



Classifying Typically- Developing Toddlers Using The Communication Function Classification System

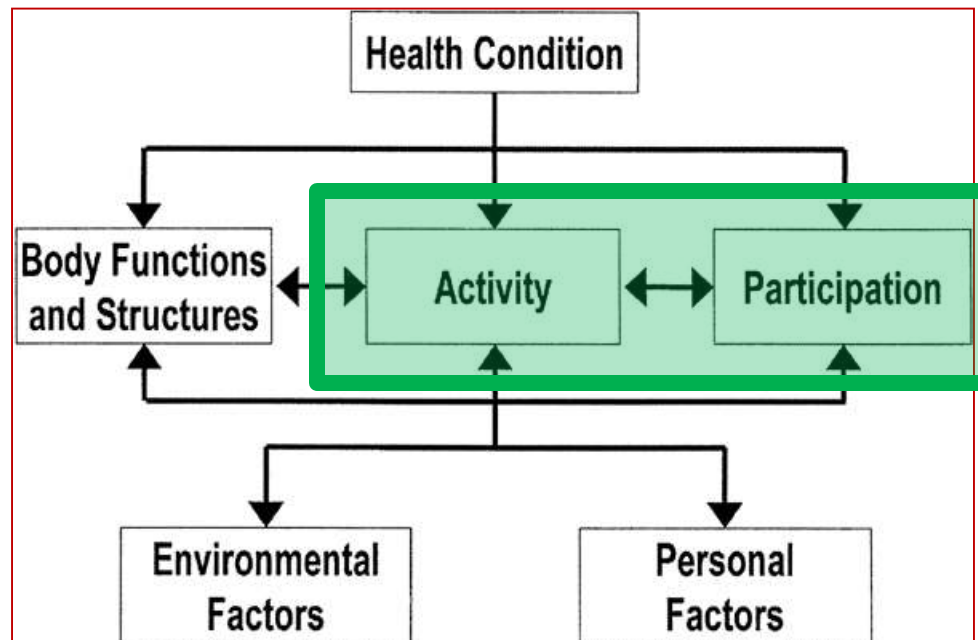
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Background

- ▶ World Health Organization's International Classification of Functioning, Disability, and Health (ICF)



International Classification of Functioning, Disability, and Health (ICF) Model. (WHO, 2001, 2007)

Communication Function Classification System



Most Functional

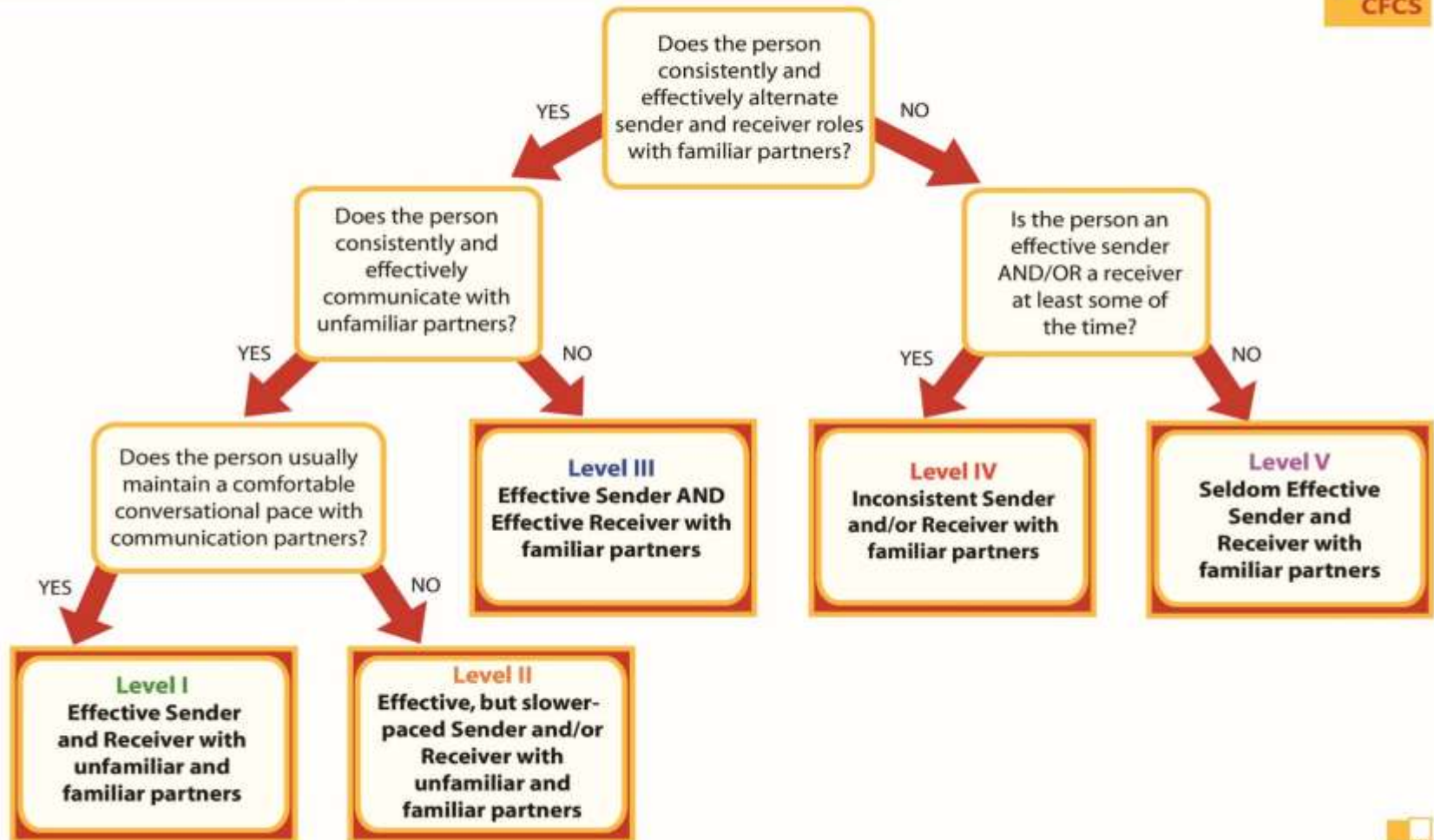
Level I	Effective Sender/Receiver with familiar and unfamiliar partners.
Level II	Effective, but slower with familiar and unfamiliar partners.
Level III	Effective with familiar partners.
Level IV	Inconsistent with familiar partners.
Level V	Seldom effective, even with familiar partners.



Least Functional



CFCS Level Identification Chart



Objectives

- ▶ Determine at what age 80% of typically developing toddlers consistently communicate at the highest CFCS level (Level I).
- ▶ Determine the inter-rater reliability of the CFCS rating by two unfamiliar communication partners.



Methods

- ▶ Sites
 - ▶ 3 local child care centers
- ▶ Participants
 - ▶ 37 children
 - ▶ 12-45 months
 - ▶ Parents/teachers/staff
- ▶ Instrumentation
 - ▶ CFCS



Procedure



- ▶ 30-minute observations
- ▶ Classify child's communication using the CFCS
- ▶ Parent and teacher surveyed

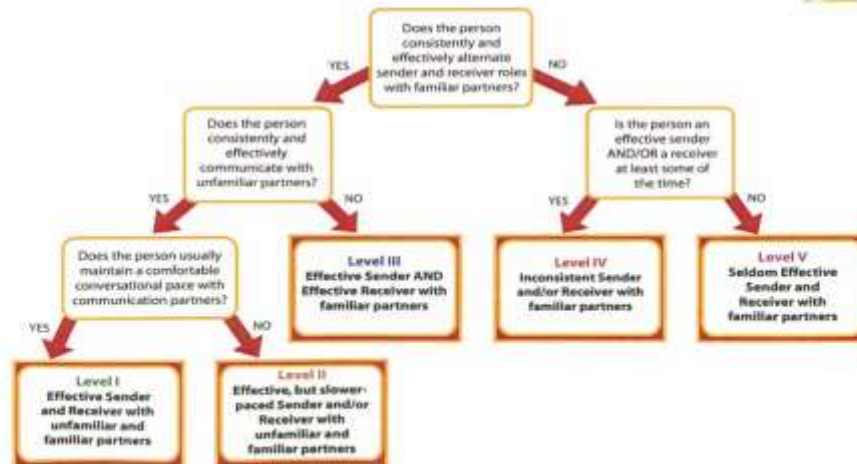
Sample Observer Sheet

Typically Developing CFCS Observation Sheet

Rater Only

Date 7/1/14 Observation Start Time 10:00 Observation End Time 10:30
 Your Name/ ID # HLO1002 Child's ID# J0C08080

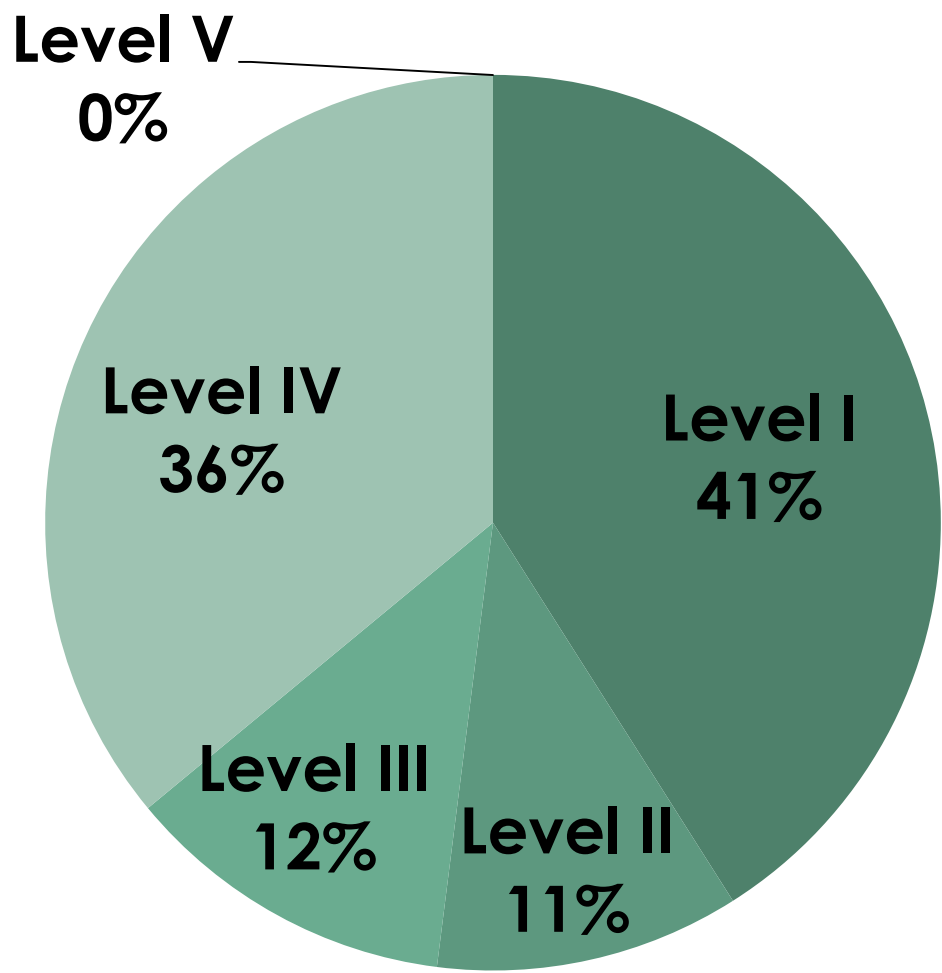
5-Minute Intervals	CFCS Level Rating	Comments/Changes in Communication
5 minutes	3	playing with bubbles outside, with teacher and peers
10 minutes	3	"
15 minutes	3	cleaning up to go ^{go} inside
20 minutes	1	able to easily talk with & be understood by unfamiliar partner
25 minutes	1	" (playing with cars)
30 minutes	1	"
Overall CFCS Rating	1	easy to understand, and understood the unfamiliar communication partner



Results

- ▶ 37 toddlers observed
- ▶ 24 parents completed survey
- ▶ 20 teachers/staff
- ▶ Results looking at CFCS as observed by researchers

Percent of Children at Each CFCS Level



CFCS Level by Age

CFCS	Age 12-23 mo.		Age 24-35 mo.		Age +36 mo.		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Level I	0	0	6	23	24	80	30	41
Level II	0	0	4	15	4	13	8	11
Level III	0	0	7	27	2	7	9	12
Level IV	18	100	9	35	0	0	27	36
Level V	0	0	0	0	0	0	0	0
Total	18	100	26	100	30	100	74	100

Inter-rater Reliability

		Rater 1 CFCS Classification					Total
		I	II	III	IV	V	
Rater 2 CFCS Classification	I	14					14
	II	2	2				4
	III		2	3	1		6
	IV				13		13
	V					0	0
	Total		16	4	3	14	0

Weighted kappa = .92 (95% CI .85-.99)

Discussion

- ▶ As children age, more functional communication
- ▶ 36 months (3 years) 80% CFCS Level I
- ▶ 36 months (3 years) 90 % CFCS Level I or Level II
- ▶ Most variety in CFCS level: 2 years to 2 years 11 months (Level I – Level IV)
- ▶ Inter-rater reliability was excellent between lab raters

Clinical Significance

- ▶ Validation of the CFCS
- ▶ Determine typical communication development
- ▶ Indication of intervention



CFCS Logo

Limitations of Study

- ▶ Socioeconomic status
- ▶ Familiar/unfamiliar partner continuum
- ▶ Small sample size

Future Research

- ▶ CFCS inter-rater reliability with parents and teachers
- ▶ Analyzing FOCUS outcome data
- ▶ Increase sample size of younger ages



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Questions

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