



Evaluation Report



Jonathan

DOB: 02/05/2013

Age: 5 yr 0 mo

Date of Administration: 02/05/2016

Type of Testing: Full Assessment

Raw Score: 126

Is English this child's first language: Yes

Jonathan 's articulation skills were evaluated on **02/05/2016** utilizing the **Articulation Assessments Toolkit**. The Articulation Assessments Toolkit (**AAT**) is an individually administered qualitative clinical tool for screening, identification, diagnosis and follow-up evaluation of articulation skills in English speaking individuals. The Articulation Assessments Toolkit can be used with individuals of all age groups; it provides qualitative information regarding a student's articulation skills. Jonathan 's articulation assessment yields a raw score of **126** out of a total of 187 possible points. The raw score of Articulation Assessments Toolkit is the total number of phonemes targeted minus the number of errors. The higher the raw score, the fewer errors were demonstrated by the child. It is important to take into consideration that SAPT does not take into consideration developmental norms; therefore, despite the presence of errors some of the student's articulation errors may be developmentally appropriate. Jonathan 's overall intelligibility rates were 90% in single word and 60% in conversational speech. This is a subjective measurement of how well this individual was understood by the evaluator during the assessment despite his or her articulation or phonological difficulties. Poor speech intelligibility can interfere with communication. Generally speaking, a child should be **70%** to **80%** intelligible or more by the age of 3.

Results obtained on this session are presented and explained below:

1. Position of Phoneme in the Word

The SAPT assesses each phoneme in every position in the word. The results by position in the word are a valuable tool in identifying patterns of errors in specific positions rather than specific phonemes (e.g. "initial consonant deletion"). The results obtained during this evaluation are presented below:

Initial: **65.9%** accuracy

Medial: **85.2%** accuracy

Final: **55.6%** accuracy

2. Manner of Articulation

Manner of articulation is a parameter used to describe how the structures involved in producing speech operate to produce a consonant. The Articulation Assessments Toolkit analyses the overall accuracy of each manner of articulation, as well as in relation to the position of the consonant in the word.

Fricative: 96.6% accuracy

Phoneme	Initial	Medial	Final
/s/	1/1	1/1	2/2
/f/	4/4	1/1	1/1
/v/	1/1	1/1	2/2
/z/	1/1	1/1	3/3
/h/	2/2	0/0	0/0
/ð/	1/1	1/1	0/0
/ʃ/	2/2	1/1	1/1
/θ/	1/1	0/0	0/1

Cluster: 18.2% accuracy

Phoneme	Initial	Medial	Final
/sn/	0/1	1/1	0/0
/br/	0/1	1/1	0/0
/kr/	0/1	0/0	0/0
/fl/	0/1	0/0	0/0
/fr/	0/1	0/0	0/0
/kl/	0/1	0/0	0/0
/st/	0/1	0/0	0/0
/tr/	0/1	0/0	0/0
/sw/	0/1	0/0	0/0

Liquid: 53.3% accuracy

Phoneme	Initial	Medial	Final
/l/	1/1	2/2	1/4
/r/	0/1	2/2	2/5

Nasal: 80% accuracy

Phoneme	Initial	Medial	Final
/n/	1/1	1/1	1/3
/ŋ/	0/0	2/2	1/1
/m/	5/5	1/1	0/1

Glide: 100% accuracy

Phoneme	Initial	Medial	Final
/w/	0/0	1/1	0/0

Plosive: 60.7% accuracy

Phoneme	Initial	Medial	Final
/k/	2/4	1/2	2/2
/b/	2/2	1/1	1/1
/t/	0/1	0/1	2/5
/d/	1/1	2/2	0/1
/g/	0/1	1/1	1/1
/p/	0/0	1/1	0/1

Affricate: 40% accuracy

Phoneme	Initial	Medial	Final
/dʒ/	1/1	0/1	0/1
/tʃ/	1/1	0/1	0/0

3. Voicing Feature

Voicing is a feature that makes a distinction between consonants produced when the vocal folds come into contact and vibrate, called voiced consonants; and consonants produced without vibration of the vocal folds or voiceless consonants.

Voiceless consonants include: [p] [t] [k] [f] [s] [ʃ] [θ] [h]

Voiced consonants are the following: [b] [d] [g] [m] [n] [ŋ] [v] [z] [w] [ʒ] [ʒ] [r]

Voiced: 75% accuracy

Voiceless: 70.3% accuracy

4. Words

See below all words administered on the Articulation Assessments Toolkit, their respective standard phonetic transcription and the errors marked by the test administrator.

Phonemes marked in **Green** identify targeted phonemes

Phonemes marked in **Red** identify errors identified by test administrator

Phonemes marked in **Black** identify consonants not targeted by this screener

Word	Transcriptions/Errors	Comments	Word	Transcriptions/Errors	Comments
Snake	snɛk		Finger	fɪŋgɛw	Gliding
Bicycle	bajsaɪkəl		Arm	ɑrm	Deletion
Fork	fɔrk		Lion	laɪən	Deletion
Elephant	ɛləfənt		Goat	gɔt	Fronting, Deletion
Vase	ves		Tiger	taɪgɛw	Deletion, Gliding
Zebra	zɪbrə		Monkey	mɛŋti	Fronting /t/

House	haʊs		Butterfly	bətərflaj	Deletion
This	ðis		Medal	mɛdəw	Gliding
Jar	dʒɑr		Apple	æpəw	Gliding
Chair	tʃɛr		Rabbit	wæbɪt	Gliding, Backing
Shovel	ʃəvəl		Bread	bɛd	Cluster Reduction /b/, Backing
Knife	najf		Ship	ʃɪp	Backing
Dove	dəv		Crab	kæb	Cluster Reduction /k/
Thumb	θəm		Carrot	tærət	Fronting /t/
Fishing	fɪʃɪŋ		Flowers	fawərz	Cluster Reduction /f/
Fish	fɪʃ		Frog	fɒg	Cluster Reduction /f/
Scissors	sɪzərz		Clown	kawn	Cluster Reduction /k/
Olive	əlɪv		Stars	sɑrz	Cluster Reduction /s/
Mouth	mawθ	Deletion	Tree	twi	Gliding
Mother	məðəw	Gliding	Snail	sel	Cluster Reduction /s/
Magician	mæʒɪʃən	Deaffrication, Deletion	Swan	san	Cluster Reduction /s/
Cage	keɜ	Deaffrication	Shoe	ʃu	
Hatchet	hætʃət	Depalatzation, Deletion	Book	bʊk	Distortion
Camel	kæməw	Gliding	Boy	bɔɪ	
Candle	tændəl	Fronting /t/	You	ju	

5. Analysis of place of articulation at the word level

The phonemes assessed were also analyzed according to their place of articulation. Place of articulation, also called point of articulation, refers to the location in the mouth used to produce the consonant sounds. See breakdown of production below:

Alveolar: 65.6%	Palatal: 58.8%	Velar: 71.4%
Inter-Dental: 75%	Glottal: 100%	Bilabial: 85.7%
Labiodental: 100%		

6. Error Type

This information pertains to the types of articulation errors and phonological processes exhibited by this child at the word level. Total percentage of error 28.6%.

2.9% of errors were Initial Consonant Deletion	Initial consonant deletion is generally eliminated by age of 4.0
2.9% of errors were Medial Consonant Deletion	This process is generally eliminated by age of 4.0
17.6% of errors were Final Consonant Deletion	Final consonant deletion is typically suppressed by 3.3 years.
23.5% of errors were Consonant Cluster Reduction	Cluster reduction is typically suppressed between the ages of 3.6-4years.
23.5% of errors were Gliding	Gliding is typically suppressed by 5 years.
11.8% of errors were Fronting	Velar Fronting is typically suppressed by 3-3.6 years
8.8% of errors were Backing	Backing is a process observed in children with phonological disorders.
5.9% of errors were Deaffrication	Deaffrication is eliminated by most children by age of 4.0
2.9% of errors were Depalatzation	

There is an enormous variation in the time it takes for children to master pronouncing specific sounds correctly. However,

it is natural for parents to want to know how their child's speech compares to other children the same age. See below a general acquisition timeline for the speech sounds in English:

Age of acquisition	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7
Phonemes	b, m, h, w, d	n, k, g, t, f	l, o	v, f, z, tf	n, s, z, r

7. Vowels

The evaluator has chosen to also assess vowels during this session. All English vowels were assessed at the word level; both singleton vowels and diphthongs were included. See detailed information below:

Singleton Vowels assessed include: /e/, /ɪ/, /ə/, /æ/, /o/, /ɛ/, /ɔ/, /i/, /u/, /ɒ/, /ɑ/

Diphthongs assessed were: /aʊ/, /aɪ/, /ɔɪ/, /ju/

Jonathan 's production of singleton vowels was 90.9% accurate and of diphthongs was 100% accurate.

Singleton Vowel: **90.9% accuracy**

Phoneme	Accuracy
/e/	1/1
/ɪ/	1/1
/ə/	1/1
/ɑ/	1/1
/æ/	1/1
/o/	1/1
/ɛ/	1/1
/ɔ/	1/1
/i/	1/1
/u/	1/1
/ɒ/	0/1

Diphthong: **100% accuracy**

Phoneme	Accuracy
/aʊ/	1/1
/aɪ/	1/1
/ɔɪ/	1/1
/ju/	1/1

Vowel production was further analyzed by the individual properties of vowels such as tongue height, tongue advancement and lip rounding. See detailed production accuracy below:

Tongue Advancement	Tongue Height	Lip rounding
Front: 100% accuracy	High: 75% accuracy	Rounded: 66.7% accuracy
Central: 100% accuracy	Mid: 100% accuracy	Unrounded: 100% accuracy
Back: 75% accuracy	Low: 100% accuracy	

Specific vowel errors produced by Jonathan were vowel deletions/vowel distortions/vowel substitutions. See details below:

- 0% of vowel errors were substitutions
- 0% of vowel errors were deletions
- 0% of vowel errors were lisps
- 100% of vowel errors were distortions

8. Sentences

The evaluation of sound production at the sentence level is one of the components of a comprehensive articulation and phonology assessment. The evaluator also assessed Jonathan 's articulation skills at the sentence level. The full assessment portion of the Articulation Assessment Toolkit assesses all consonants in all positions in the word at the sentence level. A total of eleven sentences were either read or repeated by the child.

The sentences below contain sounds in black, red, and green colors. The sounds in black were not targeted, the ones in

green were targeted and produced correctly and the sounds in red were targeted and produced incorrectly by Jonathan .

Sentences:

Sentence	
The man took a nap near the bunny and camel.	Reading
The wolf ate ham and kiwi by the doghouse.	Reading
The panda dropped the football he was juggling.	Repetition
The pigeon and goat are eating food in the tub.	Repetition
The duck found a yo-yo after opening the package.	Repetition
The green frog is a better singer than the giraffe.	Repetition
The blue witch is laughing at the teacher's chipmunk.	Repetition
The snail in the ship is sailing on the river.	Repetition
That glass vase has a thorny rose.	Reading
The zebra splashes as his mother tries to bathe him.	Repetition
After eating five desserts, the dancer's breath needs mouthwash.	Reading

Position:

The production of sentences were also analyzed by the position of the consonants in the word:

Initial: 59.3% accuracy	Medial: 60.9% accuracy	Final: 66.7% accuracy
-------------------------	------------------------	-----------------------

Manner of Articulation:

The phonemes were also analyzed according to their manner of articulation at the sentence level. See details below:

Fricative: 34.8% accuracy

Phoneme	Initial	Medial	Final
/h/	1/1	1/1	0/0
/f/	1/1	0/0	0/0
/ff/	0/0	0/0	1/1
/gh/	0/0	0/1	0/0
/sh/	0/1	0/1	0/1
/s/	1/1	0/0	1/1
/v/	0/1	0/1	1/1
/th/	0/2	0/2	0/2
/ss/	0/0	0/1	0/1
/z/	1/1	0/0	0/0
/c/	0/0	0/1	0/0

Plosive: 77.8% accuracy

Phoneme	Initial	Medial	Final
/p/	1/1	0/0	1/1
/b/	1/1	1/1	0/1
/k/	1/1	0/0	0/0
/d/	0/1	1/1	1/1
/pp/	0/0	1/1	0/0
/gg/	0/0	1/1	0/0
/g/	0/1	0/0	1/1
/t/	0/1	1/1	1/1
/ck/	0/0	1/1	1/1

Liquid: 100% accuracy

Phoneme	Initial	Medial	Final
/r/	1/1	1/1	1/1
/l/	1/1	1/1	0/0

Affricate: 83.3% accuracy

Phoneme	Initial	Medial	Final
/j/	1/1	0/0	0/0
/g/	0/0	1/1	1/1
/tch/	0/0	0/0	0/1
/ch/	1/1	1/1	0/0

Glide: 75% accuracy

Phoneme	Initial	Medial	Final
/w/	1/1	1/1	0/0
/y/	0/1	1/1	0/0

Cluster: 80% accuracy

Phoneme	Initial	Medial	Final
/gr/	1/1	0/0	0/0
/fr/	0/1	0/0	0/0
/bl/	1/1	0/0	0/0
/sn/	1/1	0/0	0/0
/gl/	1/1	0/0	0/0

Nasal: 42.9% accuracy

Phoneme	Initial	Medial	Final
/m/	0/1	0/1	1/1
/n/	0/1	0/0	0/0
/nn/	0/0	1/1	0/0
/ing/	0/0	0/0	1/1
/ng/	0/0	0/1	0/0

Alveolar: 62.5%	Palatal: 64.3%	Velar: 75%
Inter-Dental: 0%	Glottal: 100%	Bilabial: 72.7%
Labiodental: 50%		