Supplementary Material 1

Staircase Diagram of the SPC

Phonologic development										
Speech intelligible with good voice pattern								7	Consonants: liquid	
Some clear sentence with good voice path							6		Consonants: fricatives	
Some clear phrase with good voice pattern				1		5		Consonants: affricatives		
Some clear words with good voice pattern					4	M	ost vowe	vels & some consonants (velar stops)		
Uses vowels to approximate words				3	Most	ost vowels & some consonants (nasal, bilabial/alveolar stops)				
Uses different voice patterns meaningfully 2			Base of suprasegmental pattern & some vowel with voice pattern							
Vocalization as means of communic	cation	1	Vocalized freely and on demand							
									Phonetic development	

The SPC, which includes a modification of Ling's 7 distinct stages, assesses phonetic (articulation) and phonologic (meaningful speech) levels of acquisition at each stage in young children who have undergone cochlear implantation. SPC: speech production scale