

CYCLES APPROACH TO PHONOLOGICAL DISORDERS

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- ▶ Information has been taken from Enhancing Phonological and Metaphonological Skills of Children with Highly Unintelligible Speech (Masters Clinician Series).

WHY NOT WAIT TO SEE IF CHILD WILL OUTGROW UNINTELLIGIBILITY?

- ▶ Critical Age Hypothesis (Bishop and Adams, 1990)
- ▶ Matthew Effects (Stanovich, 1986)
- ▶ Early intervention is important because children with disordered phonological systems are at risk for decoding text, comprehension, spelling, writing, and word finding.
- ▶ Children and even adults who have had disordered phonological systems may avoid multisyllabic words and have imprecise speech.

Who Benefits from a Phonological Cycles Approach?

- ▶ Children who are highly unintelligible
- ▶ Children who have verbal apraxia
- ▶ Children who have a history of hearing loss (including ear infections and/or chronic fluid on their ears)
- ▶ Children who have a cognitive delay
- ▶ Children who have orofacial anomalies (e.g., cleft palate)
- ▶ Children who have a disordered phonological system

Assessment

- ▶ Formal Testing (e.g., *HAPP-3*, *GFTA-2*, and *KLPA-2*)
- ▶ Informal Testing (e.g., Intelligibility speech sample, oral-motor screening, hearing screening, language sample, and consonant and vowel inventories)

Substitution Processes

Phonological Process	Definition	Examples
Fronting (velar or palatal)	A back sound is replaced by a front sound.	<ul style="list-style-type: none"> Go becomes doe. Cape becomes tape. Shoe becomes sue. Fish becomes fis.
Vowelization or Vocalization	A vowel sound is substituted for a liquid sound.	<ul style="list-style-type: none"> Bubble becomes bubbo. Bear becomes bay-uh.
Stopping	A stop consonant replaces a fricative or an affricate.	<ul style="list-style-type: none"> Shoe becomes tu. Jump becomes dump.
Racking	A front sound is replaced by a back sound.	<ul style="list-style-type: none"> Hat becomes hack. Tape becomes cape.
Gliding	Glides replace liquids.	<ul style="list-style-type: none"> Play becomes pway. Red becomes wed. Yellow becomes yewo.

Syllable Structure Processes

Phonological Process	Definition	Examples
Unstressed Syllable Reduction	The weak (unstressed) syllable in a word is deleted or is reduced.	<ul style="list-style-type: none"> Computer becomes puter. Elephant becomes ephant.
Final Consonant Deletion	The last consonant of a word is deleted from the word.	<ul style="list-style-type: none"> Duck becomes duk. Ball becomes bah.
Cluster Reduction	A cluster is reduced or replaced.	<ul style="list-style-type: none"> Stop becomes top. Tree becomes tea.
Initial Consonant Deletion	The initial consonant is deleted from the word.	<ul style="list-style-type: none"> Toe becomes o. Cow becomes ow.

Assimilation Processes

Phonological Process	Definition	Examples
Prevocalic Voicing (voicing)	The voiceless sound preceding a vowel is replaced by a voiced sound.	<ul style="list-style-type: none"> • Cape becomes gape. • Two becomes goo.
Word Final Voicing (devoicing)	The final voiced consonant is replaced by a voiceless consonant.	<ul style="list-style-type: none"> • Dad becomes dat. • Pig becomes pick.
Reduplication	A syllable or an incomplete syllable is repeated.	<ul style="list-style-type: none"> • Water becomes wawa. • Bottle becomes baba.
Assimilation:		
(a) Anticipatory (progressive)	(a) Sounds like a following sound.	(a) Tape becomes pape.
(b) Regressive	(b) Sounds like a preceding sound.	(b) Tape becomes tate.
(c) Labial	(c) Child has a labial and matches it.	(c) Soap becomes po.

Length of Sessions and Cycles

How Long Do Weekly Sessions Last?	How Long Is Each Cycle?
<ul style="list-style-type: none"> ▶ Three 20-minute sessions ▶ Two 30-minute sessions ▶ One 60-minute session 	<ul style="list-style-type: none"> ▶ It depends on number of patterns to be targeted. ▶ The number of stimulable phonemes within each target pattern. ▶ The first cycle is usually the longest one.

What Does a Cycles Approach Look Like?

<ul style="list-style-type: none"> ▶ Review the previous session's "practice" words. ▶ Do a listening activity. ▶ Practice producing 5-6 carefully selected words in multiple activities. ▶ Do a metaphonological activity. ▶ Probe for the next session's target. ▶ Repeat the listening activity.

Video Clips

What Patterns Do We Target?

Primary Patterns	Secondary Patterns
<ul style="list-style-type: none">▶ Omissions (e.g., FCD, ICD, Syllableness, /s/ Clusters)▶ Alveolars/Labials (if backing or missing)▶ Velars▶ /h/ (sometimes)▶ Facilitate Liquids	<ul style="list-style-type: none">▶ Palatals (e.g., glide, palatal sibilants, word-medial /r/, and vocalic /ə/)▶ Singleton Stridents▶ Other Consonant Sequences▶ Vowel Contrasts▶ Voicing Contrasts▶ Assimilations▶ Any remaining idiosyncratic deviations

What Processes Do You See When...

- ▶ Veterinarian becomes betterinarian?
- ▶ Glove becomes ba?
- ▶ Go becomes doe?
- ▶ Saxaphone becomes faxaphone?
- ▶ Cat becomes tat?

Do Not Target These Patterns in Preschool Children

- ▶ Word-final Voiced Obstruents
- ▶ Unstressed Syllables
- ▶ /θ/ and /ð/
- ▶ /ŋ/
- ▶ Vocalic /l/ (i.e., end of word)

*Lisps are distortions, but are not phonological patterns. Also, they do not usually affect intelligibility.

Why Teach /s/ Clusters before Singleton /s/?

- ▶ The /s/ blends are usually easy to teach. When children learn the /s/ blends, they often generalize to the /s/ and /z/.

METAPHONOLOGICAL ACTIVITIES

- ▶ Rhyming
- ▶ Segmenting
- ▶ Alliteration
- ▶ Blending

**Tots Learning to Communicate (TLC)
Program**
Nebo School District

Testing for TLC

- ▶ GFTA-2 (Look for Patterns)
- ▶ Language Screener
- ▶ Oral-peripheral Screener
- ▶ 50- to 100-Word Speech Sample
- ▶ General Developmental Screener

*Child must be cognitively intact to qualify.
*Child cannot have behavioral concerns.

Miscellaneous Information

- ▶ Currently there are four TLC Locations with four classes per location.
- ▶ Two SLPs teach each class per location. Up to eight children are in each class.
- ▶ Each child must be accompanied by an adult.
- ▶ Parents must not bring other children with them to the therapy sessions.
- ▶ Twenty-seven available lessons are written on the IEPs.
- ▶ Most processes are addressed at least twice during the school year.

What Does a Typical Session Look Like?

- ▶ Welcome children and parents.
- ▶ Review the previous week's sound.
- ▶ Introduce the sound with it's hand signal.
- ▶ Read a story highlighting the sound.
- ▶ Do a group activity reinforcing the sound.
- ▶ Make speech homework with a parent.
- ▶ Do individual therapy focusing on child's specific speech needs.

Video Clips

Format for Planning Lessons

- ▶ Name of Book and Assigned Sound
- ▶ Group Activity to Support Book and Sound
- ▶ Homework Activity

Research

- ▶ There is no official district data showing that TLC helps children develop preliteracy skills. However, kindergarten teachers throughout the district have reported that many of the children who have had TLC are some of their best readers.

References

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