



GFTA™-3 and KLPA™-3

Goldman-Fristoe Test of Articulation-3 & Khan-Lewis Phonological Analysis-3

GFTA-3/KLPA-3 Score Report

Ronald Goldman, & Macalyne Fristoe

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Name:	Thomas Khan
ID:	44444
Gender:	Male
Birth Date:	06/01/2008
Test Date:	06/03/2016
Age:	8 years 0 months
Grade:	Third Grade
School/Agency:	Valley View
Examiner:	R. Lewis
Primary Language:	English
Dialect:	none

Reason for testing:

Classroom teacher reports that the student's speech is difficult to understand.



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GFTA-3 SCORE SUMMARY

Sounds-in-Words Score Summary

Total Raw Score ¹	Standard Score ²	90% Conf. Interval	Percentile Rank	Age Equivalent	Growth Scale Value
85	40	38-51	<0.1	<2:0	486

¹ Raw score equals the total number of articulation errors.

² Normative information is based on gender.

Sounds-in-Sentences Score Summary

Total Raw Score ¹	Standard Score ²	90% Conf. Interval	Percentile Rank	Age Equivalent	Growth Scale Value
61	40	39-52	<0.1	6:11 or younger	457

¹ Raw score equals the total number of articulation errors.

² Normative information is based on gender.

Intelligibility Rating

Total of Good Ratings (1)	Total of All Ratings (1, 2, 3, 4)	Overall Intelligibility Rating	Intelligibility Percentage
0	10	0%	11 <90% 89 ≥90%

NARRATIVE REPORT

The Goldman-Fristoe Test of Articulation-Third Edition (GFTA-3) is a systematic means of assessing an individual's articulation of the consonant and consonant cluster sounds of Standard American English. It provides information about an individual's speech sound ability by sampling both spontaneous and imitative sound production in single words and connected speech. GFTA-3 provides age-based normative scores separately for females and males for the Sounds-in-Words and Sounds-in-Sentences tests. Intelligibility is reported as a percentage score, and Stimulability information is reported in table format.

Sounds-in-Words

The Sounds-in-Words test is used to evaluate an individual's articulation skill when labeling single words. The examiner presents a picture stimuli for the individual to label. The examiner scores each consonant and consonant cluster sound in the word as a correct or incorrect production. This test has a mean of 100 and a standard deviation of 15.

Thomas Khan received a standard score of 40 (confidence interval = 38 to 51, percentile rank = <0.1) on the Sounds-in-Words test. When compared to peers of the same age and gender, Thomas uses more sound change errors which results in a score that is in the very low/severe range.

Sounds-in-Sentences

The Sounds-in-Sentences test is used to evaluate an individual's articulation skill when producing words in connected speech. The individual listens as the examiner tells a short story that is accompanied by visual stimuli. After the initial retelling of the story, the examiner presents each sentence again, and the individual repeats the sentence. The examiner scores each consonant and consonant cluster sound in the targeted words from each sentence as a correct or incorrect production. This test has a mean of 100 and a standard deviation of 15.

Thomas received a standard score of 40 (confidence interval = 39 to 52, percentile rank = <0.1) on the Sounds-in-Sentences test. When compared to peers of the same age and gender, Thomas uses more sound change errors which results in a score that is in the very low/severe range.

Intelligibility

The Intelligibility rating is used to evaluate an individual's intelligibility in connected speech. During administration of the Sounds-in-Sentences test, the examiner listens to each sentence the individual repeats and rates the individual's intelligibility for that sentence as 1 (good), 2 (fair), 3 (poor), or 4 (no response). This measure reports the percentage of individuals, by age, who received an overall rating of 90% "good" ratings.

Thomas' connected speech was rated as "good" in 0% of his productions.

Stimulability

The Stimulability measure is designed to assess the sounds that were misarticulated during administration of the Sounds-in-Words test and/or Sounds-in-Sentences test. For the misarticulated sounds, the examiner produces them in a syllable, word, and sentence context, and the individual imitates the examiner's productions.

Thomas' Stimulability results are indicated in the following table.

		Correctly Imitated	Incorrectly Imitated
Initial	Syllable	p g v s z f t l	e ø dʒ rəʌz bl br dr fr gl gr kl kr kw pl pr sk sl sn sp spl st sw tr
	Word	p g v s z f t l	
	Sentence	g s	p v z f t l
Medial	Syllable	p t d k g n f v s z f l j	ŋ ø ʒ t rəʌz br
	Word	p t d k g n s	f v z f l j
	Sentence		p t d k g n s
Final	Syllable	p t k g m ŋ f v s z f t l	e rəʌz æt nʃ ndʒ nt st øz
	Word	p t k g m ŋ f v s z f t	l
	Sentence	p t ŋ	k g m f v s z f t

Sound Errors

	Position	% correct	Age of mastery (90%)
p	Initial	67% (2 correct/3 possible)	5:0 to 5:11
g	Initial	50% (1 correct/2 possible)	6:0 to 6:11
v	Initial	50% (1 correct/2 possible)	6:0 to 6:11
θ	Initial	0% (0 correct/1 possible)	>8:11
ð	Initial	0% (0 correct/1 possible)	7:0 to 7:11
s	Initial	50% (1 correct/2 possible)	4:6 to 4:11
z	Initial	50% (1 correct/2 possible)	5:0 to 5:11
ʃ	Initial	50% (1 correct/2 possible)	4:6 to 4:11
tʃ	Initial	0% (0 correct/2 possible)	4:6 to 4:11
dʒ	Initial	50% (1 correct/2 possible)	4:6 to 4:11
l	Initial	50% (1 correct/2 possible)	5:0 to 5:11
r	Initial	0% (0 correct/2 possible)	7:0 to 7:11
bl	Initial	0% (0 correct/1 possible)	5:0 to 5:11
br	Initial	0% (0 correct/2 possible)	7:0 to 7:11
dr	Initial	0% (0 correct/1 possible)	6:0 to 6:11
fr	Initial	0% (0 correct/1 possible)	7:0 to 7:11
gl	Initial	0% (0 correct/1 possible)	6:0 to 6:11
gr	Initial	0% (0 correct/1 possible)	6:0 to 6:11
kr	Initial	0% (0 correct/1 possible)	6:0 to 6:11
kw	Initial	0% (0 correct/1 possible)	4:0 to 4:5
pl	Initial	0% (0 correct/1 possible)	5:0 to 5:11
pr	Initial	0% (0 correct/1 possible)	7:0 to 7:11
sl	Initial	0% (0 correct/1 possible)	7:0 to 7:11
sp	Initial	0% (0 correct/1 possible)	5:0 to 5:11
st	Initial	0% (0 correct/1 possible)	5:0 to 5:11
sw	Initial	0% (0 correct/1 possible)	5:0 to 5:11
tr	Initial	0% (0 correct/1 possible)	6:0 to 6:11
p	Medial	0% (0 correct/1 possible)	2:6 to 2:11
t	Medial	50% (1 correct/2 possible)	8:0 to 8:11
k	Medial	33% (1 correct/3 possible)	4:0 to 4:5
g	Medial	0% (0 correct/2 possible)	3:0 to 3:5
ŋ	Medial	0% (0 correct/2 possible)	3:0 to 3:5
f	Medial	0% (0 correct/1 possible)	3:0 to 3:5
v	Medial	0% (0 correct/2 possible)	7:0 to 7:11
ð	Medial	0% (0 correct/1 possible)	8:0 to 8:11

s	Medial	0% (0 correct/2 possible)	5:0 to 5:11
z	Medial	0% (0 correct/1 possible)	3:6 to 3:11
ʃ	Medial	0% (0 correct/1 possible)	4:6 to 4:11
tʃ	Medial	0% (0 correct/1 possible)	4:6 to 4:11
dʒ	Medial	0% (0 correct/2 possible)	8:0 to 8:11
l	Medial	0% (0 correct/2 possible)	5:0 to 5:11
r	Medial	0% (0 correct/1 possible)	6:0 to 6:11
j	Medial	0% (0 correct/1 possible)	3:6 to 3:11
br	Medial	0% (0 correct/1 possible)	8:0 to 8:11
t	Final	0% (0 correct/2 possible)	4:6 to 4:11
k	Final	67% (2 correct/3 possible)	3:6 to 3:11
g	Final	50% (1 correct/2 possible)	4:0 to 4:5
m	Final	33% (1 correct/3 possible)	3:6 to 3:11
ŋ	Final	67% (2 correct/3 possible)	5:0 to 5:11
f	Final	67% (2 correct/3 possible)	3:0 to 3:5
v	Final	0% (0 correct/1 possible)	4:0 to 4:5
θ	Final	0% (0 correct/1 possible)	8:0 to 8:11
s	Final	67% (2 correct/3 possible)	8:0 to 8:11
z	Final	33% (1 correct/3 possible)	5:0 to 5:11
ʃ	Final	0% (0 correct/1 possible)	4:6 to 4:11
tʃ	Final	0% (0 correct/1 possible)	4:6 to 4:11
l	Final	0% (0 correct/5 possible)	7:0 to 7:11
r	Final	0% (0 correct/4 possible)	7:0 to 7:11
ə	Final	0% (0 correct/6 possible)	7:0 to 7:11
nt	Final	0% (0 correct/1 possible)	3:6 to 3:11

PHONETIC ERROR ANALYSIS

Single Consonants

Sounds-in-Words				Sounds-in-Sentences		
Sounds	Initial	Medial	Final	Initial	Medial	Final
p	-	b				--
b						
t		-	--			-
d					-	
k		t-	t		-	-
g	-	t-	d			
m			--			
n					-	
ŋ		n n	-			-
f		-	-		-	
v	-	b b	-	-	--	
θ	t		-			-
ð	d	d				
s	-	--	-			-----
z	-	-	--		s?	--
ʃ	s	s	s	s	ss	
ʒ					-	
tʃ	t t	-	t	t		
dʒ	-	-d		d	-	
l	w	-j	o o o o o		-	o - o o
ɹəɪz	w w	w	o o o o o o - o -	w	- w -	o -
w						
j		-				
h						

Symbol	Indicates
Δ	Distortion
-	Omission
Other phonetic symbol	Substitution

PHONETIC ERROR ANALYSIS (Continued)

Consonant Clusters

Sounds-in-Words				Sound-in-Sentences		
Sounds	Initial	Medial	Final	Initial	Medial	Final
bl	b -			b -		
br	b w b w	b w		b w		
ɜt						^ t
dr	d -					
fr	d -					
gl	g w					
gr	g w			g w g w g w g w		
kl				k - k -		
kr	k -					
kw	k -			- w		
nt			n -			
ntʃ						n -
ndʒ						n -
pl	p -			p w		
pr	p -					
sk				- k		
sl	- l			s -		
sn				- n		
sp	- p			- p		
spl				- p -		
st	- t			- t		- t
sw	- w					
tr	t -					
ɔz						- -

Symbol	Indicates
Δ	Distortion
-	Omission
Other phonetic symbol	Substitution

ERROR ANALYSIS

Sounds-in-Words Phonetic Error Analysis

Single Consonants

	Initial	Medial	Final
p	50	6	
b			
t		39	18 46
d			
k		11 34	54
g	23	28 30	44
m			17 34
n			
ŋ		11 30	22
f		33	19
v	39	35 60	59
θ	32		51
ð	46	43	
s	60	27 52	56
z	37	29	27 50
ʃ	20	40	13
tʃ	25 49	36	14
dʒ	38	39 50	
l	47	33 42	6 10 29 35 39
rɪə-lɜ	31 55	38	2 12 15 23 25 28 30 36 43 58
w			
j		34	
h			

Sounds-in-Words Phonetic Error Analysis (continued)

Consonant Clusters

	Initial	Medial	Final
bl	41		
br	40 43	37	
dr	17		
fr	44		
gl	27		
gr	45		
kr	53		
kw	9		
nt			33
pl	18		
pr	52		
sl	21		
sp	15		
st	58		
sw	22		
tr	54		

R Error Analysis

Sounds-in-Words R Error Analysis

ə-ə	12 15 28 30 36 43
r	31 38 55
er	25
ar	23 58
or	2
br	37 40 43
dr	17
fr	44
gr	45
kr	53
pr	52
tr	54

Vowel Error Analysis

Sounds-in-Words Vowel Error Analysis

Vowel errors are not calculated in the standard score, however this table is provided for documentation of any vowel errors.

i	Close, Front, Unrounded	37
ɪ	Close Close Mid, Front, Unrounded	13 22 27
e	Close Mid, Front, Unrounded	
ɛ	Open Mid, Front , Unrounded	33 39 42
æ	Open Open Mid, Front, Unrounded	27
ʌ	Open Mid, Back, Unrounded	
ə(ə)	Mid Mid, Central, Unrounded	6 10 12 15 28 29 30 33* 35 36 38 39* 39* 43 50*
ɑ	Open, Back, Unrounded	
ɔ	Open Mid, Back, Rounded	2
o	Close Mid, Back, Rounded	
ʊ	Close Close Mid, Central, Rounded	48
u	Close, Back, Rounded	34
aɪ	Diphthong	
aʊ	Diphthong	
ɔɪ	Diphthong	

* The target word has multiple occurrences of the same vowel sound.

Sounds-in-Sentences Story 2 Phonetic Error Analysis

Single Consonants

	Initial	Medial	Final
p			10 31
b			
t			28
d		19	
k		3	27
m			
n		30	
ŋ			30
f		3	
v	20	28 29	
θ			14
s			1 4 6 18 23
z		16 21	12 16
ʃ	8	12 15	
ʒ		29	
tʃ	22		
dʒ	6	20	
l		29	2 13 15 20
ɹəɪə	24	2 5 28	11 19

Sounds-in-Sentences Story 2 Phonetic Error Analysis (continued)

Consonant Clusters

	Initial	Medial	Final
bl	7		
br	3		
æt			8
gr	1 4 18 23		
kl	25 26		
kw	16		
ntʃ			17
ndʒ			5
pl	30		
sk	13		
sl	31		
sn	27		
sp	19		
spl	12		
st	10		3
ðz			26

GFTA-3 SPEECH SOUND ACQUISITION

Emergence of Sounds for Male

Ages at Which Phonemes Were Present in 50%, 75%, and 90% of the Normative Sample*

Age	Produced by 50% of children	Produced by 75% of children	Produced by 90% of children
2:0-2:5	ə v ɔ̃ j kw nt	n ŋ f s z ʃ ʎ l r w h	p b t d k g m
2:6-2:11	br tr	v	ə n f r w h
3:0-3:5	bl sp st sw	j nt	ŋ v s z ʃ ʎ ɔ̃ l
3:6-3:11	ð dr fr gl gr kr pl pr sl	kw st sw	j nt
4:0-4:5	θ	br kr pl sp	kw
4:6-4:11		pr sl tr	
5:0-5:11		ð dr fr gl gr	bl pl sp st sw
6:0-6:11		θ	ð br dr gl gr kr tr
7:0-7:11			θ fr pr sl
8:0-8:11			

*Manual, Appendix D, Table D.1

Mastery of Sounds for Male

Ages at Which 90% of the GFTA-3 Normative Sample Mastered Consonants and Consonant Clusters By Initial, Medial, and Final Position*

Age	Initial	Medial	Final
2:0-2:5			
2:6-2:11	m	p	
3:0-3:5	b d n f h	d g m ŋ f	p n f
3:6-3:11	k w	n z j	b d k m nt
4:0-4:5	t kw	b k	g v
4:6-4:11	s ʃ ʎ ɔ̃	ʃ ʎ	t ʃ ʎ
5:0-5:11	p z l j bl pl sp st sw	s l	ŋ z
6:0-6:11	g v dr gl gr kr tr	r	
7:0-7:11	ð r br fr pr sl	v	ə l r
8:0-8:11		t ð ɔ̃ br	θ s
>8:11	θ		

*Manual, Appendix D, Table D.2

KLPA-3 SCORE SUMMARY

KLPA-3 Score Summary

Total Raw Score	Standard Score	90% Conf. Interval	Percentile Rank	Age Equivalent
100	40	38-51	<0.1	<2:0

Core Phonological Processes Summary

	Phonological Process	Number of Occurrences	Total Possible Occurrences	Percent of Occurrences
Manner	Deaffrication (DF)	0	of 8 =	0%
	Gliding of liquids (GL)	10	of 20 =	50%
	Stopping of fricatives and affricates (ST)	10	of 48 =	21%
	Stridency deletion (STR)	19	of 42 =	45%
	Vocalization (VOC)	15	of 15 =	100%
Place	Palatal fronting (PF)	7	of 12 =	58%
	Velar fronting (VF)	6	of 23 =	26%
Reduction	Cluster simplification (CS)	15	of 23 =	65%
	Deletion of final consonant (DFC)	9	of 36 =	25%
	Syllable reduction (SR)	8	of 25 =	32%
Voicing	Final devoicing (FDV)	0	of 35 =	0%
	Initial voicing (IV)	1	of 33 =	3%

Supplemental Phonological Processes Summary

	Phonological Process	Number of Occurrences	Total Possible Occurrences	Percent of Occurrences
Manner	Affrication	0	of 151 =	0%
	Frication	0	of 111 =	0%
	Gliding (other)	0	of 81 =	0%
	Glottal replacement	0	of 159 =	0%
	Liquidization	0	of 124 =	0%
	Stopping (other)	0	of 59 =	0%
Place	Backing to velars or /h/	0	of 134 =	0%
Reduction	Deletion of initial consonant	1	of 58 =	2%
	Deletion of medial consonant	2	of 27 =	7%
Voicing	Initial devoicing	0	of 41 =	0%
	Medial devoicing	1	of 22 =	5%
	Medial voicing	1	of 11 =	9%

Vowel Inventory

	Phonological Process	Number of Occurrences	Total Possible Occurrences	Percent of Occurrences
Vowels	Vowel alterations	21	of 82 =	26%

Vowel Chart

	Front	Central	Back
High	i leaf		u zoo
	ɪ pig		ʊ cookie
Mid	e plate	ə zebra	o soap
	ɛ web	ʌ cup	ɔ frog
Low	æ hammer		ɑ watch

Diphthongs		
aʊ house	aɪ knife	ɔɪ boy

Processes Per Word (PPW) Summary

Item	Target Word	Core Processes per Word	Supplemental Processes per Word	Total Processes per Word
2	DOOR	1	0	1
6	APPLE	1	1	2
9	QUACK	1	0	1
10	TABLE	1	0	1
11	MONKEY	2	0	2
12	HAMMER	1	0	1
13	FISH	1	0	1
14	WATCH	3	0	3
15	SPIDER	3	0	3
17	DRUM	2	0	2
18	PLATE	2	0	2
19	KNIFE	2	0	2
20	SHOE	1	0	1
21	SLIDE	2	0	2
22	SWING	3	0	3
23	GITAR	2	0	2
25	CHAIR	4	0	4
27	GLASSES	2	0	2
28	TIGER	2	1	3
29	PUZZLE	2	1	3
30	FINGER	3	0	3
31	RING	1	0	1
32	THUMB	1	0	1
33	ELEPHANT	2	0	2
34	VACUUM	1	0	1
35	SHOVEL	3	0	3
36	TEACHER	2	1	3
37	ZEBRA	2	0	2
38	GIRAFFE	2	0	2
39	VEGETABLE	2	0	2
40	BRUSHING	2	0	2
41	BLUE	1	0	1
42	YELLOW	1	0	1
43	BROTHER	3	0	3
44	FROG	5	0	5
45	GREEN	1	0	1
46	THAT	2	0	2
47	LEAF	1	0	1
49	CHEESE	3	0	3
50	PAJAMAS	6	0	6
51	TEETH	1	0	1
52	PRINCESS	3	0	3
53	CROWN	1	0	1
54	TRUCK	2	0	2

55	RED	1	0	1
56	JUICE	2	0	2
58	STAR	3	0	3
59	FIVE	2	0	2
60	SEVEN	3	1	4

NARRATIVE REPORT

The Khan-Lewis Phonological Analysis-Third Edition (KLPA-3) is a norm-referenced analysis of an individual's speech development and phonological process usage. The analysis is used to identify frequency of usage of twelve Core Phonological Processes grouped into four types of processes (manner, place, reduction and voicing Processes), twelve Supplemental, and other processes used by the individual. The KLPA-3 requires the administration of the 60 target words of the Sounds-in-Words test in the Goldman-Fristoe Test of Articulation-Third Edition (GFTA-3). The target words are analyzed for sound changes and the sound changes are classified by phonological process(es). The total number of phonological processes included in the 12 Core Processes are converted into a series of scores (mean of 100 and a standard deviation of 15) based on age and gender-based norms.

Thomas' raw score converts to a standard score of 40 (confidence interval = 38 to 51, percentile rank = <0.1). When compared to peers of the same age and gender, Thomas uses more phonological processes which results in a score that is in the very low/severe range.

Thomas demonstrated 100 (raw score) individually produced sound changes on the KLPA-3. Specifically, Thomas demonstrated 4 Manner Process(es), 2 Place Process(es), 3 Reduction Process(es), and 1 Voicing Process(es) as accounted for by the core phonological processes. Definitions and examples for the 12 core, 12 supplemental and other phonological processes are available in the resource library and KLPA-3 manual.

KLPA-3 Vowel Alterations

On 21 occasions, Thomas altered a target vowel so that it became a different vowel. Eight Vowel Phonological Processes are included in the KLPA-3, drawing on the current literature regarding vowel alterations; the Vowel processes are described in more detail in the resource library and KLPA-3 manual. The Vowel Phonological Processes can be used in conjunction with the KLPA-3 Vowel Inventory located on the summary page of this report for a more in-depth vowel analysis.

KLPA-3 Phonological Processes per Word

Processes per word (PPW) is a measure of severity, represented by a ratio calculated by dividing the total number of phonological processes used by the number of words produced. The more phonological processes that are presented, the more severe a phonological disorder is considered to be. Thomas produced 105 phonological processes in 60 word productions for a PPW of 1.8.

KLPA-3 Dialectal Influence

Thomas' history was noted as having dialectal variation in his speech. Sound changes judged as dialectal variations are not scored as errors in GFTA-3. Therefore, KLPA-3 does not apply phonological processes to sound changes resulting from dialectal variations.

End of Report