Point-to-Point Comparison

It is suggested that one of the easiest ways of comparing the Single Word Articulation Tests with a spontaneous speech sample is to compare the sounds in error in the two samples.

First, record the sounds produced in error on the Single Word Articulation Test (SWA).

Next, record the sounds in error in the spontaneous speech sample. The parent/teacher form could be used for this. Then compare the sound in error for the two samples. If it is the same sounds in error, it would suggest that the standardized test is a good representation of the sample. If they do not match, you will need to do one of the more comprehensive types of informal assessment.

The following table will assist in making the analysis.

Comparison of Single Word Articulation and Spontaneous Speech Sample Error Sounds		
Single Word Articulation Test (SWA)	Spontaneous Word Sample (SWS)	Comparison
Initial Position Errors	Initial Position Errors	Produced in error on SWA, but correct on SWS
		Produced in error on SWS, but correct on SWA
Medial Position Errors	Medial Position Errors	Produced in error on SWA, but correct on SWS
		Produced in error on SWS, but correct on SWA
Final Position Errors	Final Position Errors	Produced in error on SWA, but correct on SWS
		Produced in error on SWS, but correct on SWA

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The following table will assist in making the analysis.

Comparison of Single Word Articulation and Spontaneous Speech Sample Error Sounds		
Single Word Articulation Test (SWA)	Spontaneous Word Sample (SWS)	Comparison
Initial Position Errors st sk skw sp str	Initial Position Errors st sk skw sp str	Produced in error on SWA, but correct on SWS
sp str sw θ ð r l	sl sw θ ð r l f v	Produced in error on SWS, but correct on SWA
Medial Position Errors	Medial Position Errors	Produced in error on SWA, but correct on SWS
		Produced in error on SWS, but correct on SWA
Final Position Errors	Final Position Errors	Produced in error on SWA, but correct on SWS
		Produced in error on SWS, but correct on SWA

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Single Word Articulation Test (SWA)	Spontaneous Word Sample (SWS)	Comparison
Initial Position Errors θ ð r l	Initial Position Errors st sk skw sp str sl sw θ ð r l f v	Produced in error on SWA, but correct on SWS Produced in error on SWS, but correct on SWA
Medial Position Errors	Medial Position Errors	Produced in error on SWA, but correct on SWS Produced in error on SWS, but correct on SWA
Final Position Errors	Final Position Errors	Produced in error on SWA, but correct on SWS Produced in error on SWS, but correct on SWA

Practice in Percentage of Consonants Correct (PCC)

Practice #1

Standardized test errors: /r/ (IMF), /θ/ (IMF), /ʧ/ (IMF), /ʤ/ (IMF)
Parent report: can't say /r/ and /θ/
Teacher report: can't say /θ/ and /l/

Articulation Test Results:

Word	Transcription	# Consonants	# Consonants Correct
rat			
mom			
carry			
car			
thumb			
bathtub			
bath			
dad			
love			
pillow			
ball			
table			
church			
judge			
Total			

Percentage of Consonants Correct in Single Words:

Spontaneous Speech Sample:

match			
dad			
chimney			
badges			
mom			
this			
mother			
toothbrush			
bridge			
capitol			
pitcher			
worry			
crawling			
bed			
Total			

Percentage of Consonants Correct in single Words:

Practice in Percetage of Consonants Correct (PCC)

Practice #2
Standardized test errors: /k/ /g/ /ŋ/ and blends
Parent report: /k/ /g/ /l/ /θ/ /r/ /θ/ /ʧ/ /ʃ/ /s/ /z/
Teacher report: /k/ /g/ /l/ /θ/ /r/ /θ/ /ʧ/ /ʃ/

Articulation Test Results:

Word	Transcription	# Consonants	# Consonants Correct
rat			
mom			
carry			
car			
thumb			
bathtub			
bath			
dad			
love			
pillow			
ball			
table			
church			
judge			
Total			

Percentage of Consonants Correct in Single Words:

Spontaneous Speech Sample:

match			
dad			
chimney			
badges			
mom			
this			
mother			
toothbrush			
bridge			
capitol			
pitcher			
worry			
crawling			
bed			
Total			

Percentage of Consonants Correct in single Words:

Calculation of the Consistency Index

Joe Speech Sample (Jerry Story from G-F) Age 6-10

Target	Errors			Total
	Initial	Medial	Final	
m				
n				
ng				
p				
b				
t				
d				
k				
g				
w				
f				
v				
voiceless th				
voiced th				
S				
Z				
sh				
h				
ch				
j				
l				
r				
y				
Total of all Errors:				

***considered /n/ for /ng/ typical production for age of student**

Practice with Consistency Index (CI)

Practice #1
Standardized test errors (single words)

house /haʊt/
thumb /fʌm/
mouth /maʊf/
yellow /jɛwo/
lamp /wæmp/
scissors /tɪtəɹt/

Target	Substitutions	Total
rat		
mom		
carry		
car		
thumb		
bathtub		
Total		

Spontaneous Speech Sample:

The bears eat with big teeth. The food same like humans maybe,
/wɪb/ /tiv/ /kɛm/ /jaɪk/

berries and nuts fishes and jelly. Honey is the best. Bees don't
/nʌtθ / /fɪʃəθ/ /ʤɛbɪ/ /ɪð/ /bɛt/ /bið/

sting him because his coat is so shaggy. The bear's coat is not soft.
/θtiŋ/ /bətɔs/ /hɪt/ /ɪð/ /ðo/ /berθ/ /ɪ/ /tɔft/

Bears have little teeth and long sharp teeth.
/tɪto/ /tif/ /sɔŋ/ /tis/

Target	Substitutions	Total
/s/		
/θ/		
/l/		
/z/		
/k/		

Comparison of Consistency Index in Single Words to Spontaneous Speech:

Practice with Consistency Index (CI)

Practice #2
Standardized test errors (single words)

house **/haʊt/** **/haʊ/**
thumb **/sʌm/**
mouth **/maʊf/**
yellow **/jɛwo/**
lamp **/jæmp/**
scissors **/kɪdəɹt/**

Target	Substitutions	Total
s		
/θ/		
/l/		
/z/		

Spontaneous Speech Sample:

The bears eat with big teeth. The food same like humans maybe,
/wɪb/ **/tiv/** **/jaɪk/**

berries and nuts fishes and jelly. Honey is the best. Bees don't
/nʌtθ / /fɪʃəθ/ **/ɪð/** **/bɛt/** **/bið/**

sting him because his coat is so shaggy. The bear's coat is not soft.
/θtiŋ/ **/bətɔs/** **/ɪð/ /ðo/** **/berθ/** **/tɔft/**

Bears have little teeth and long sharp teeth.
/tif/ **/jɔŋ/** **/tis/**

Target	Substitutions	Total
/s/		
/θ/		
/l/		
/z/		
/k/		

Comparison of Consistency Index in Single Words to Spontaneous Speech:

Joe - Speech Sample Age 6-10

ringing	
playing	**pwɛIn**
With	**wI**
his	
drum	**ʤrʌm**
and	æn
ball	ba
wagon	
making	mɛIn
too	
much	**mʌts**
noise	noI
mom	
makes	
him	
stop	
dropped	**ʃrapt**
soap	
finding	
spilled	**pIlt**
brand	**bwoun**
new	
blue	
pajamas	**məʤamə**
toothpaste	fupɛst
happen	
in	
this	
bad	
night	
thinks	**sInks**
lays	
down	
the	**di**
light	**waIt**
daddy	
finally	
was	

up	
foot	
ripped	**wIp**
these	**dis**
cushions	
glasses	**gwæθɛs**
her	
need	ni
some	ʃʌ
they	de
covered	**koftId**
live	**wIv**
together	**təgɛdɚ**
once	**wʌnʃ**
there	dɛr
asleep	
girl	
named	
Jack	
Rachel	
already	ardI
got	**ga**
Shirt	
caught	
by	
her	
zipper	**sIpɚ**
jacket	

Calculation of the Consistency Index

Joe, Spontaneous Sample (Jerry Story) Age 6-10

Target	Errors			Total
	Initial	Medial	Final	
m			Ø	1
n				
ng				
p	m			1
b				
t	f		Ø	2
d	ʤ, ʃ		Ø, t, n	5
k		Ø		1
g				
w				
f				
v		ft		1
voiceless th	s	Ø	Ø	2
voiced th	d	d		1
S	Ø, ʃ	θ	Ø, ʃ	3
Z	s		Ø, s	2
sh				
h				
ch			ts	1
j				
l	w	w, Ø	Ø	2
r	w	w		1
y				
Total of all Errors:				23

Joe Age 6-10

GOLDMAN-FRISTOE TEST OF ARTICULATION-2

The Goldman-Fristoe Test of Articulation-2 uses a series of pictures to assess the percentage of consonant sounds correctly articulated. It also provides a means for comparing articulation in a simple response with that occurring in contextual speech through story retelling.

Date Administered: 00/00/00, by_____,Speech-Language Pathologist

	Total Number of Errors	Percentile Rank
Articulation	18	8

Interpretation: Joe's performance on this single word test of articulation was within the range expected when compared to his peers by Plano ISD guidelines.

Joe does present with several articulation errors including:
substitution errors: w/l ("wook" for "look"), w/r ("wed" for "red"), d/th, s/th, and th/s
omission of final "l"
substitutions in consonant clusters ("gwasses" for "glasses")

These errors are considered developmental in nature. During a structured story retell task Joe showed similar errors. Joe's elevated performance on these two tasks may have been influenced by his years of experience in the speech therapy setting. It should be noted that Joe has increased concentration and decreased rate in such familiar structured tasks and therefore increased accuracy.

KHAN-LEWIS PHONOLOGICAL ANALYSIS 2

The Khan-Lewis Phonological Analysis is a norm-referenced, in-depth analysis of overall phonological process usage that serves as a companion tool to the Goldman-Fristoe 2 Test of Articulation sounds in words. Percentile scores are used to determine concern/no concern regarding the presence of phonological processes.

Interpretation: Joe had a total raw score of 18 with a percentile of 14. This is not in the range of concern by Plano ISD guidelines. Liquid Simplification (w/l) occurred 36% of the time in single words. In addition, stridency deletion (substitution of interdental production: th/s), deletion of final consonants, and cluster simplification (t/tr) were noted. These findings are consistent with data obtained by the speech-language pathologist during therapy. Increasing consistent production of these sounds in conversational speech is recommended.

INFORMAL EVALUATION MEASURES OF ARTICULATION

A narrative (story re-tell) speech sample was analyzed for errors to determine if the single word articulation test adequately measured sound substitutions. Joe was noted to be inconsistent in his productions, therefore the following informal measure was used.

Consistency Index Results:
The Consistency Index (CI) is a measure of the number of different ways consonant sounds are produced at the single word level and at the connected speech level. Joe's score in the CI in single words was 9, while his score in connected speech was 24. This difference is indication of concern in that he uses more substitutions in connected speech than in single word productions. This information is also consistent with parent and teacher concern that there are more errors in conversational speech.