

Appendix F

Processed data for sub-aim three to determine the context (L1NR, L1FR, L2NR or L2FR) in which variability was generally the greatest for each subject

Page 2-6

Assigned values of one to four indicative of the extent of variability regarding *vowel duration* across the four contexts for utterances in the *voiceless plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	3	1	2	4	2	1	3	4	1	3	4	2	4	3	1	2	2	3	4	1	3	1	2	4
“pet”/pet	4	2	1	3	2	4	3	1	4	1	3	2	2	4	1	3	1	2	4	3	4	2	3	1
“pit”/pit	4	2	3	1	2	3	1	4	1	2	3	4	1	2	3	4	3	4	1	2	3	1	4	2
“pad”/putt	4	2	1	3	4	2	3	1	4	2	1	3	2	3	1	4	4	2	3	1	4	1	3	2
“pap”/pup	4	2	3	1	4	1	2	3	4	3	2	1	2/3	2/3	1	4	2	3	1	4	2	4	3	1

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	1	3	2	4	1	4	2	3	4	1	2	3	1	3	4	2	2	4	3	1	1	4	3	2
“pet”/pet	3	4	1	2	2	3	1	4	2	3	4	1	2	4	1	3	1	2	3	4	2	4	1	3
“pit”/pit	2	3	1	4	2	3	1	4	1	4	2	3	2	3	1	4	1	4	3	2	2	3	1	4
“pad”/putt	3	2	4	1	1	3	4	2	3	1	2	4	4	2	3	1	1	2	4	3	3	2	4	1
“pap”/pup	3	4	2	1	3	1	4	2	4	2	3	1	2	1	3	4	1	3	2	4	3	2	4	1

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *vowel duration* across the four contexts for utterances in the *voiced plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	4	2/3	1	2/3	4	3	1	2	4	1	3	2	1	4	2/3	2/3	2	4	3	1	1	4	3	2
“bak”/buck	2	4	3	1	1	2	4	3	4	3	2	1	2	4	1	3	2	3	4	1	3	1	4	2
“bas”/bus	3	4	2	1	2	1	4	3	1	4	3	2	1	4	3	2	4	2	3	1	1	3	2	4
“bek”/back	4	1	3	2	1	3	4	2	3	4	1	2	1	2	3	4	4	2	1	3	3	4	1	2
“bed”/bet	4	2	3	1	2	1	4	3	2	1	4	3	4	2	3	1	1	4	2	3	1	4	3	2

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	4	1	2	2	4	1	3	1	4	2	3	2	4	3	1	2	4	3	1	2	4	1	3
“bak”/buck	3	4	1	2	3	4	2	1	4	2	3	1	3	2	4	1	3	4	2	1	3	4	2	1
“bas”/bus	3	4	2	1	2	4	1	3	4	3	2	1	2	1	4	3	1	4	2	3	2	4	3	1
“bek”/back	4	2	3	1	2	1	4	3	4	3	2	1	1	3	4	2	1	3	2	4	3	2	4	1
“bed”/bet	3/4	2	1	3/4	1	4	3	2	3	2	4	1	1	3	4	2	3	2	4	1	1	4	3	2

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *vowel duration* across the four contexts for utterances in the *voiceless fricative utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“set”/set	4	2	1	3	3	2	4	1	3	1	2	4	1	3	2	4	4	1	3	2	2	1	4	3
“vas”/fuss	1	2	3	4	2	1	4	3	1	4	3	2	1	4	2	3	1	3	2	4	3	1	4	2
“feit”/fête	4	3	1	2	2	4	1	3	4	2	1	3	1	2	4	3	3	2	1	4	1	2	4	3
“voet”/foot	3	1	4	2	2	4	1	3	2	1	3	4	2	4	3	1	2	3	1	4	3	4	2	1

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“set”/set	4	3	1	2	1	3	2	4	4	2	3	1	3	2	4	1	1	2	4	3	4	2	3	1
“vas”/fuss	2/3	4	1	2/3	2	1	3	4	3	2	1	4	2	4	3	1	1	4	2	3	2	4	1	3
“feit”/fête	4	3	1	2	4	3	1	2	4	2	3	1	1	3	2	4	1	4	2	3	2	4	1	3
“voet”/foot	4	1	2	3	4	3	1	2	4	3	2	1	3	4	1	2	1	3	4	2	4	3	1	2

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *utterance duration* across the four contexts for utterances in the *voiceless plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	3	4	2	1	3	4	2	1	2	1	4	3	4	2	3	1	2	4	3	1	4	3	1	2
“pet”/pet	1	4	2	3	2	4	3	1	3	2	1	4	2	1	3	4	1	2	4	3	3	1	4	2
“pit”/pit	1	2	4	3	4	1	3	2	1	2	4	3	1	2	3	4	2	1	4	3	3	2	4	1
“pad”/putt	4	1	2	3	3	2	4	1	3	4	2	1	2	1	4	3	2	4	1	3	4	1	3	2
“pap”/pup	4	2	3	1	2	3	1	4	2	4	3	1	4	1	2	3	4	1	3	2	1	3	4	2

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	2	4	1	3	4	3	2	1	4	3	2	1	3	4	1	2	3	1	2	4	4	3	1	2
“pet”/pet	4	2	1	3	3	2	4	1	2	1	4	3	4	2	3	1	3	4	1	2	4	2	3	1
“pit”/pit	2	4	1	3	3	4	2	1	4	3	1	2	2	1	3	4	1	3	2	4	2	3	1	4
“pad”/putt	3	1	2	4	3	4	1	2	2	1	3	4	3	4	1	2	2	3	1	4	2	4	1	3
“pap”/pup	1	4	2	3	2	4	3	1	2	1	4	3	4	3	2	1	3	4	2	1	3	4	2	1

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *utterance duration* across the four contexts for utterances in the *voiced plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	2	1	4	3	4	2	1	4	1	3	2	2	1	3	4	3	4	2	1	4	2	1	3
“bak”/buck	4	3	1	2	4	2	3	1	3	4	2	1	3	2	4	1	2	3	1	4	2	3	4	1
“bas”/bus	2	4	1	3	1	2	3	4	4	1	3	2	3	4	2	1	1	2	3	4	2	4	1	3
“bek”/back	3	1	2	4	2	3	4	1	2	4	1	3	1	2	4	3	3	1	2	4	2	3	1	4
“bed”/bet	4	3	1	2	4	3	2	1	2	1	4	3	1	3	2	4	3	1	4	2	1	4	3	2

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	4	1	2	4	3	1	2	2	3	1	4	1	3	2	4	2	1	3	4	3	2	1	4
“bak”/buck	2	1	4	3	2	3	4	1	3	4	1	2	2	4	3	1	1	4	2	3	2	4	3	1
“bas”/bus	1	4	3	2	3	4	2	1	3	4	1	2	4	2	3	1	4	1	2	3	4	1	3	2
“bek”/back	1	3	2	4	2	4	3	1	2	4	3	1	1	4	2	3	2	3	4	1	1	4	3	2
“bed”/bet	2	4	1	3	1	4	3	2	3	1	2	4	2	1	3	4	3	4	2	1	3	4	2	1

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *utterance duration* across the four contexts for utterances in the *voiceless fricative utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“set”/set	4	2	3	1	1	3	4	2	4	3	1	2	1	4	3	2	3	2	4	1	2	4	3	1
“vas”/fuss	3	1	4	2	4	1	3	2	3	2	4	1	2	3	1	4	2	3	1	4	3	1	4	2
“feit”/fête	1	3	2	4	4	1	2	3	2	1	4	3	2	3	1	4	1	4	3	2	4	3	1	2
“voet”/foot	1	4	2	3	4	1	3	2	4	2	3	1	3	1	4	2	4	3	1	2	4	3	2	1

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“set”/set	2	3	1	4	3	2	1	4	3	4	2	1	4	3	1	2	2	3	1	4	2	3	1	4
“vas”/fuss	2	1	4	3	4	1	2	3	3	2	1	4	3	1	2	4	2	3	1	4	3	1	2	4
“feit”/fête	1	4	2	3	3	2	4	1	3	4	1	2	4	3	2	1	2	3	1	4	2	4	1	3
“voet”/foot	2	4	1	3	4	3	1	2	4	1	2	3	3	4	1	2	3	1	2	4	4	2	1	3

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *utterance onset duration* across the four contexts for utterances in the *voiceless plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	4	2	1	3	1	3	4	2	1	3	4	2	2	4	1	3	1	4	2	3	3	4	2	1
“pet”/pet	4	3	1	2	1	3	4	2	3	4	1	2	3	4	1	2	1	2	3	4	3	1	4	2
“pit”/pit	4	2	3	1	2	4	1	3	1	4	3	2	1	4	2	3	1	4	3	2	2	4	3	1
“pad”/putt	4	3	2	1	2	3	4	1	2	1	3	4	1	4	2	3	4	3	2	1	1	3	4	2
“pap”/pup	4	1	3	2	2	3	1	4	1	2	3	4	2	4	1	3	2	4	3	1	1	4	2	3

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	1	3	2	4	2	4	3	1	2	3	1	4	2	3	1	4	3	1	4	2	1	3	2	4
“pet”/pet	2	4	1	3	3	1	4	2	2	4	1	3	3	2	1	4	4	2	1	3	3	2	1	4
“pit”/pit	1	3	2	4	3	2	4	1	1	2	3	4	1	2	4	3	4	2	3	1	1	3	4	2
“pad”/putt	1	3	2	4	3	2	4	1	4	2	1	3	1	2	4	3	3	4	1	2	1	2	3	4
“pap”/pup	2	3	1	4	4	3	2	1	2	4	1	3	1	4	2	3	3	1	4	2	2	3	1	4

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *utterance onset duration* across the four contexts for utterances in the *voiced plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	4	1	2	4	1	3	2	2	4	3	1	3	4	1	2	4	3	1	2	2	4	3	1
“bak”/buck	3	4	1	2	2	4	1	3	2	3	1	4	3	4	2	1	3	4	2	1	2	1	3	4
“bas”/bus	2	1	3	4	1	2	4	3	4	2	3	1	1	1	3	2	1	3	2	4	3	4	2	1
“bek”/back	3	4	2	1	4	3	1	2	2	4	3	1	4	4	3	2	2	1	4	3	1	2	4	3
“bed”/bet	3	4	1	2	2	1	3	4	2	1	4	3	1	4	2	3	2	1	3	4	4	3	1	2

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	2	1	4	4	2	3	1	1	3	2	4	4	1	3	2	3	2	4	1	3	4	1	2
“bak”/buck	2	3	1	4	3	2	4	1	2	3	1	4	2	3	1	4	4	2	3	1	2	4	1	3
“bas”/bus	2	4	1	3	4	2	3	1	4	2	1	3	1	2	3	4	3	1	4	2	2/3	2/3	1	4
“bek”/back	3	2	1	4	3	4	2	1	4	3	1	2	4	1	2	3	3	4	2	1	4	3	1	2
“bed”/bet	1	3	2	4	1	4	3	2	1	4	2	3	1	4	3	2	3	2	4	1	1	4	2	3

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *voice onset time* across the four contexts for utterances in the *voiceless plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	1	3	2	4	1	2	3	4	4	3	2	1	1	3	2	4	1	4	2	3	2	3	4	1
“pet”/pet	3	4	1	2	2	3	1	4	3	4	2	1	2	3	1	4	1	4	3	2	4	2	1	3
“pit”/pit	4	3	1	2	1	2	3	4	3	4	1	2	1	2	3	4	1	4	2	3	4	3	1	2
“pad”/putt	3	4	2	1	1	3	2	4	2	3	1	4	3	2	1	4	3	4	1	2	4	3	1	2
“pap”/pup	1	2	4	3	1	3	2	4	2	4	1	3	2	3	1	4	3	4	1	2	2	4	3	1

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“pak”/puck	2	3	1	4	2/3	2/3	1	4	1	3	2	4	1	3/4	2	3/4	3	1	2	4	1	3	2	4
“pet”/pet	2	3/4	1	3/4	3	2	4	1	3	2	1	4	1	4	2	3	4	1/2	1/2	3	3	2	1	4
“pit”/pit	1	4	2	3	2	4	1	3	1	3	2	4	4	1	2	3	3	2	1	4	2	3	1	4
“pad”/putt	2	3	1	4	1	4	2	3	4	2	1	3	1	4	3	2	2	1	4	3	1	4	2	3
“pap”/pup	1	4	2	3	2	3	1	4	2	4	3	1	2	3	1	4	3	1/2	1/2	4	1	4	2	3

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.

Assigned values of one to four indicative of the extent of variability regarding *voice onset time* across the four contexts for utterances in the *voiced plosive utterance group*

	AOS1				AOS2				AOS3				PP1				PP2				PP3			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	3	1	2	4	3	2	1	4	3	1	4	2	3	1	2	4	4	1	3	2	1	4	2	3
“bak”/buck	4	2	1	3	4	3	2	1	2	3	1	4	3	4	2	1	2	4	1	3	3	1	2	4
“bas”/bus	4	3	2	1	1	4	2	3	1	4	3	2	1	4	3	2	2	4	1	3	3	4	2	1
“bek”/back	4	2	1	3	4	3	1	2	1	2	4	3	3	1	2	4	4	1	3	2	1	2	4	3
“bed”/bet	3	4	2	1	1	2	3	4	2	1	4	3	1	3	4	2	2	4	1	3	3	1	4	2

	N1				N2				N3				N4				N5				NGR			
	L1		L2		L1		L2		L1		L2		L1		L2		L1		L2		L1		L2	
	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR	NR	FR
“byt”/bait	4	1	3	2	1	4	2	3	1	3	2	4	1	4	2	3	2	3	4	1	1	4	2	3
“bak”/buck	4	2	3	1	4	3	1	2	1	3	2	4	3	2	1	4	4	1	3	2	4	3	1	2
“bas”/bus	1	3	4	2	4	3	2	1	4	2	1	3	1	3	2	4	3	1	4	2	1	3	2	4
“bek”/back	1	2	4	3	1	4	2	3	4	3	1	2	1	2	3	4	3	4	2	1	1	3	2	4
“bed”/bet	2	1	4	3	1	4	2	3	1	4	2	3	1	4	3	2	3	2	4	1	1	4	2	3

A value of one indicates that the standard deviation was the greatest, whereas a value of four indicates the standard deviation was the smallest.