# Phonological Awareness Assessment

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# Workshop Agenda

- Phonological Awareness: Definitions, Development & LINKS to Word Reading and Writing
- Psychometric Terms
- Norm-Referenced Measures
- Screening, Benchmark, and Progress Monitoring Measures
- Criterion-Referenced Measures
- Assessment Case Studies
- Closing Remarks

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# Phonological Awareness

Definitions and Development & LINKS to Reading and Writing

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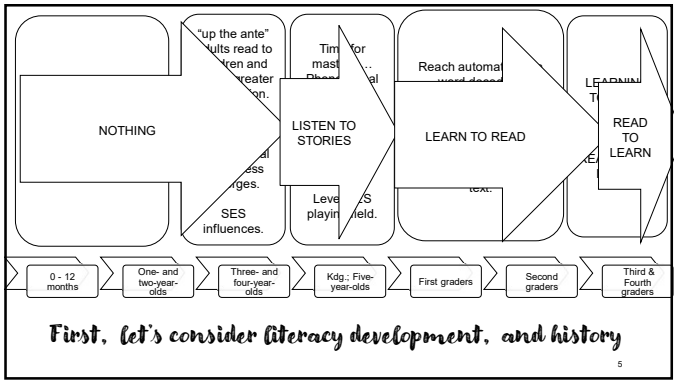


First, let's consider literacy development, and history

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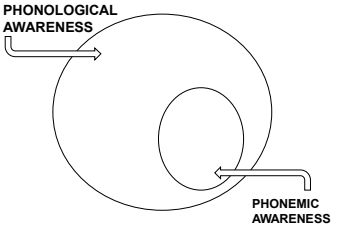
## What is Phonological Awareness?

- The ability to ANALYZE the sound structure of language
- A metalinguistic skill
- Allows a person to engage in tasks such as
  - judging whether two words rhyme,
  - saying the first sound in a word,
  - segmenting a word into sounds
  - and more.

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When did we realize that PA was so important to early reading success?

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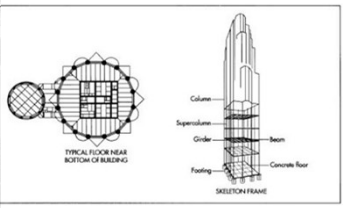
## From a Foundation of Phonological Awareness to Reading And Writing Success

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Word Decoding | Word Spelling

Alphabet Knowledge | Alphabetic Principle | Orthographic Knowledge

Phonemic Awareness

Phonological Awareness

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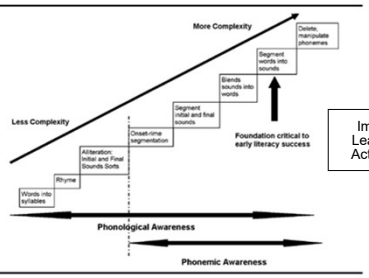
## Development of Phonological Awareness

Figure 1. Sequence of phonological awareness instruction and intervention.




Schuele and Boudreau (2008)

Implicit Learning Activities → Explicit Learning Activities

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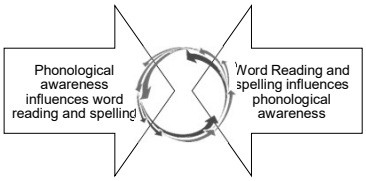
## What Skills at What Age/Grade?

It depends …

- home experiences
- school experiences
- interest
- broader literacy knowledge

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- Three-year-olds
- Pre-K Four-year-olds
- Kindergartners
- First Graders
- Second Graders and beyond

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Who has phonological awareness deficits?
For whom are phonological awareness deficits a barrier to literacy acquisition?

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# Three Ways to Define Deficit

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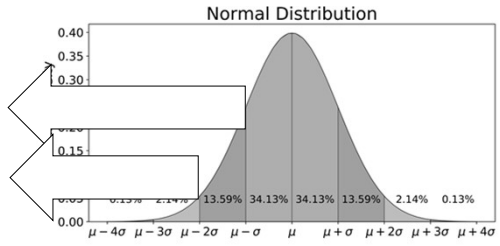
#1 Is the score of the individual or group below normal?

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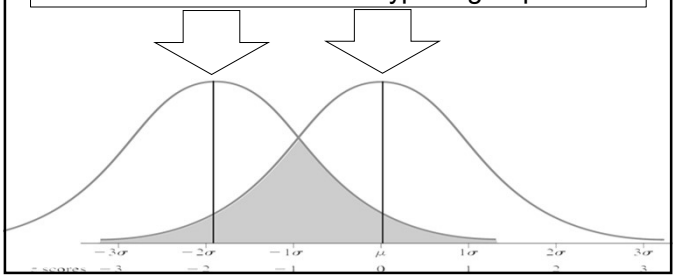
#2 Is there a statistically significant difference between the mean of the clinical group and the mean of the typical group?

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#3 Does the individual/group have what it takes?

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Who has phonological awareness deficits?
For whom are phonological awareness deficits a barrier to literacy acquisition?

- Children with Speech Sound Disorders
- Children with Primary Language Impairment
- Children with Intellectual Disabilities
- Children with/at Risk for Dyslexia (Learning Disability, Reading Disability)
- Struggling Learners

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## What does preschool and kindergarten prevention look like?

- Vocabulary knowledge
- Phonological awareness
- Print knowledge, including alphabet knowledge

Snow et al., 1998

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## Hypothesis-Driven Assessment

What is it that you want to know? need to know?

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## Assessment Questions
### When to ask what question?

- Are the child's phonological awareness skills within the average range for his age or grade?
- Does the child have the phonological awareness skills necessary to learn initial word decoding and word spelling skills?
- Is limited phonological awareness a factor in the child's difficulty learning to read?
- Is the child's phonological awareness skills developing as expected?
- What are the child's phonological awareness skills?

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## Psychometrics

- Floor/Ceiling effects
- Reliability
- Validity
- Standardized
- Norm-referenced
- Criterion-referenced
- Progress monitoring
- Screener
- Standard score
- Scaled score
- Grade equivalent
- Age equivalent
- Basal, ceiling

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## Norm-Referenced Measures of Phonological Awareness

Not all that useful. So, let's get this over with …

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## They will sell them, if you will buy them.


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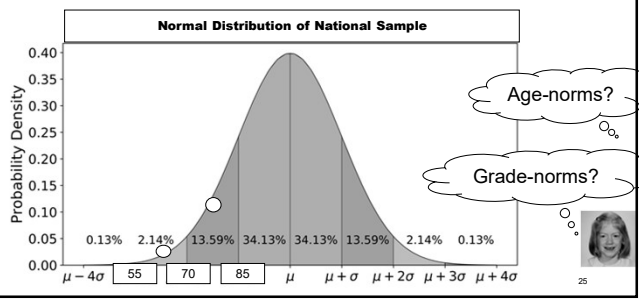
## Interpretation of Phonological Awareness NRST

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## Subtests of Phonological Awareness on Comprehensive Reading Batteries

- Woodcock Reading Mastery Tests-III
  - Phonological Awareness
- Wechsler Individual Achievement Test-4
  - Phonemic Proficiency
- Kaufman Test of Educational - 3Achievement
  - Phonological Processing
- Test of Integrated Language and Literacy Skills
  - Phonemic Awareness

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## Let's just look at one example ...

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## Test of Integrated Language and Literacy Skills – Subtest 2: Phonemic Awareness

- TILLS subtests interpretable
- Part of Identification Core for
  - 6- to 7-year-olds
  - 12- to 18-year-olds
- Included in composites
  - Sound/Composite Score
  - Oral Composite Score
- Can be administered as a stand-alone subtest to anyone within the age norms
- Task: deletion of the initial sound of a nonsense word
  - Monosyllabic and bisyllabic words
  - Singleton onsets and cluster onsets
- Age-norms
  - 6-month age bands through 7 years
  - 12-month age bands starting at 8 years

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## Test of Integrated Language and Literacy Skills – Subtest 2: Phonemic Awareness

- Correct: says word with initial sound deleted
- Incorrect: any other response

Confound may be phonological memory

lop → glop → misglop

Accommodate misarticulations in scoring

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## PA as part of a literacy battery

### GOOD

- Easy way for school psychologists to measure a child's phonological awareness
- Advantage to one normative sample for reading and PA measures
- Important for SLPs to know what/about measures school psychologists use

### BAD, UGLY

- It's a standard score and a percentile rank
  - But often these tests have smaller age bands than encountered on language measures, due to larger normative sample
- Check floor effects

good → bad → ugly

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So, when is a subtest or composite in a comprehensive literacy battery my go-to PA measure?

What will it tell me?
What won't it tell me?

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**DOMAIN SPECIFIC PA MEASURES**

- Comprehensive Test of Phonological Processing-2
- Test of Preschool Early Literacy
- Test of Phonological Awareness-2+
- Phonological Awareness Test-2NU

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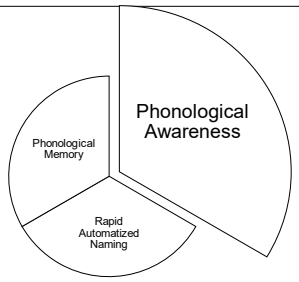
**THEORY: Phonological Processing**

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Comprehensive Test of Phonological Processing-Second Edition

Abbreviation: CTOPP-2
Authors: Wagner, Torgesen, Rashotte
Year of publication:
Cost: $347

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**Comprehensive Test of Phonological Processing (2nd ed.)**

Phonological Processing

- Phonological Memory
- Phonological Awareness
- Rapid Automatized Naming

- Norm-referenced, 4;0 – 24;11
- Two 'versions'
  - 4;0 – 6;11
  - 7;0 – 24;11
- Phonological Awareness Composite
- SBIR federal funding for development

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| CTOPP-2 Ages 4 - 6 | CTOPP-2 Ages 7 - 24 |
|---|---|
| • Phonological Awareness | • Phonological Awareness |
| ◦ Elision | ◦ Elision |
| ◦ Blending Words | ◦ Blending Words |
| ◦ Sound Matching ⇨ | ◦ Phoneme Isolation ⇨ |
| • Phonological Memory | • Phonological Memory |
| ◦ Memory for Digits | ◦ Memory for Digits |
| ◦ Nonword Repetition | ◦ Nonword Repetition |
| • Rapid Symbolic Naming | • Rapid Symbolic Naming |
| ◦ Rapid Digit Naming | ◦ Rapid Digit Naming |
| ◦ Rapid Letter Naming | ◦ Rapid Letter Naming |
| • Rapid Non-Symbolic Naming | |
| ◦ Rapid Color Naming | |
| ◦ Rapid Object Naming | |

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## CTOPP-2: Phonological Awareness

**ELISION**
*Say X. Now say X without saying Y*
Compound Words
Syllables
Phonemes (initial, final, medial, part of blend)

**BLENDING WORDS**
*Put these parts together to make a whole word.*
Compound Words
Syllables
Phonemes (up to 13)

**SOUND MATCHING**
*Which of these picture words starts with the X sound like Y? A or B*
*Which of these words ends with the X sound like Y? A or B*

**PHONEME ISOLATION**
*What is the first sound in the word L?*
*What is the last sound in the word M?*
*What is the middle sounds in the word N?*

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**CTOPP-2 Ages 4 - 6**
- Supplemental
  - Blending Nonwords

**CTOPP-2 Ages 7 - 24**
- Supplemental
  - Blending Nonwords
  - Segmenting Nonwords

When would I use these supplemental subtests or the Alternate Phonological Awareness Composite

Alternate Phonological Awareness

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## Norms

- Age-based norms
  - 4-month, 6-month, annual intervals
- Age- and grade-equivalent scores
  - "*we provide them (reluctantly)*"
- Percentile Ranks
- Standard Scores
- Descriptive interpretation, Table 3.1
- Floor effects, phonological awareness

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Why be concerned about floor effects?

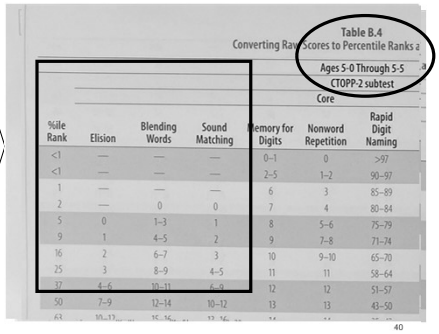
Table B.4
Converting Raw Scores to Percentile Ranks a
Ages 5-0 Through 5-5
CTOPP-2 subtest
Core

| %ile Rank | Elision | Blending Words | Sound Matching | Memory for Digits | Nonword Repetition | Rapid Digit Naming |
|---|---|---|---|---|---|---|
| <1 | — | — | — | 0–1 | 0 | >97 |
| <1 | — | — | — | 2–5 | 1–2 | 90–97 |
| 1 | — | — | — | 6 | 3 | 85–89 |
| 2 | — | 0 | 0 | 7 | 4 | 80–84 |
| 5 | 0 | 1–3 | 1 | 8 | 5–6 | 75–79 |
| 9 | 1 | 4–5 | 2 | 9 | 7–8 | 71–74 |
| 16 | 2 | 6–7 | 3 | 10 | 9–10 | 65–70 |
| 25 | 3 | 8–9 | 4–5 | 11 | 11 | 58–64 |
| 37 | 4–6 | 10–11 | 6–9 | 12 | 12 | 51–57 |
| 50 | 7–9 | 12–14 | 10–12 | 13 | 13 | 43–50 |
| 63 | 10–17 | 15–16 | 13–16 | 14 | 14 | 37–42 |

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## CTOPP-2: Phonological Awareness

**GOOD**
- Informative manual
  - Construct
  - Administration
- Great development work!
- Revision issues???
- Well-normed
- Developmental scores

**BAD, UGLY**
- Normed-referenced measure K – 2 not that important or helpful
- Incremental child change ≠ substantial SS change
- Bidirectional influence = older child with low SS may have sufficient PA for word decoding/spelling

good → bad → ugly

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So,
when is the CTOPP-2
my go-to measure?

What will it tell me?
What won't it tell me?

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# Test of Preschool Early Literacy

Abbreviation: TOPEL
Authors: Lonigan, Wagner, Torgesen, Rashotte
Year of publication: 2007
Cost: $260

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## TOPEL

- Print Knowledge Subtest
  - alphabet knowledge
  - written language convention and forms
- Definitional Vocabulary
  - single word oral vocabulary
  - definition information
- Phonological Awareness
  - elision
  - blending

- Norms 3;0 – 5;11
  - Normative study: 842 children across 12 states
  - 107 – 166 per annual age band
  - Standard Scores per 3-month age intervals

- Early Literacy Index
  - Print Knowledge Composite
  - Definitional Vocabulary Composite
  - Phonological Awareness Composite

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## TOPEL: Phonological Awareness Subtest

- 4 item sets, each with own ceiling
- **Set A: Deletion items: syllable* and phoneme**
  - Response format: choose picture from four picture options
- Set B: Deletion items: syllable and phoneme
  - Response form: verbal
- **Set C: Blend items: syllables* and onset-rime or onset_nucleus-coda**
  - Response form: choose picture from four picture options
- **Set D: Blend items: syllables* and onset-rime or onset_nucleus-coda or onset-nucleus-coda**
  - Response form: verbal

*2 monosyllables = compound word

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## Are there floor effects on the TOPEL: PA?

**Raw Score = 1, Standard Score = ?**
**Lowest Standard Score = 55**

| 3;0 – 3;2 | 3;3 – 3; 5 | 3;6 – 3;8 | 3;9 – 3;11 | 4;0 – 4;2 |
|---|---|---|---|---|
| 72 | 69 | 63 | 61 | 59 |

Yes, but not horribly so.

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## TOPEL Subtest and Composite Standard Scores

For 3- and 4-year-olds, the subtest and composite standard scores help to identify children who are performing below their peers, but the scores cannot be used to establish specific levels that are below average.

The subtest and composite scores for children at these ages do not have sufficient floor to allow examiners to make distinctions in below average levels of ability.

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When interpreting the scores of 5-year-olds, however, examiners can make distinctions in below average levels of ability for the subtests and composite.

For all ages, the TOPEL subtest and composite standard scores can be used to identify children who are at risk for literacy problems.

The standard scores attained from the TOPEL subtests and composite do not reveal the source of problems, only their existence.

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## TOPEL Authors: Cautions in Interpreting Test Results

1. Test Reliability: A Cause for Concern
   - Time sampling
   - Content sampling
   - Interscorer differences

**Almost perfect reliability still yields as much as 15% error**

- Diagnostic judgements about individuals
- Have educational and social consequences
- Handle test results carefully
- Test results that have reliabilities less than .80 – do not consider at all
- Diagnoses and hypotheses from test results – Need to confirm by other observations

*Note:* ;Some text is lifted from the manual; these ideas are from the TOPEL manual

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## TOPEL Authors: Cautions in Interpreting Test Results

2. Tests Do Not Diagnose
   - Professionals do not base diagnoses exclusively on the results of a specific test.
   - Test results = observations, performance level at point in time, don't tell why

There are many reasons that a child might score low on a test

Difficulty with early literacy skills only one reason a child scores low on the TOPEL

Collect information that goes beyond test results

People diagnose, tests don't

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## TOPEL Authors: Cautions in Interpreting Test Results

3. Test Results Do Not Translate Directly into Clinical Programs

- Clinical Teaching
- Extensive Observations
- Other Early Literacy Sampling Procedures
- Norm-referenced Tests
- Parent and Teacher Input

COMPREHENSIVE EVALUATION

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## TOPEL

### GOOD

- Informative manual!
- Final product represents the work of field's leader in phonological awareness
- Final products represents years of development
- Measure taps three critical literacy risk factors – and three malleable factors

### BAD, UGLY

- Normative phonological awareness assessment (and any normative assessment) with 3-year-olds can be particularly challenging
- Understand TOPEL limitations

good bad ugly

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So,
when is the TOPEL
my go-to measure?

What will it tell me?
What won't it tell me?

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## Test of Phonological Awareness–Second Edition: Plus

Abbreviation: TOPA-2+
Authors: Torgesen, Bryant
Year of publication: 2004
Cost: $263

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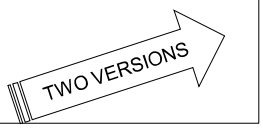
## TOPA-2+

- Norms 5;0 – 8;11
- Group administered (but can also administer individually)
- Picture Support for PA items




Kindergarten Version
- Phonemic Awareness subtest
  - 10 initial sound-same items; which of three words begins with same sound as target word
  - 10 initial sound-different items; which of four words begins with different sound
- Letter-Sounds subtest
  - 15 items; mark which of four letters corresponds to phoneme

Elementary Version
- Phonemic Awareness subtest
  - 10 ending sound-same items
  - 10 ending sound-different items
- Letter Sound subtest
  - Spell simple pseudowords (2 – 5 phoneme, monosyllables)

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## TOPA-2+ ~ Normative Data

- Normed on 2085 students, 26 states
  - 1035 Kindergarten version
  - 1050 Elementary version
- Time to administer
  - K: 30 – 45 min
  - 1: 15 – 30 min
- Standard Scores and Percentiles

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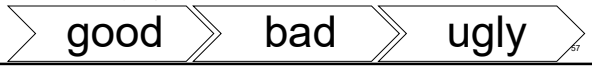
## TOPA-2+

**GOOD**
- Revision included new normative data and addition of letter-sound knowledge subtest
- Efficient for gathering classroom-wide normative comparisons
- # of children participating in normative study
- Narrow age range allows for design that better captures young children's skills

**BAD, UGLY**
- Variation in PA performance expectations across districts and schools may weaken the value of normative comparison
- Group administered test may be invalid or less valid for distractible children
  - Follow up with individual measure?
- Normative data may not reflect current student performance ~ 20 years old, instruction has changed

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So,
when is the TOPA-2+
my go-to measure?

What will it tell me?
What won't it tell me?

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Access to Literacy System-
Phonological Awareness

Abbreviation: ATLAS-PA
Authors: Skibbe, Bowles, Troia, Goodwin
Year of publication: 2007
Cost: FREE

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## ATLAS: PA – Access to Literacy System-Phonological Awareness

- Free, web-based assessment
- www.accesstoliteracy.com
- Development funded by IES
- 3;0 – 7;11
- UNIVERSAL DESIGN
  - Removes barriers re: speech production
- Requires no spoken response
- Accessible using tablet or laptop
- Minimizes testing time
- Opportunities for practice
  - 2 levels
- Three subtests
  - Rhyming
  - Blending
  - Segmentation

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## ATLAS-PA

### GOOD

- Free, free, free
- Some other measures have 'parts' that don't require a verbal response, but this is the only measure that requires no verbal response
- Levels of directions to meet needs of varied learner

### BAD, UGLY

- Ran into some problems …
  - Able to choose a response before item administered.
  - Letters and letter sounds did not work
  - System froze

Web-based ~ they are likely collecting user data to drive future development

good bad ugly

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So,
when is the ATLAS-PA
my go-to measure?

What will it tell me?
What won't it tell me?

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## Phonological Awareness Test-Second Edition: Normative Update

Abbreviation: PAT-2:NU
Authors: Robertson, Salter
Year of publication: 2007
Cost: $209

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## PAT-2:NU

- Norms: 5;0 – 9;11
- PA 5;0 – 9;11
- Supplemental 6;0 – 9;11
- Administration 40 – 50 min

- Test results help educators focus on those aspects of oral language that may **not be systematically targeted** in classroom reading instruction.
- The straightforward, developmental format lets you **easily tease out specific skills and plan** effective interventions.
- The test is comprehensive and includes a wide variety of tasks; performance on each of these tasks has been correlated with success in early reading and spelling.

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CORE

- **Rhyming**: Discrimination and Production-identify rhyming pairs and provide a rhyming word
- **Segmentation**: Sentences, Syllables, and Phonemes-divide by words, syllables, and phonemes
- **Isolation**: Initial, Final, and Medial-identity sound position in words
- **Deletion**: Compound Words, Syllables, and Phonemes-manipulate root words, syllables, and phonemes in words
- **Substitution with Manipulatives**: isolate a phoneme in a word, then change into another phoneme to form a new word
- **Blending**: Syllables and Phonemes blend units of sound to form new words

Supplemental

- Phoneme-Grapheme Correspondence: assesses knowledge of sound/symbol correspondence for consonants, vowels, consonant blends, consonant digraphs, r-controlled vowels, vowel diagraphs, and diphthongs
- Phonemic Decoding: assesses general knowledge of sound/symbol correspondence to blend sounds into nonsense words

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## PAT-2:NU

### GOOD

### BAD, UGLY

- Only SLPs know about and use this test
- There are better options for normative comparisons
- The pie is sliced into too many pieces
- The PAT came about when a criterion-referenced measure was normed – not a good idea!

good bad ugly

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So,
when is the PAT-2:NU
my go-to measure?

What will it tell me?
What won't it tell me?

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# Test of Auditory Processing Skills – 4th edition

Abbreviation: TAPS
Authors: Martin, Brownell, Hamaguchi
Year of publication: 2018
Cost: $205

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## THEORY: Auditory Processing Disorder

**Central auditory processing or Auditory Processing Disorder (CAP)** is the perceptual processing of auditory information in the central auditory nervous system (CANS) and the neurobiological activity that underlies that processing and gives rise to electrophysiologic auditory potentials (American Speech-Language-Hearing Association [ASHA], 2005).

Knowledge of the neuroanatomy and physiology of the central auditory nervous system is essential for understanding and interpreting underlying processes and deficits. Medwetsky (2011) provides in-depth information on this topic.

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## THEORY: Auditory Processing Disorder

CAP consists of mechanisms that preserve, refine, analyze, modify, organize, and interpret information from the auditory periphery. These mechanisms underlie the following skills:

**Auditory discrimination**

**Temporal processing**
- Auditory pattern recognition
- Temporal aspects of audition, including
  - temporal integration;
  - temporal resolution (e.g., temporal gap detection);
  - temporal ordering; and
  - temporal masking.

**Binaural processing**
- Sound localization and lateralization
- Auditory performance with competing or degraded acoustic signals (including dichotic listening; ASHA, 2005)

https://www.asha.org/Practice-Portal/Clinical-Topics/Central-Auditory-Processing-Disorder/

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## Test of Auditory Processing Skills (4th ed.) (TAPS-4)

- The TAPS-4 assesses skills across three intersecting areas: phonological processing, auditory memory and listening comprehension. These areas underpin the development of effective listening and communication skills and are critical to the development of higher order language skills, including literacy skills.

From website

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## TAPS-4

- Norm-referenced, 5 to 21
- Individually administered

- Overall composite
- Three indices
  - Phonological processing
  - Auditory memory
  - Listening Comprehension

**Phonological Processing Index**
- Word (Pair) Discrimination
- Phonological Deletion
- Phonological Blending
- Syllabic Blending (Supplemental)

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## TAPS-4

**Auditory Memory Index**
- Number Memory Forward
- Word Memory
- Sentence Memory
- Number Memory Reversed (Supplemental)

**Listening Comprehension Index**
- Processing Oral Directions (without background noise)
- Auditory Comprehension
- Auditory Figure–Ground—Processing Oral Directions with background noise (Supplemental)

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## TAPS-4

### Theory Matters

What is phonological awareness?
A metalinguistic skill
~~An auditory processing skill~~

good bad ugly

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So,
when is the TAPS-4
my go-to measure?

What will it tell me?
What won't it tell me?

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## SCREENER, BENCHMARK, and PROGRESS MONITORING MEASURES

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## Phonological Awareness and Literacy Screening

Abbreviation: PALS
Authors: Invernizzi et al. at UVA
Year of publication: 2003 etc.
Cost: less than $100 and can make own copies of test forms

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## Phonological Awareness and Literacy Screening (PALS)

- English
  - PALS-PreK
  - PALS-K
  - PALS 1 – 3
- PALS espanol K and 1 – 3
- 2 versions per year

**BENCHMARK ASSESSMENT**
Fall Benchmark
Spring Benchmark

**PALS-Kindergarten**
- Rhyme Awareness
- Beginning Sounds
- Alphabet Knowledge
- Letter Sounds
- Spelling
- Concept of Word
- Word Recognition in Isolation

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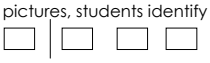
**RHYME AWARENESS:** Out of a set of three pictures, students identify the one that rhymes with the target picture.



**BEGINNING SOUND AWARENESS:** Group: Out of a set of three pictures, students identify the one that has the same beginning sound as the target picture. Individual: Sort 10 pictures based on initial sounds, 4 header pictures.

**ALPHABET KNOWLEDGE:** Students name the 26 lower-case letters of the alphabet.

**LETTER SOUNDS:** Students produce the letter sounds of 23 upper-case letters of the alphabet, as well as three digraphs.

**SPELLING:** Students spell five consonant-vowel-consonant words, receiving credit for phonetically acceptable substitutions.

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- **CONCEPT OF WORD** measures children's ability to (a) accurately touch words in a memorized rhyme, (b) use context to identify individual words within a given line of text, and (c) identify words presented outside of the text.

**WORD RECOGNITION IN ISOLATION** is an optional task on PALS-K, but can be administered to students who have some reading ability. Preprimer, Primer, and First-grade level lists are provided.

- **PALS-K**
  - Rhyme and Beginning Sounds
    - Administer in group
    - Administer individual follow-up for those children who did not reach benchmark
  - Remainder of tasks individual administration.

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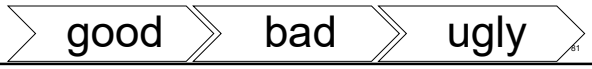
## PALS-PreK, -K, 1-3

### GOOD

- PreK and K very useful measures!
- Tasks "make sense" to teachers
- Obtain a variety of information
- Not expensive!
- Manual informative.

### BAD, UGLY

- Phonological awareness on PALS 1-3 can be inflated if child has memory for words but not decoding
- Got overshadowed by DIBELS

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So,
when is the PALS
my go-to measure?

What will it tell me?
What won't it tell me?

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## Dynamic Indicators of Basic Early Literacy Skills

https://dibels.uoregon.edu/

Development is ongoing but began around 2000

These tasks have been modified by multiple enterprises and underlie most universal screeners and progress monitoring measures.

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## Dynamic Indicators of Basic Early Literacy Skills

- Progress Monitoring Instrument
  - Multiple forms for repeated assessment over short duration of time
  - Interpret scores for risk and for change over time
- Standardized
- DIBELS research underlies nearly all universal screening and progress monitoring measures used in schools

**Phonemic Segmentation Fluency (PSF)**

- K: 2 phonemes, 3 phonemes
- 1: 2 phonemes, then increases in # phonemes

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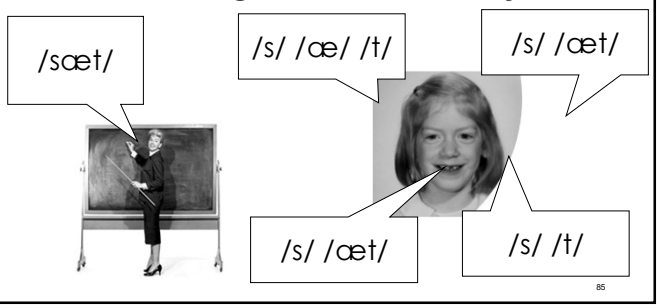
## Phonemic Segmentation Fluency

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## DIBELS: PSF

**GOOD**

- Lots of development work over the past 20 years, with a variety of progress monitoring measures beyond PA
- Trajectory of growth with incremental measurement possible

**BAD, UGLY**

- Does not account for development speech errors
- Scoring
- Timed test – may underestimate skills of children with communication impairments
- Tells you child is low, but not what to do to change that, beyond PA intervention

good → bad → ugly

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So,
when is the DIBELS:PA
my go-to measure?

What will it tell me?
What won't it tell me?

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## Criterion-Referenced Measures of Phonological Awareness

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**Table 2.** Comparison of norm- and criterion-referencing.

| *Norm-referencing* | *Criterion-referencing* |
|---|---|
| Fundamental purpose is to rank individuals | Fundamental purpose is to distinguish specific levels of performance |
| Test planning addresses a broad content | Test planning addresses a clearly specified domain |
| Items are chosen to distinguish among individuals | Items are chosen to cover content domain |
| Performance can be summarized meaningfully using percentile or standard scores | Performance can be summarized meaningfully using raw scores |

McCauley, 1996
LSHSS

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## Guidelines for Standardized Criterion-Referenced Measures (McCauley, 1996)

- Clear definition of the test domain
- Evidence of validity for the test user's intended application
- Evidence of reliability
- Careful description of the test takers used in studies of reliability and validity
- Detailed description of test administration
- Description of test user qualifications

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## Phonological Awareness Profile

Authors: Robertson, Salter
Year of publication: 1995
Cost: $45

The Phonological Awareness and Reading Profile – Intermediate (Salter & Robertson, 2001)

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## Phonological Awareness Profile

*The Phonological Awareness Profile* is an individually-administered, criterion-referenced test designed **to diagnose deficits in phonological processing** and phoneme/grapheme correspondence. Assess students' phonological processing and phoneme/grapheme correspondence. **Use the test as a pre- and post-measure to track improvement in phonological awareness.** The profile serves to complement other comprehensive measures of reading ability. **Test results help you plan intervention programs.**

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## Six Phonological Awareness Subtests

- **Rhyming**
  - discrimination
  - production
- **Segmentation**
  - sentences
  - compound words
  - syllables
  - phonemes
- **Isolation**
  - initial sounds
  - final sounds
  - medial sounds
- **Deletion**
  - compounds/syllables
  - phonemes
- **Substitution**
  - with manipulatives
  - without manipulatives
- **Blending**
  - compounds/syllables
  - phonemes

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So,
when is the Phonological Awareness Profile my go-to measure?

What will it tell me?
What won't it tell me?

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## Phonological Awareness Screening Test

Abbreviation: PAST
Authors: David Kilpatrick
Year of publication: 2016
Cost: free, https://equippedforreadingsuccess.com/

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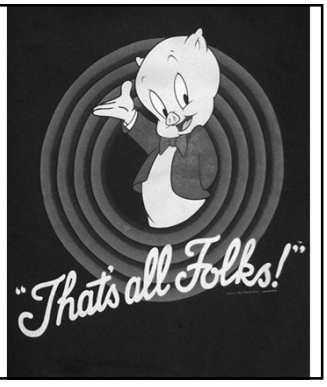
## PAST

- 4 versions
- Measure tied to Kilpatrick's intervention and based on Rosner's work in the 1970s
- Segmentation and manipulation task

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# Phonological Awareness Skills Screener

Abbreviation: PASS
Authors: Mather, Sammons, Podhajski, Kroese, Varricchio
Year of publication: no date
Cost: Free, search on web

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## PASS Tasks

1. Word Discrimination
2. Rhyme recognition
3. Rhyme production
4. Syllable blending
5. Syllable segmentation
6. Syllable deletion
7. Phoneme recognition
8. Phoneme blending
9. Phoneme segmentation
10. Phoneme deletion

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## PASS

- Search: phonological awareness skills screener
- Kindergarten through 2nd grade
  - Ok for older with PA deficits
- *This informal assessment is designed to help teachers detect students who are at-risk for reading and spelling difficulties.*

- By section,
  - If child gets no sample items correct, do not administer
  - Discontinue section is 3 sequential errors
- Administer all tasks
- Combine tasks for sc
  - Deletion score
  - Segmentation Blendi
  - Rhyme score
  - Blending score
  - Phoneme discriminat

- **No guidance provided for interpretation**

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~~1. Word Discrimination~~
2. Rhyme recognition
3. Rhyme production
4. Syllable blending
5. Syllable segmentation
6. Syllable deletion
7. Phoneme recognition
8. Phoneme blending
9. Phoneme segmentation
10. Phoneme deletion


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## Looking more closely at PASS Tasks

- Rhyme Recognition: What rhymes with sun? | cat run
- Rhyme Production: Tell me a word that rhymes with tree?
  - 5 monosyllables, then ringing, money, stamp
- Syllable Blending: What is sail … boat?
  - 2 compound words, 2 2-syllable words, one mor
    4-syllable compound words (basketball), 4 s
- Syllable Segmentation: Tell and show
  football.
  - 3 compound words, 3 2-syllable word
    words, 2 4-syllable words

If this is informing what to PA skills to teach, some researchers argue against teaching these skills. Any idea why?

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## Looking more closely at PASS Tasks

**Phoneme Blending**
What is /b/ /e/?

1. CV
2. CV
3. CVC
4. CVC
5. CVC
6. CCVC
7. CVCC
8. CVCV
9. CVCCV
10. CVCCVC

**Phoneme Segmentation**
Tell me the sound in TOE.

1. CV
2. CV
3. CVC
4. CVC
5. CVC
6. CCVC
7. CVCC
8. CCVCC
9. CCVCC
10. CCCVC

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## Other measures you may want to look at …

- **PreK PELI**
  - https://acadiencelearning.org/acadience-reading/prek-peli/
- **IDGIs**
  - IGDIs-PK3: Expanding Individual Growth and Development Indicators of Language and Early Literacy for Universal Screening in Multi-Tiered Systems of Support with Three-Year-Olds
  - https://innovation.umn.edu/igdi/projects/igdi-pk3/
- **PA Dynamic Assessment**
  - Spector (1992)
    - https://umaine.edu/edhd/wp-content/uploads/sites/54/2009/05/Dynamic-assessment-JEP-1992.pdf
  - Bridges & Catts (2011)
    - https://journals.sagepub.com/doi/pdf/10.1177/0022219411407863

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## PASS

GOOD BAD, UGLY


good bad ugly

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So,
when is the PASS
my go-to measure?

What will it tell me?
What won't it tell me?

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What skills does this child have?
What do I need to teach this child?
Has this child mastered the skills I have taught?

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## Measure of Phonological Awareness

Abbreviation: MOPA
Author: Schuele
Date: 2017, 2020
Publisher: Author
Cost: FREE

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**Development of an instructionally relevant, criterion-referenced measure of PA**

Five major steps are concerned with the design of the measure:

1. identification of the specific question to be answered concerning the client;
2. selection of stimulus items that cover the desired content, are relevant to that content, and are of appropriate difficulty for the client;
3. simultaneous identification of expected, desirable responses that can reasonably be executed by the client and reliably scored by the clinician;
4. formulation of instructions likely to be understood by the client; and
5. development of decision-making guidelines, including performance guidelines.

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Table 1. *MOPA Tasks and Description of Tasks*

| TASK | | Description |
|---|---|---|
| Segment Initial Sound | primary | The examiner says 10 words aloud and the child is asked to segment (i.e., say aloud) the initial sound in each word. The 10 word stimuli begin with a consonant sound and include one CV and nine CVC words. Four words begin with a continuant sound and six with a stop sound. Word stimuli are randomly ordered. |
| Segment Final Sound | primary | The examiner says 10 words aloud and the child is asked to segment (i.e., say aloud) the final sound in each word. The 10 word stimuli are CVC words that each end with a consonant sound. Five words end with a continuant sound and five with a stop sound. Word stimuli are randomly ordered. |
| Segment All Sounds | primary | The examiner says 20 words aloud and the child is asked to segment the words into individual phonemes (sounds). Word stimuli include one VC, two CVC, twelve CVC words, and five words that include a consonant blend (CCVC, CVCC). Words within each type vary in complexity and the 20 stimuli are ordered in sequence of hypothesized difficulty (i.e., stop and continuant sounds). |
| Rhyme Generation | primary | The examiner says 10 CVC words aloud and the child is asked to produce a word to rhyme with each word. Stimuli are randomly ordered. |
| Rhyme Judgment | primary | The examiner says 10 CVC word pairs aloud and the child is asked to indicate whether each pair rhymes (yes/no response). Chance performance on this measure is 50%. Stimuli are randomly ordered. |
| Blend Onset-Rime | optional | The examiner presents onset – rime units and the child is asked to blend the onset and rime and say the word formed. For all items, the onset includes a single sound and the rime includes a VC segment. Stimuli are ordered such that continuant onsets are presented before stop onsets. |
| Blend All Sounds | optional | The examiner presents 10 sets of phonemes that the child is asked to blend to form a word. Word responses include CV and CVC words and words with blends. Within each word structure, stimuli are randomly ordered. |

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Figure 1. *Initial MOPA Administration Flow Chart: Primary Tasks*

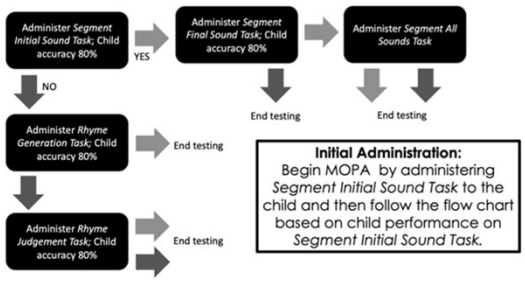


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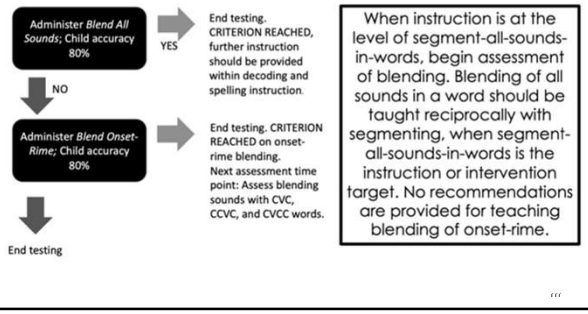
Figure 2. *MOPA Administration Flow Chart : Optional Tasks*

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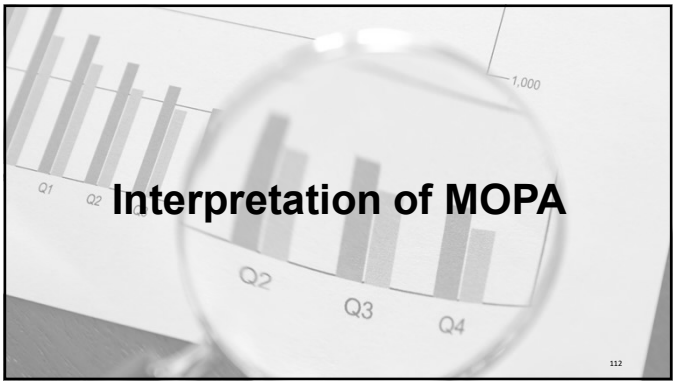


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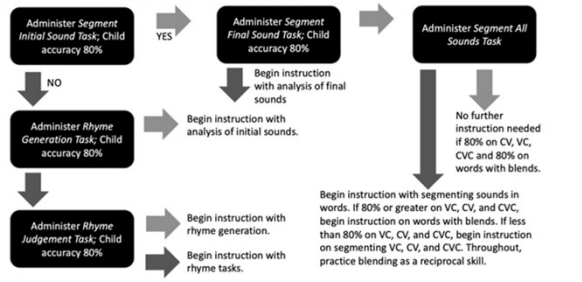
Figure 3. *MOPA Administration Flow Chart with Intervention Suggestions: Primary Tasks*

**Note**: Within this figure, instruction is synonymous with teaching, as in teaching the child a skill, whether that teaching occurs in a classroom or in an intervention setting.

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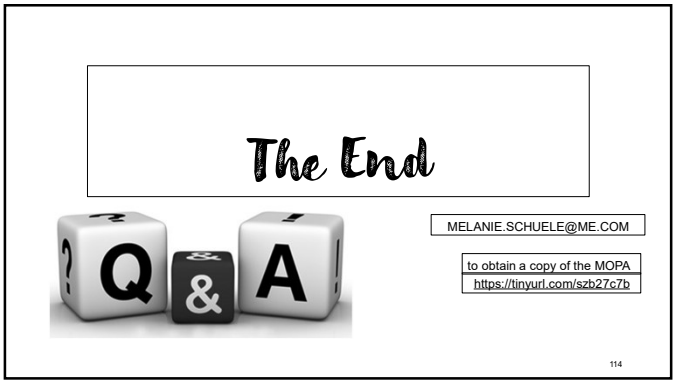


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