Dynamic Assessment for Clinicians

Test-Teach-Test,
Graduated Prompt Approaches, &
The Glaspey Dynamic Assessment of Phonology

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Disclosures

Amy Glaspey receives a salary from the University of Montana for her research, service, and teaching as a professor.

She is a board member of the Montana Speech-Language-Hearing Association.

She has a financial relationship with Academic Therapy Publications and will receive royalty income for the Glaspey Dynamic Assessment of Phonology.

Learner Outcomes

Learners will be able to:

✓ Define the differences between static and dynamic assessments

✓ Describe procedures for testing, mediated learning experience, and modifiability as part of the Test-Teach-Test DA approach

✓ Describe procedures for prompting with the Glaspey Dynamic Assessment of Phonology as part of the Graduate Prompt Approach

PROBLEM

Problems with Assessment

(Petersen, et. al, 2017)

High stakes for educational path

Product oriented rather than process

Test bias

Insensitivity to skill differences or change over time

Clinical Implications of Test Choice

When diagnosing . . .
   Over or under identification of clients, *diverse backgrounds

When comparing treatment programs & choosing approach . . .
   Misconception that treatments will have the same effect

When planning treatment . . .
   Poor decision making for treatment phases

When progress monitoring . . .
   Misconception that a child has made no progress

Solution

Sample treatment strategies, engage in instruction, and observe

Create sensitive measures based on the emergence of skills rather than a final product

Employ dynamic assessment

ASSESSMENT

Static   **Dynamic**

Static Assessment

(Sternberg & Grigorenko, 2002; Hasson & Joffee, 2007);

Alfred Binet
1909

- Includes IQ Tests, Speech tests
- Developed to predict future success
- Quantify & summarize pre-existing skills
- Clinicians trained to avoid support, assistance, or reinforcement
- Examiner/examinee neutral relationship
- Focus may lead to test bias, misinterpretation of functional skills

Dynamic Assessment

(Gutiérrez-Clellen & Peña, 2001; Hasson, Camilleri, Jones, Smith, & Dodd, 2012)

- Developed from cognitive literature
- Measures learning potential & adaptability
- Includes testing + instructional intervention
- Differentiate between difference & disorder
- Document a more precise baseline for planning treatment & evaluating change

Lev Vygotsky

Dynamic Assessment

- Builds a social, two-way, interactive relationship between examiner & examinee

- Allows us to observe skills emerge within the Zone of Proximal Development

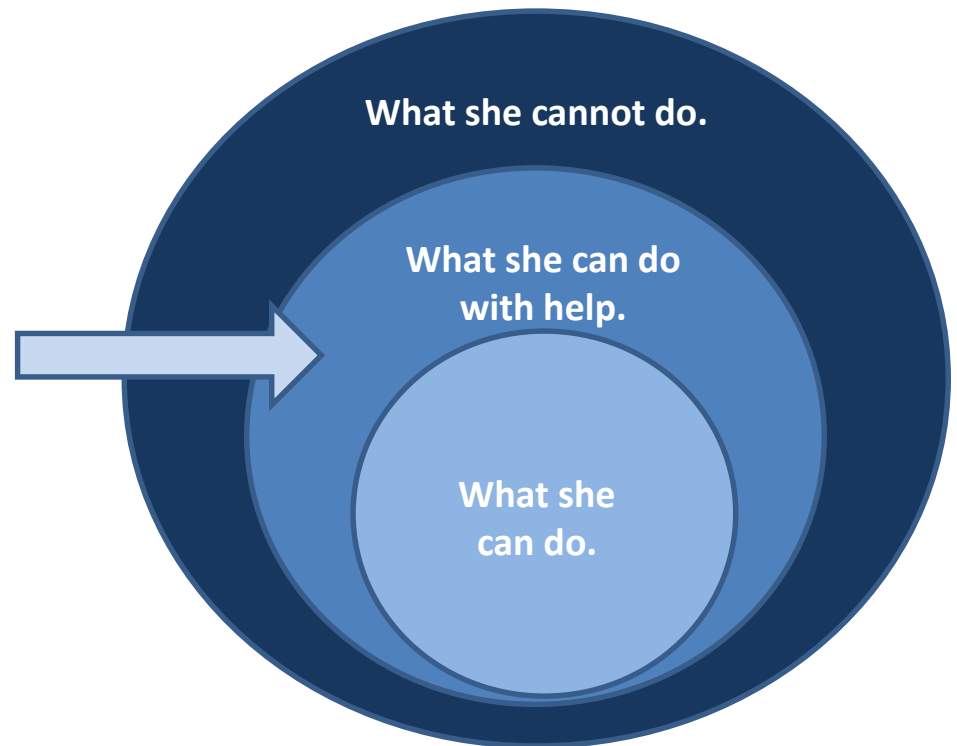- Some learners need little assistance others need a lot!

Zone of Proximal Development

Distance between where an individual performs with assistance and without

Where optimal learning occurs

Scaffolding is given within the ZPD

What she cannot do.

What she can do with help.

What she can do.

Dynamic

"Process or system characterized by constant change, activity, or progress."

Test-Teach-Test Approach

(Lidz & Peña, 1996; Peña, Gillam, & Bedore, 2014)

Pre-test → Teaching Phase → Post-test

Test-Teach-Test Approach
(Lidz & Peña, 1996; Peña, Gillam, & Bedore, 2014)

Pre-test		Post-test

Repeated measure
Alternative Equivalent measure

Gains in accuracy,
Better errors,
Ease of interaction

Test-Teach-Test Approach

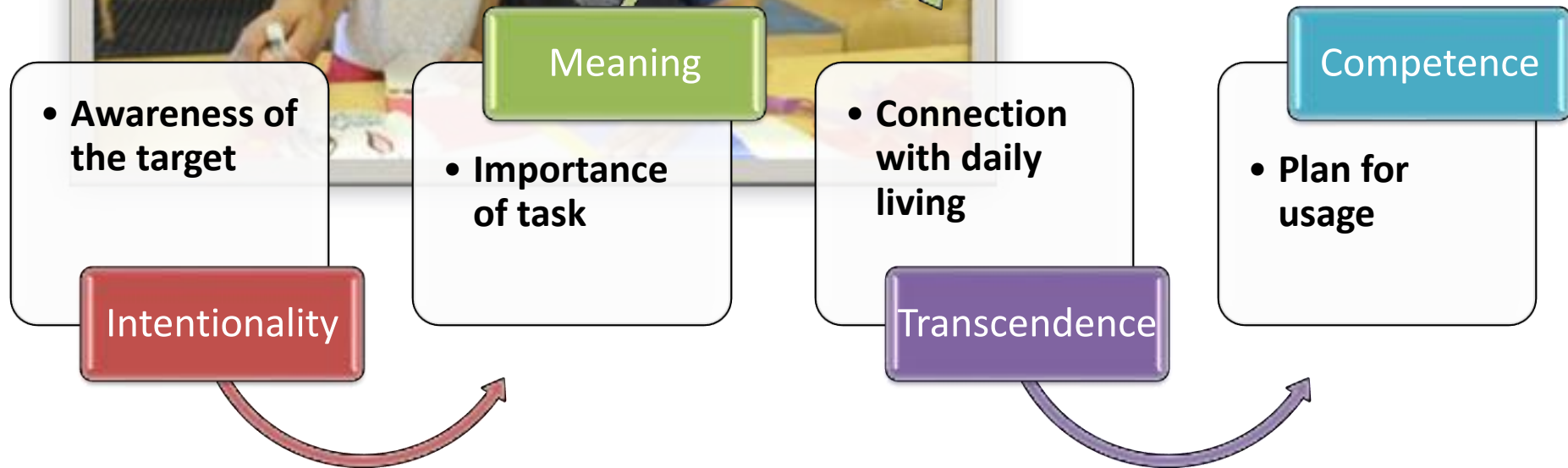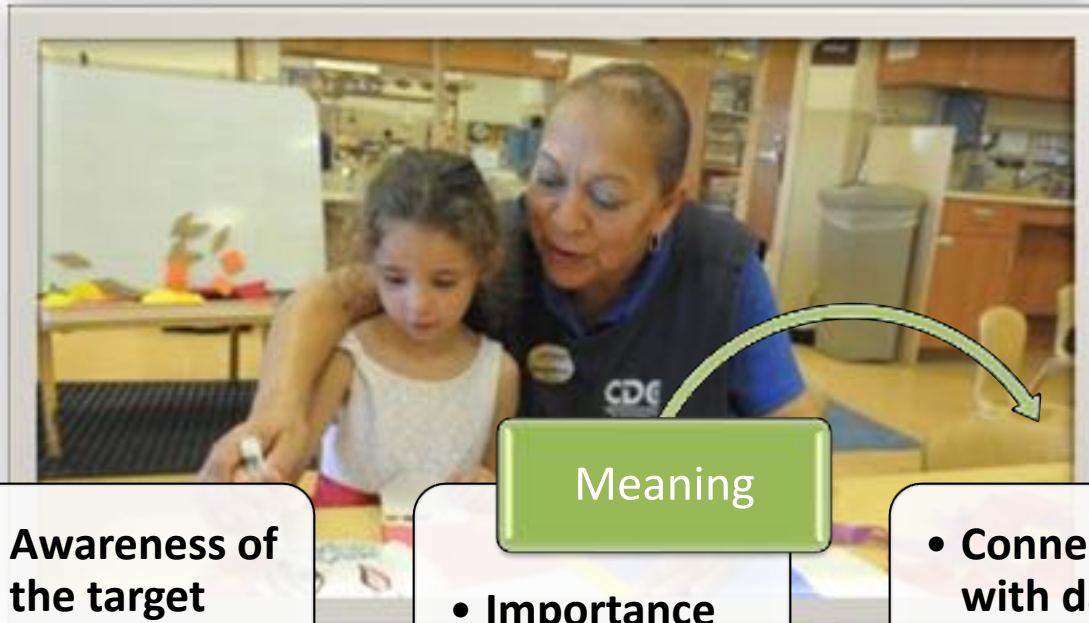(Lidz & Peña, 1996; Peña, Gillam, & Bedore, 2014)

Teaching Phase
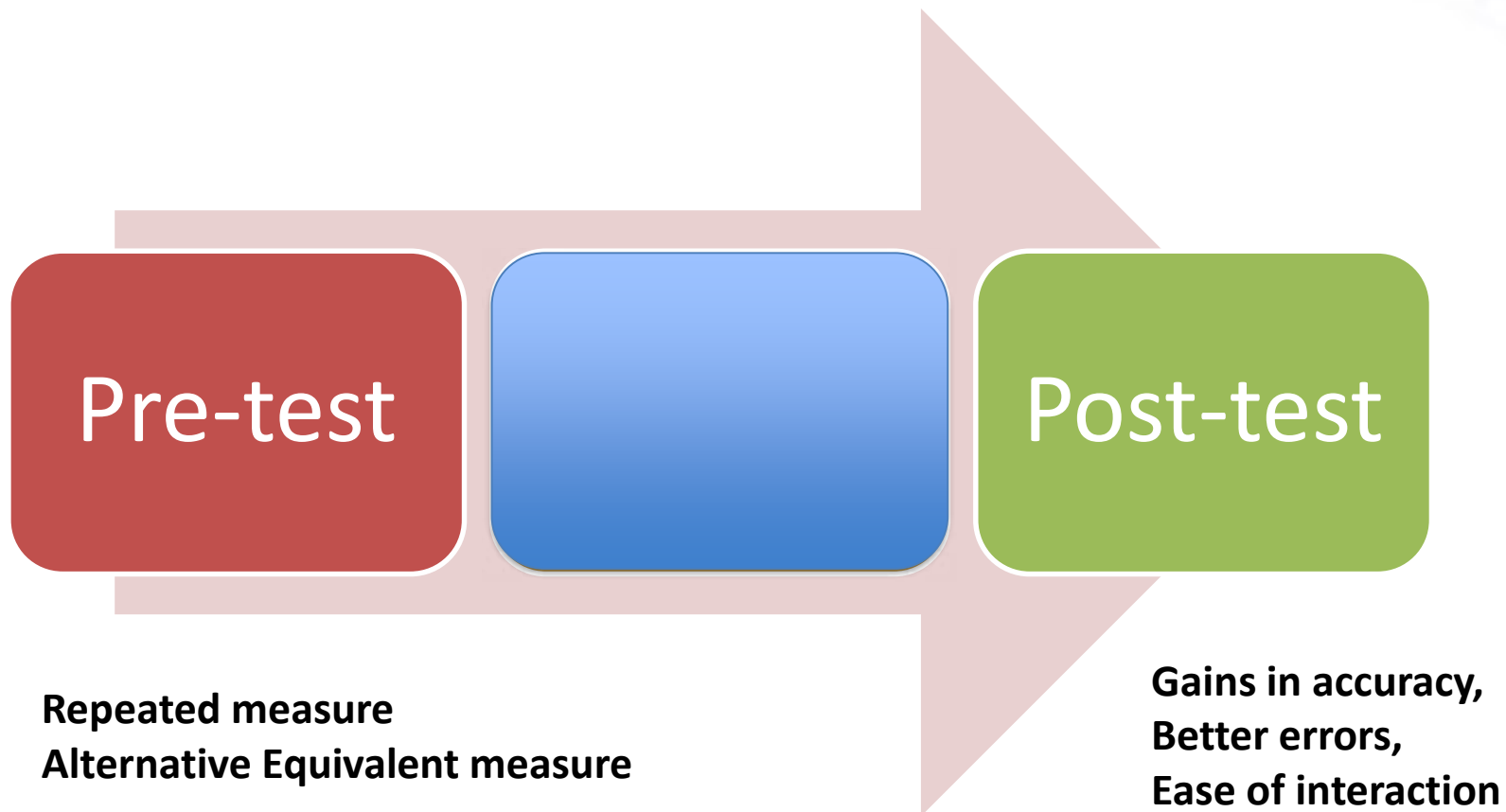
Mediated Learning Experience
Modifiability

Mediated Learning Experience

(Feuerstein, 1979; Gutiérrez-Clellen, & Peña, 2001; Peña, Iglesias, & Lidz, 2001)

Meaning

Competence

- **Awareness of the target**

- **Importance of task**

- **Connection with daily living**

- **Plan for usage**

Intentionality

Transcendence

Observe Modifiability
(Petersen, et. al, 2017; Gutierrez-Clellen & Pena, 2001)

Child Responsivity

Slight	Moderate	High-Moderate	Extreme
0	1	2	3

Examiner Effort

Slight	Moderate	High-Moderate	Extreme
0	1	2	3

Transfer

Low	Medium	High
0	1	2

Test-Teach-Test Approach

Word learning
(Kapantzoglou, Restrepo, & Thompson, 2012; Peña, Iglesias, & Lidz, 2001)

Use of semantic categories with American Sign Language
(Mann, Peña, & Morgan, 2015),

Assess narrative
(Miller, Gillam, & Peña, 2001; Peña et al., 2014; Petersen et al., 2017)

Dynamic Assessment

Test-Teach-Test Approach

Graduated Prompt Approach

Graduated Prompt Approach

(Campion & Brown, 1987; Gutiérrez-Clellen & Peña, 2001; Ram, Marinellie, Benigno, & McCarthy, 2013)

- Simultaneous merger of testing & instruction

- Children presented with 1 test item at a time

- Begins "static"

- Correct production = next item, or increase in complexity of task

- Error production = graded series of cues; number & type based on child need

Graduated Prompt Approach

Morphological analysis
(Larsen & Nippold, 2007; Ram et al., 2013; Wolter & Pike, 2015)

Requests for information by children with autism
(Donaldson & Olswang, 2007)

Expressive syntax for children who use augmentative and alternative communication   (Binger, Kent-Walsh, & King, 2017)

Eye-gaze in children with severe disabilities
(Olswang, Feuerstein, Pinder, & Dowden, 2013)
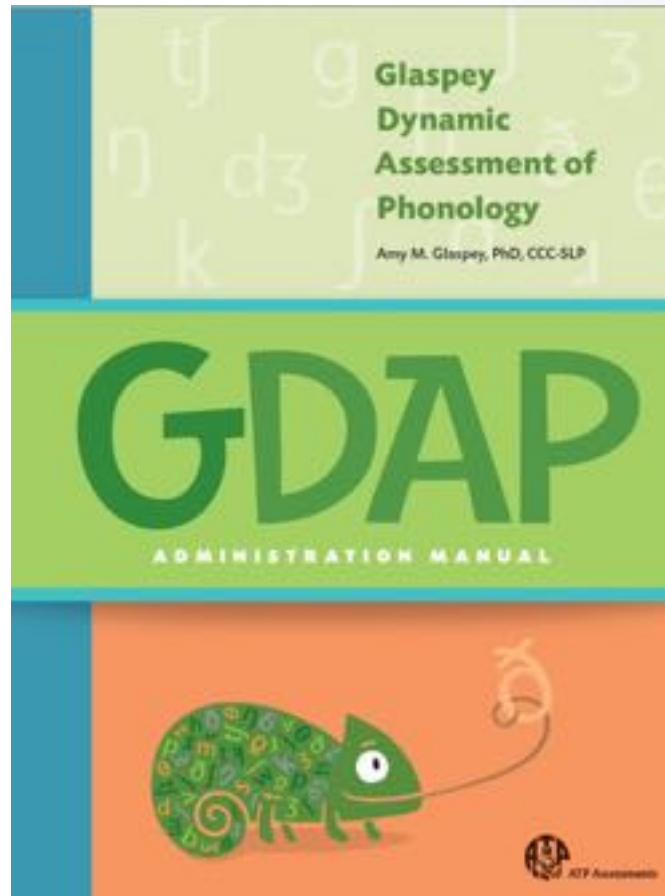
GLASPEY DYNAMIC ASSESSMENT OF PHONOLOGY
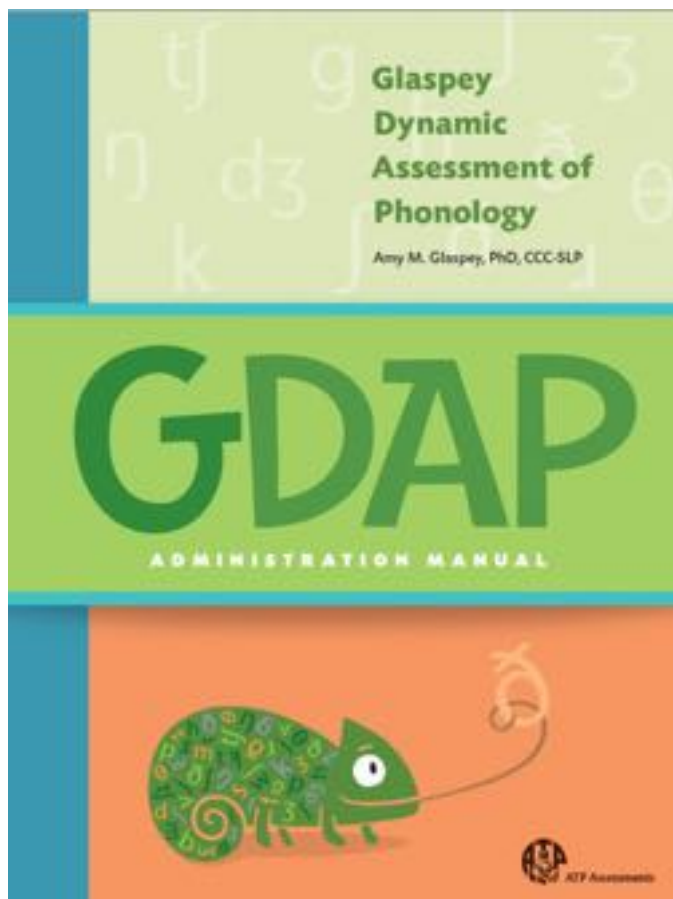
- Graduated prompt approach
- Used to measure speech sound production and speech adaptability
- Ages 3-10
- Incorporates Vygotsky's social development theory along with stimulability and speech adaptability procedures
- Used for diagnostic and prognostic purposes, or to monitor progress and document treatment efficacy.

Speech Adaptability

The amount of assistance and cues a child needs to produce speech sounds; thus, the *GDAP* is used to determine the child's speech sound errors, and also the extent of help a child needs (Glaspey, 2012; Glaspey & MacLeod, 2010).

GDAP Targets Assessed

- Individual Phonemes

- Sound Classes

- Structures: syllables, clusters, initial/final word position effects

- Overall Total Score

GDAP Item-Score Interpretation

Cue Levels → / Environments ↓	Spontaneous production, no support	Instruction + verbal model	Instruction, verbal model, + prolongation/ segmentation	Instruction, verbal model, prolongation/ segmentation, + tactile cue
Connected Speech	1			
2-target sentence	2	3		
4-word Sentence	4	5		
3-word Sentence	6	7	8	9
Word	10	11	12	13
Isolation				14
Not Stimulable				15

GDAP Item-Score Interpretation

Hole in 1 →

Cue Levels → / Environments ↓	Spontaneous production, no support	Instruction + verbal model	Instruction, verbal model, + prolongation/ segmentation	Instruction, verbal model, prolongation/ segmentation, + tactile cue
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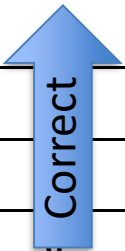| Cue Levels → / Environments ↓	Spontaneous production, no support	Instruction + verbal model	Instruction, verbal model, + prolongation/ segmentation	Instruction, verbal model, prolongation/ segmentation, + tactile cue
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Correct

Error

Raw Scores

Target	Whole-Word Transcription	Omit (/)	Sub or Dis	Connected Speech / 2-Target Sentence / 2-Target Sentence: Vm / 4-Word Sentence / 4-Word Sentence: Vm / 3-Word Sentence / 3-Word Sentence: Vm / 3-Word Sentence: Vm, P/S / 3-Word Sentence: Vm, P/S, T / Word / Word, Vm / Word, Vm, P/S / Word, Vm, P/S, T / Isolation / Not Adaptable
Velars				
18. comb	dam	/k-/	d-	1 2 3 4 5 6 7 (8) 9 10 11 12 13 14 15
19. hook	hird	/-k/	-d	1 2 3 4 5 6 7 8 (9) 10 11 12 13 14 15
20. gum	dam	/g-/	d-	1 2 3 4 5 6 7 (8) 9 10 11 12 13 14 15
21. bug	bnd	/-g/	-d	1 2 3 4 5 6 7 8 9 10 11 12 13 (14) 15
22. song	han	/-ŋ/	-n	1 2 3 4 5 6 7 8 9 10 11 12 13 (14) 15

Velars total score ___53___

SOUND CLASSES	SOUND CLASS SCORES			
	Raw Score	(Table B.3) Scaled Score	(Table B.5) Confidence Interval 90% 95%	(Table B.6) Percentile Rank
1. Syllables	3	10	5.81 —— 14.19	50
2. Glides	+ 12	6	3.49 —— 8.51	9
3. Nasals	+ 30	5	2.84 —— 7.16	5
4. Stops	+ 36	1	1.0 —— 2.96	<1
5. Velars	+ 19	7	3.21 —— 10.79	16
6. Stridents	+ 81	3	1.29 —— 4.71	1
7. Interdentals	+ 14	8	6.66 —— 9.34	25
8. Liquids	+ 30	5	1.82 —— 8.18	5
9. Clusters	+ 10	9	6.13 —— 11.87	37

	Total Raw Score	(Table B.4) Standard Score	(Table B.5) Confidence Interval 90% 95%	(Table B.6) Percentile Rank
Overall Score	= 235	62	55.24 —— 68.76	1

Using these Scores

- Comparing to normative sample
- Diagnosing a speech sound disorder
- Planning treatment
- Monitoring progress
- Advocating for service needs

Conclusion

Benefits of Dynamic Assessment

- Measure learning potential rather than just what a child already knows
- Differentiate learners and their skills
- Sample Treatment
- Reduce Test Bias
- Better identify Difference vs. Disorder
- Measure change over time with sensitivity