possible. **Selected Words**:
PATTERN: Strident Clusters (S-blends) **QUESTION**: Does the child produce s-blends in words? **YES**: Move to next pattern. **NO**: Target Final –ts, -ps, Initial sp, st, sn, sm. Pick 5 words for each sound and target for 60 minutes each. Only target six s-blends. If the child is not stimulable for an s-blend, try another and come back. Alternative targets: /sl, sk, ks/ (/k/ for backers). Do not target if /l/ or /k/ is not present in inventory. In later Cycles, you can combine more than one s-blend in a session if the child is able. In Cycle 3, try to add the carrier phrase "It's a _____", where the blank is a target s-blend, to facilitate generalization to conversation.	
Final -ts	Example CVCC Words: pots, hats, boats, pets, bats. You can use VCC here if necessary. Try to get to CVCC as soon as possible. **Selected Words**:
Final -ps	Example CCVC Words: hops, maps, tops, naps, tapes. You can use VCC here if necessary. Try to get to CVCC as soon as possible. **Selected Words**:
Initial /sp/	Example CCVC Words: spot, spin, spine, spoon, speed. You can use CCV here if necessary. Try to get to CCVC as soon as possible. **Selected Words**:
Initial /st/	Example CCVC Words: stain, step, stone, stem, stop. You can use CCV here if necessary. Try to get to CCVC as soon as possible. **Selected Words**:
Initial /sn/	Example CCVC Words: snap, snip, snow, snail, snout. You can use CCV here if necessary. Try to get to CCVC as soon as possible. **Selected Words**:
Initial /sm/	Example CCVC Words: smoke, small, smile, smell, smooth. You can use CCV here if necessary. Try to get to CCVC as soon as possible. **Selected Words**:
PATTERN: Liquids (Initial /l/ and /r/) ~ Do NOT Skip! **QUESTION**: Does the child produce Initial /l/ and Initial /r/ in words? **YES**: Move to next pattern. **NO**: Target Initial /l/ and Initial /r/ in 5 target words for 60 minutes each. You are suppressing gliding and can use an interdental placement to establish Initial /l/. For Initial /r/, you need to suppress gliding by having the child SMILE. If it is not a /w/, it's an approximation of /r/. Avoid rounded vowels.	
Initial /l/	Example CVC Words: lid, light, lawn, lion, late. Use CV words, if CV are too hard ~ lay, lee, lie, low, loo. Move to CVC as soon as possible. **Selected Words**:
Initial /r/	Example CVC Words: red, read, write, rain, ray. Use CV words, if CVC are too hard ~ ray, ree, rye, row, roo. Move to CVC as soon as possible. **Selected Words**:

Cycles Guidelines & Organizational Chart

Cycles created by Barbara Hodson

Chart created by Dawn Moore

Congratulations! You have reached the end of Cycle 1

QUESTION: Were all of the allowed sounds, within each pattern above, able to be elicited?

YES; Move to **CYCLE 2**!

NO: Examine the patterns above and try to elicit any sounds that were difficult during the Cycle. Exposure to some sounds allows a child to become stimulable for others in the pattern (i.e., /st/ encourages /sp/). Target those newly stimulable sounds here and then move them to their pattern place in the Cycle when you work on Cycle 2. For example, if the child is now able to produce final /f/, work on it here, but then move it into the Strident Pattern in Cycle 2. You can add as many sounds as you need to at this point. When you finish, move to Cycle 2.

CYCLE 2

This Cycle will be the same as Cycle 1.

You will repeat the same patterns and sounds. You can use the same words OR you can increase complexity. (i.e., Change from CV to CVC, use harder words, etc.)

What will be different about Cycle 2

- Cycle 2 should contain MORE sounds. Cycle 1 is a foundation and lays the groundwork for the child to become stimulable for more sounds that were previously difficult to produce.
- You will need to add in any sounds the child was NOT stimulable for in Cycle 1. For example, if the child was unable to produce /st/, you can attempt to add it in during this Cycle. This is true of any sounds within the primary patterns.
- You will take OUT any sounds you hear the child using in conversation. This does not typically happen after Cycle 1, but sometimes final sounds will start to emerge in conversational speech.
- The production practice words will be a LOT easier this Cycle. You should find you need less cueing and the percentage correct will be higher.
- At the end of the Cycle 2, re-administer the HAPP-3. Take out the patterns that have dropped to below 40%.
- Move to **Cycle 3** and start over again.

Things to Remember

- Cycles is WORD level drill. The only time you use a carrier phrase is when you get to Cycle 3 or 4 and the child is ready to do this with s-blends. Do not use more than 5/6 words. Refer to the main outline for more information.
- Cycles limits what you are allowed to work on and the number of words you target within each pattern. Do not ignore these limitations as they are what make Cycles more efficient than traditional articulation drill. Do **not** target voiced final sounds.
- Play games while you work on the words; there are examples in the main outline. However, don't let the game distract from the overall goal of good productions.
- Be sure to have a "talking" day in speech every so often. You need to HEAR if the sounds are beginning to emerge in conversation.
- Be sure to check for additional stimulable sounds at the END of every Cycle before moving to the next Cycle.
- Some children may need 3, 4, 5 or more Cycles.
- You can add in singleton stridents ('ch', 'sh', etc. after the primary patterns are remediated). However, most of the time, you will not have to as they will correct on their own!
- Keep track of ALL of your Cycles on the "Cycles Tracking Sheet"
- Don't forget about auditory bombardment. Use the recording app on your phone and headphones. Record the 10 words and sentences, substituting the child's name where you can, and keep track on the Cycles Worksheet. Now they will always be there for you to use at the beginning and end of each session and for future Cycles.

Cycles Guidelines & Organizational Chart

Cycles created by Barbara Hodson

Chart created by Dawn Moore

More Things to Remember

- If a child is in the severe or profound range for phonology, consider a full special education evaluation for other services. Children with severe/profound delays in phonological skills may be learning disabled.
- Check your state guidelines for qualification for others areas of disability for which the child is eligible. **Developmental Delay** requires significant impairment in **one** area and communication qualifies. This means the child may be able to get resource assistance for reading a lot earlier than usual and won't have to "wait to fail." We are typically the first professionals to identify kids with delays and should advocate for all the services they need.
- Remember phonological delays are RULE-based language delays. Language delays and learning disabilities may accompany phonological delays.
- Don't be afraid to try this program with children in the moderate range of delay. You will see more progress using it than traditional artic.
- You can adapt this program for lower functioning children, kids with autism, Down's, and other syndromes. Because you only work at the word level, it is perfect for them.
- I've had success using this program for children with cleft palate and those I suspected apraxic.
- You can also implement a Cycles type approach for ESL kids or regular kids to work on pronouns and/or grammar structures. For example, work on I/you for two sessions, then pick another set of pronouns (he/she). You can also target verbs in the same manner.
- Try to implement a home program, if you can. It can decrease therapy time by half or more!
- Work with teachers during assessments to ensure children are not being scored lower due to sound errors. For example: A child uses initial consonant deletion and when he tries to say /z/, he says "e". Show the teacher how to probe letter knowledge receptively instead of expressively.

HAPP–3

Hodson Assessment of Phonological Patterns–Third Edition

Major Phonological Deviations Analysis Form

Name Roderick Examiner Age: 5;0 Date 4/2004

IPA Transcriptions	
Target Words	**Productions**
1. b__sk__t	/b æ n ɪ /
2. b__ts	/b oʊ /
3. k__nd__	/t æ n l /
4. ʧ__	/t ɛ ə /
5. kl__dz	/t aʊ /
6. k__b__h__t	/t aʊ bɔɪ h æ /
7. f__ð__	/t ɛ d ə /
8. f__ʃ	/t ɪ /
9. fl__w__	/t aʊ l ə /
10. f__k	/t ɔ ə /
11. gl__s__z	/d æ n ɪ /
12. gl__v	/d ʌ /
13. g__m	/g ʌ /
14. h__ŋ__	/h æ n ə /
15. h__s	/h ɔ ə /
16. __skj__bz	/aɪ t u /
17. ʤ__mp__ŋ	/d ʌ ɪ /
18. l__f	/l i /
19. m__sk	/m æ /
20. mj_z_kb_ks	/m j u d ɪ bɑ /
21. p__ʤ	/p eɪ /
22. pl__n	/p eɪ /
23. kw__n	/k i /
24. r__k	/w ɑ k /
Subtotal	

WORD/SYLLABLE STRUCTURES						
Substitutions are NOT scored in these 6 columns						
Syllable Omissions	Consonant Omissions					
	Sequences/Clusters		Singletons			
	With Stridents	Without Stridents	Pre-Vocalic	Inter-Vocalic	Post-Vocalic	
	sk		b		t	
	ts		b			
		nd	k			
			ʧ			
	dz	kl				
			k	b h	t	
			f	ð		
			f		ʃ	
	fl			w		
			f		k	
		gl		s	z	
		gl			v	
			g		m	
			h	ŋ		
			h		s	
	skj bz					
		mp	ʤ		ŋ	
			l		f	
	sk		m			
	ks	mj kb		z		
			p		ʤ	
		pl			n	
		kw			n	
			r		k	

CONSONANT CATEGORY DEFICIENCIES								
Substitutions [as specified*] and **omissions** are scored as "deficiencies"								
Deficiencies—Sonorant Categories				**Deficiencies—Obstruent Categories**				
Liquids		Other		Stridents		Velars	Other	
Prevocalic *nonliquid		Nasals *nonnasal	Glides *nonglide	Anterior *nonstrident	Palatal	*Fronting	*Backing /k, g, h/ only	
				s		k	b t	
				s			b t	
		n				k	d	
					ʧ			
l				z		k	d	
						k	b t	
				f			ð	
				f	ʃ			
l			w	f				
				f		k		
l				s z		g		
l				v		g		
		m				g		
		ŋ						
				s				
			j	s z		k	b	
		m ŋ			ʤ		p	
l				f				
		m		s		k		
		m	j	z s		k k	b	
					ʤ		p	
l		n					p	
		n	w			k		
	r					k		

Roderick, Page 2

IPA Transcriptions

Target Words	Productions	Syllable Omissions	Consonant Omissions: Sequences/Clusters: With Stridents	Consonant Omissions: Sequences/Clusters: Without Stridents	Consonant Omissions: Singletons: Pre-Vocalic	Consonant Omissions: Singletons: Inter-Vocalic	Consonant Omissions: Singletons: Post-Vocalic	Deficiencies—Sonorant Categories: Liquids: Prevocalic *nonliquid	Deficiencies—Sonorant Categories: Liquids: Prevocalic *nonliquid	Deficiencies—Sonorant Categories: Other: Nasals *nonnasal	Deficiencies—Sonorant Categories: Other: Glides *nonglide	Deficiencies—Obstruent Categories: Stridents: Anterior *nonstrident	Deficiencies—Obstruent Categories: Stridents: Palatal *nonstrident	Deficiencies—Obstruent Categories: Velars: *Fronting	Deficiencies—Obstruent Categories: Other: *Backing /k, g, h/ only
25. skr_dr__v__	/ t u d aɪ d ə /		skr	dr		v			r r			s v		k	d
26. ʃ__	/ t u /				ʃ								ʃ		
27. sl__d	/ t aɪ /		sl				d	l				s			d
28. sm__k	/ t oʊ /		sm				k			m		s		k	
29. sn__k	/ t eɪ /		sn				k			n		s		k	
30. s__p	/ t oʊ /				s		p					s			p
31. sp__n	/ p u /		sp				n			n		s			p
32. skw___	/ t ɛ ə /		skw								w	s		k	
33. st__	/ t ɑ ə /		st									s			t
34. str__ŋ	/ t i n /		str				ŋ		r	ŋ		s			t
35. sw__m__ŋ	/ t i m ɪ n /		sw			m	ŋ			m ŋ	w	s			
36. t_l_v_ʒ_n	/ t ɛ ə b ɪ d ə n/				t	l v ʒ	n	l		n		v	ʒ		t
37. t__θbr__ʃ	/ t u b ʌ /			θbr	t		ʃ		r				ʃ		t θ b
38. tr__k	/ t ʌ /			tr			k		r					k	t
39. v__s	/ d eɪ /				v		s					v s			
40. w__ʧ	/ l ɑ /				w		ʧ				w		ʧ		
41. j__j__	/ l oʊ l oʊ /				j	j					j j				
42. z__p	/ d ɪ /				z		p					z			p
43. kr___nz	/ t eɪ ə n /		nz	kr					r	n		z		k	
44. bl__k	/b æ /			bl			k	l						k	b
45. gr__n	/ d ɪ n /			gr			n		r	n				g	
46. j__l__	/ l ɛ l oʊ /				j	l		l			j				
47. θr__	/ t i /			θr					r						θ
48. θ__m	/ t ʌ /				θ		m			m					θ
49. n__z	/ n oʊ /				n		z			n		z			
50. m__θ	/ m aʊ /				m		θ			m					θ
	Subtotal														
	Total Deviations														

HAPP–3

Comprehensive Phonological Evaluation Record Form

Hodson Assessment of Phonological Patterns

Third Edition

Section 1. Identifying Information

Name _____ Female ☐ Male ☐ Grade/Education Level _____

	Year	Month	Day
Date of Testing			
Date of Birth			
Chronological Age			

School/Agency _____

Examiner's Name _____

Caregiver's Name _____

Section 2. Clinical Information

Total Occurrences of Major Phonological Deviations (TOMPD) ☐

TOMPD Severity Rating

TOMPD	✔	Severity Interval If in bottom 10 points of interval, designate "Low"; if in top 10 points, designate "High"
1–50		Mild
51–100		Moderate
101–150		Severe
>150		Profound

Goal Statement
Major Potential Target Patterns
List Glides and Anterior Nonstrident Obstruents *only if above 60%*
List all other percentages *above 40%*

To increase intelligibility, facilitate emergence of the following phonological patterns:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Section 3. Normative Information

Consonant Category Deficiencies Sum _____

Ability Score
(Use only for research purposes)
_____

Percentile Rank ☐

Standard Deviation	≥2	1.9–1.5	1.4–1	<1	≤.6
Percentile Rank	≤2	3–7	8–15	16–24	≥25

Section 4. Comments

_____
_____
_____
_____

4 5 6 7 8 9 10 11 12 13 14 13 12 11 10

Additional copies of this form (#11552) may be purchased from
PRO-ED, 8700 Shoal Creek Blvd., Austin, TX 78757-6897
800/897-3202, Fax 800/397-7633, www.proedinc.com

Section 5. Major Phonological Deviations—Occurrences and Percentages

Phonological Deviations	Occurrences		Percentages of Occurrence
Word/Syllable Structures (Omissions Only)			
Syllables	_____	÷ 16 = _____ × 100 =	_____
Consonant Sequences/Clusters			
With Stridents _____ (40)			
Without Stridents _____ (33)			
Total (may exceed 100%)	_____	÷ 39 = _____ × 100 =	_____
Singletons			
Prevocalic Singletons	_____	÷ 28 = _____ × 100 =	_____
Intervocalic Singletons	_____	÷ 14 = _____ × 100 =	_____
Postvocalic Singletons	_____	÷ 32 = _____ × 100 =	_____
Word/Syllable Structure Omissions Sum	☐		
Consonant Category Deficiencies (Omissions and Specified Substitutions*)			
Sonorants			
Liquids			
Prevocalic /l/ _____ (10)			
Prevocalic /r/ _____ (9)			
Total	_____	÷ 19 = _____ x 100 =	_____
Nasals (*nonnasal)	_____	÷ 21 = _____ x 100 =	_____
Glides (*nonglide)	_____	÷ 10 = _____ x 100 =	_____
Obstruents			
Stridents (*nonstrident)			
Anterior _____ (34)			
Palatal _____ (8)			
Total	_____	÷ 42 = _____ x 100 =	_____
Velars (*fronting)	_____	÷ 22 = _____ x 100 =	_____
Anterior Nonstridents (*backing)	_____	÷ 30 = _____ x 100 =	_____
Consonant Category Deficiencies Sum	☐		

Total Occurrences of Major Phonological Deviations (TOMPD)

Word/Syllable Structure Omissions Sum + Consonant Category Deficiencies Sum ☐