

ASSESSING THE TREATMENT EFFECTIVENESS OF CHILDREN WITH SEVERE PHONOLOGICAL DISORDERS

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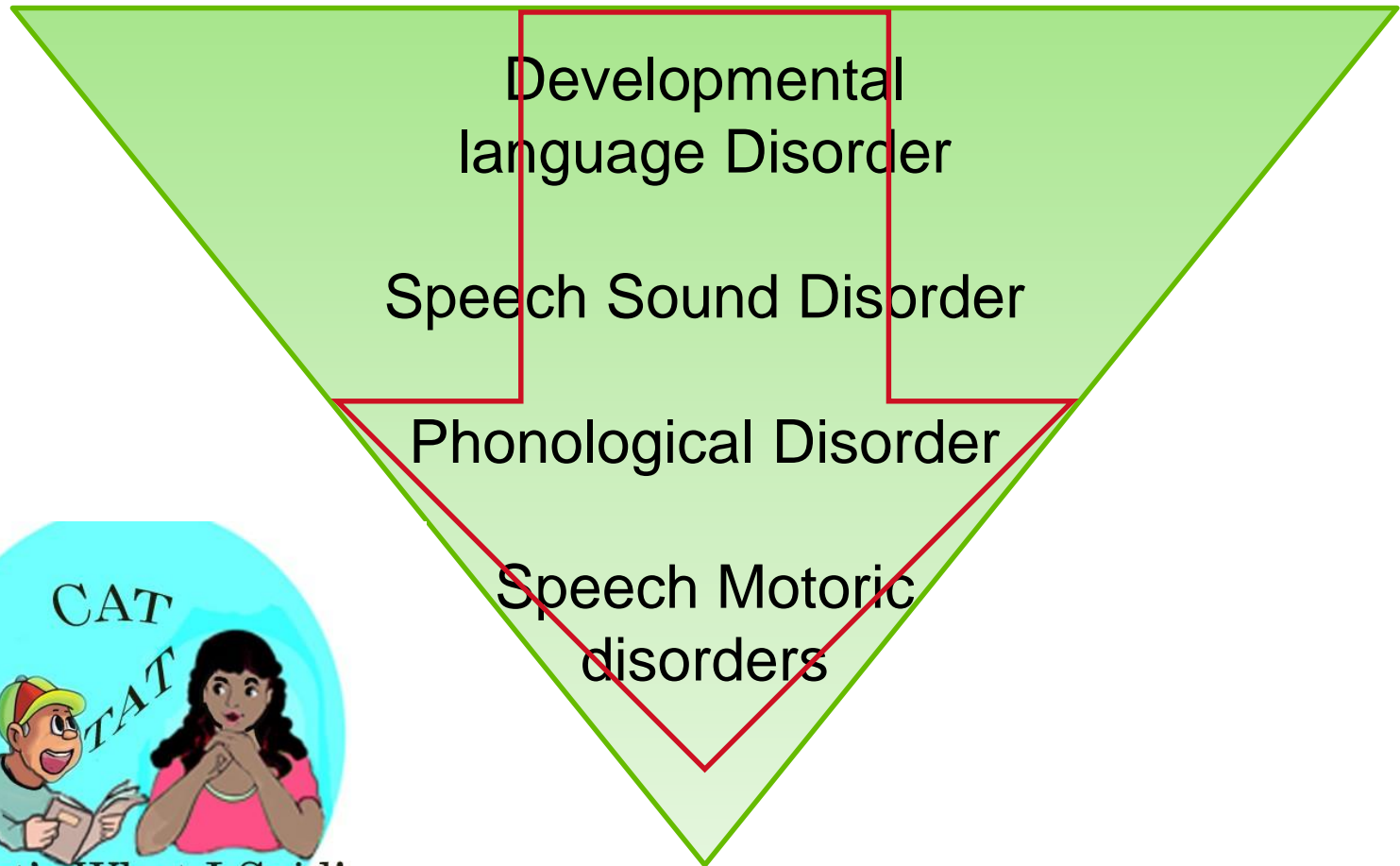
Cascais, CPLOL 2018, 12 May 2018

We are we?/ Where do we work?

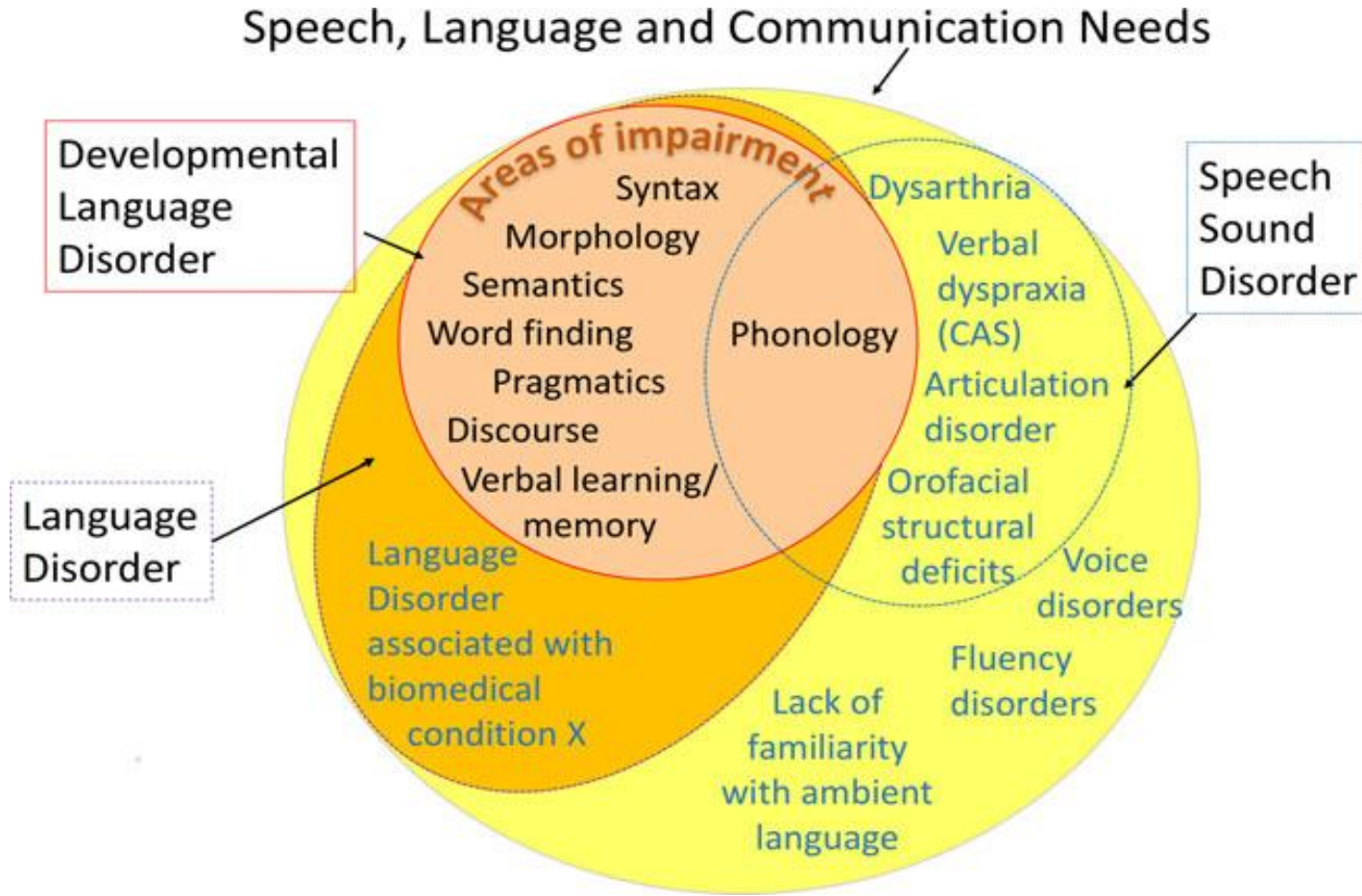
Royal Dutch Kentalis Speech and Language Centre



Terminology clinical groups



Model Bishop et al., 2017



Research questions

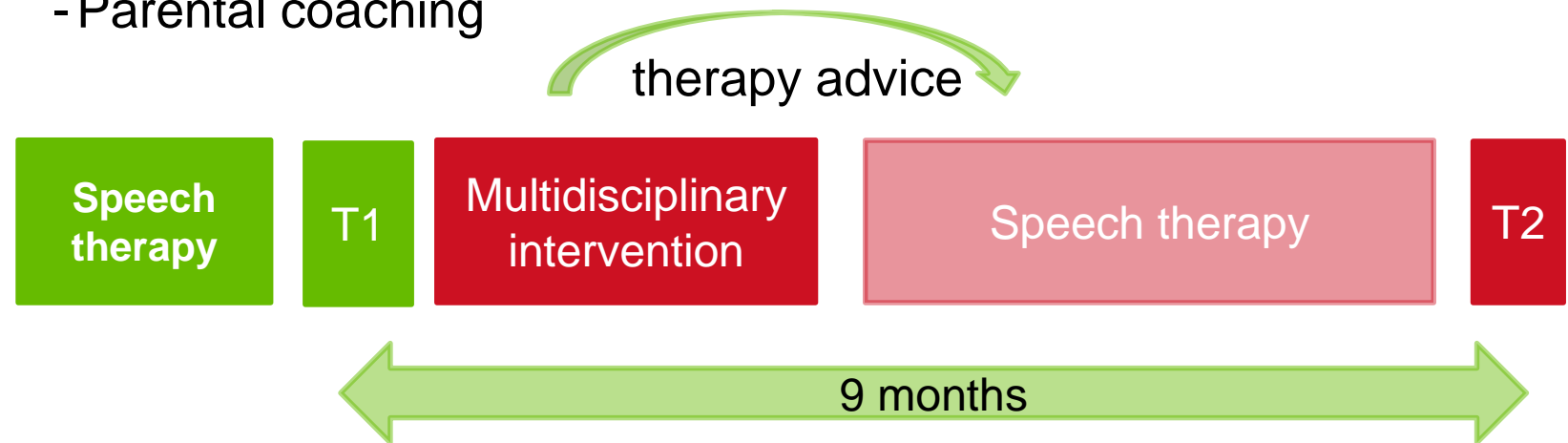
What is the relation between the phonological disorder and cognitive and audiological abilities in children with DLD?

How do phonological disorders improve in children with DLD after remediation?

Timing of the intervention

Short-term, specific phonological intervention, focussed on achieving normal phonological functioning

- 6 days: 9.00-12.00 AM
- 3 children
- Multidisciplinary intervention
 - 2 individual sessions phonological therapy
 - 1 group session, phononemic awareness, communication
 - Parental coaching




Measurement of (language) skills

- **Phonological analysis of the Dutch Language**
(FAN, Dutch acronym for Phonological Analysis of Dutch, Beers, 1995)
- **PCC** (Shriberg & Kwiatkowski, 1982) /PMLU (Ingram, 2002)
- **Non Word Repetition Task** (NWR, Rispens & Baker, 2012)
- **Frog Story Task** (Scheper & Blankenstijn, 2013)
- **CCC-2-NL** (Geurts, 2007)
- **Optional: PROMPT, System Analysis Observation** (Motor Speech Hierarchy, Hayden, 2008)
- **Cognition and audiological skills**

FAN: Grade of Contrasts

Beers, 1995

Acquired initial consonants			Acquired contrasts	Degrees of complexity	
<i>[labial]</i>	<i>[coronal]</i>	<i>[dorsal]</i>			
p-	t-		[labial]	1	
m-	n- j-		[coronal] [sonorant]		
		k-	[dorsal]	2	
	s-	x-	h-	[fricative]	3
b-					
f- w-			[round] [front]	4	
	l- r-		[lateral] [nasal] [rhotic]	5	
	d-				



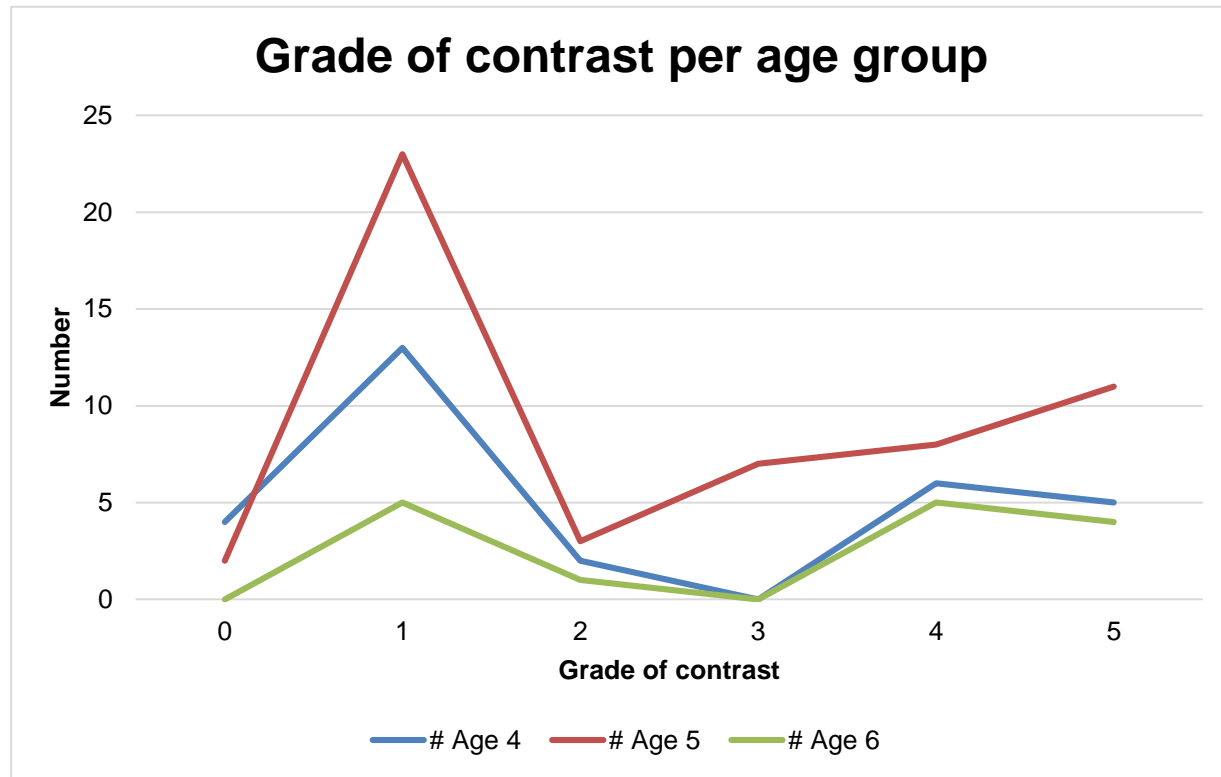
Subjects n=100, 66 boys, 34 girls
n=75, 51 boys, 24 girls

	n	Mean age	Age range	Mean IQ	IQ range
Phonology	100	4;10	3;6-6;8	113	90-148
Subgroup pre-post	75	4;11	3;6-6;8	114,1	93-148



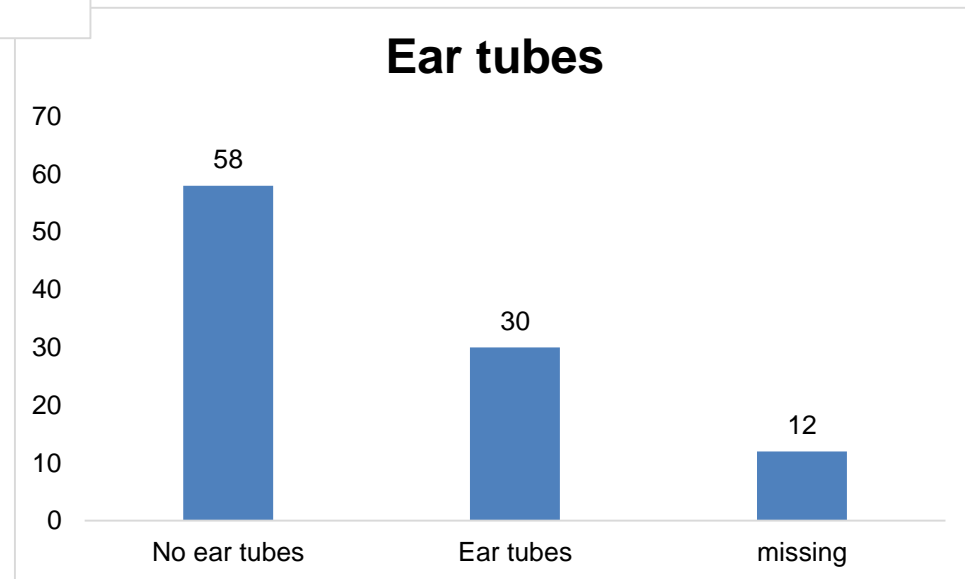
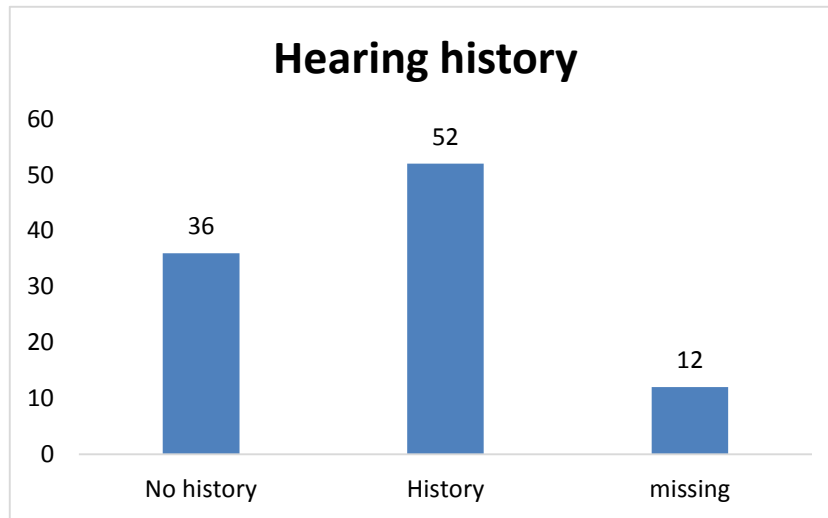
Grade of contrast per age group

(Bron, Scheper, Groen, Cuperus & Verhoeven, 2019) DLD n=100



Audiological abilities children with DLD, phonological disorder

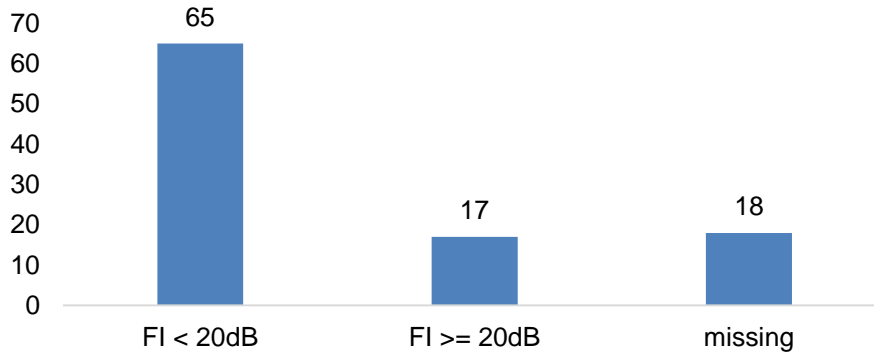
(Bron, Scheper, Groen, Cuperus & Verhoeven, 2019)



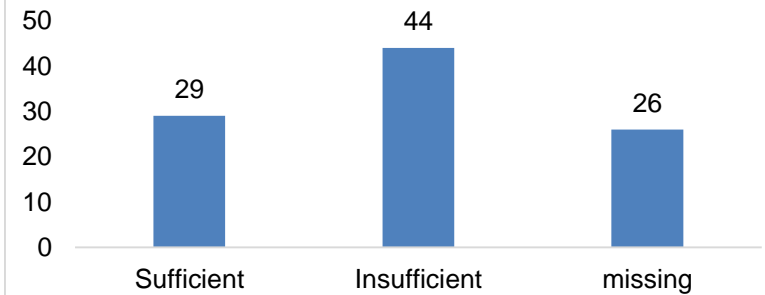
Audiological abilities children with DLD, phonological disorder

(Bron, Scheper, Groen, Cuperus & Verhoeven, 2019)

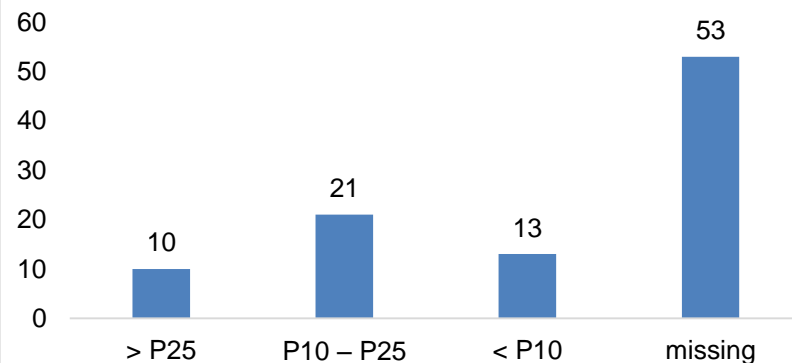
Hearing loss Tone audiogram



Hearing loss Speech audiogram



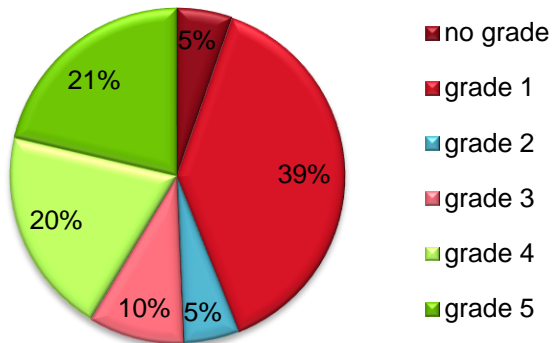
Speech in noise



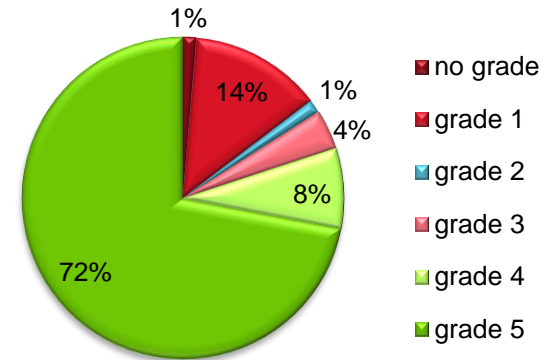
Phonological development: intervention

(Bron, Scheper, Groen, Cuperus & Verhoeven, 2019) DLD n=75

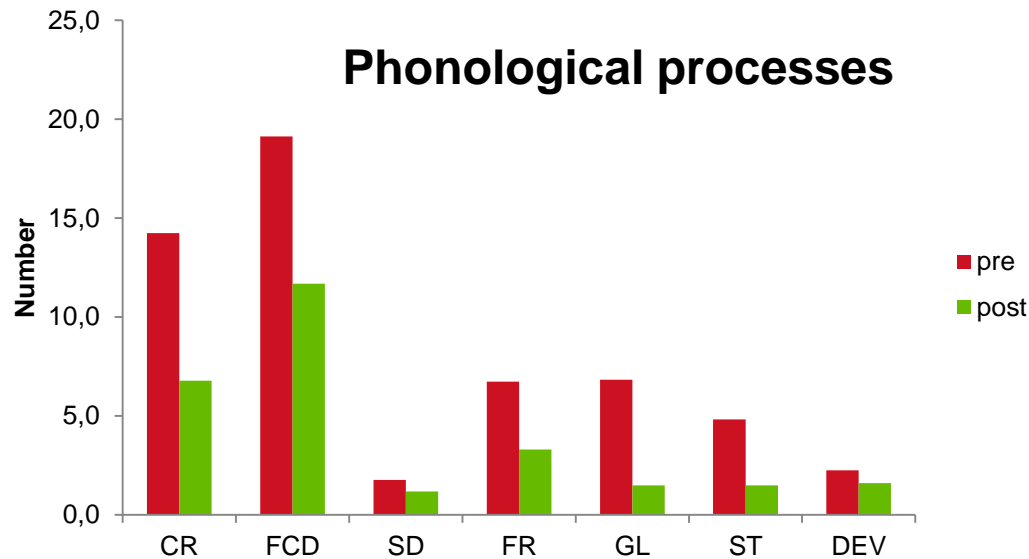
Contrast pre



Contrast post



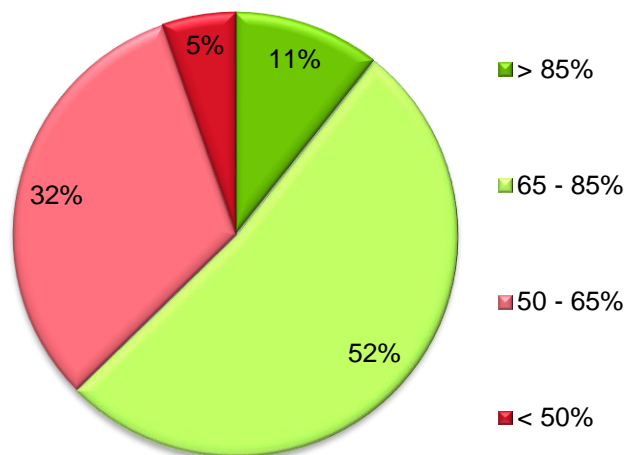
Phonological processes



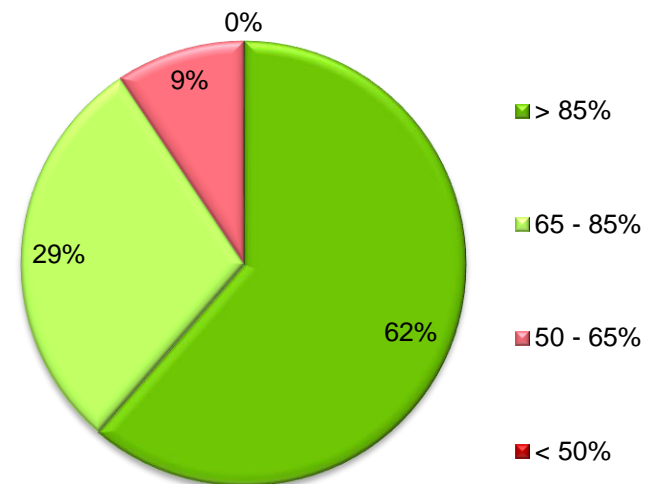
Phonological development: intervention

(Bron, Scheper, Groen, Cuperus & Verhoeven, 2019) DLD n=75

PCC pre



PCC post



Remarks

- Phonological development is difficult at the same point regardless of age.
- Results may be influenced by other factors (e.g. natural growth) because of the use of a pre-post methodology within subject design.
- A control group will be added to this study in the future.

Thanks for your attention!

Children with severe phonological disorders have a developmental language disorder.

They benefit from intensive phonological therapy. Their phonological system normalises.

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