

**Appendix A****Codebook non-linguistic and linguistic features child**

<b>Independent Tier</b>	<b>Controlled vocabulary</b>	<b>Definition</b>
<b>Cat1_eye-gaze-CH</b>	Light source	Eyes of child are directed to light sources
	Teacher	Eyes of child are directed at body teacher
	Teacher eyes	Eyes of child are directed at eyes of teacher
	Teacher face	Eyes of child are directed at (parts of) face except eyes and mouth
	Teacher mouth	Eyes of child are directed at mouth of teacher
	Sign	Eyes of child are directed at or follow sign of teacher and/or child
	Object	Eyes of child are directed at object
<b>Cat1_body-contact-CH</b>	LH RH CH – STOP SIGNING– RH LH TE	Left hand and right hand child press down right hand left hand teacher  saying ‘STOP SIGNING’
	RH CH – LH TE push towards object	Right hand child pushes left hand teacher towards object
	(red) Object touch lips	Child puts (red) object towards lips
<b>Cat1_head-mov-CH</b>	Sign	Head child moves in the direction of sign

	No	Head child moves left to right saying 'no'
<b>Cat1_facial-expres-CH</b>	Smile	The child smiles
	Raised eyebrows	The child raises his eyebrows
	Frowned eyebrows	The child frowns his eyebrows
	Squeeze eyes	The child squeezes his eyes
	Yawn	The child yawns
<b>Cat1_gestures-CH</b>	Point touch	The child points to something by touching it with his index finger
	No	X2 palm up, moving hand left to right shortly (no)
	Grab	Pushing hand of teacher towards object, asking if the teacher can grab it
<b>Cat1_BET-CH</b>	Walk	Child moves legs up and down
	Nail polish	Child rubs middle finger over nail index finger
<b>Cat1_vocalisation-CH</b>	No features observed	No features were observed in this category
<b>Cat2-9_sign-CH (independent tier)</b>	SIGN ?	Meaning of sign not fitting in context or sign not directed at teacher
	SIGN ??	Doubt if it is an intentional sign, or a meaningless movement

HELLO TEACHER ?	Child signs hello to teacher (sign can be phonologically incorrect)
HELLO CAMERAMAN ??	Child waves at cameraman (sign can be phonologically incorrect)
WALK ?	Child signs 'walk' (sign can be phonologically incorrect). Not directed or
	Sign not directed at teacher or meaning of sign not fitting in context
WALK	Child signs 'walk' (sign can be phonologically incorrect)
I THINK	Child signs 'i think' (sign can be phonologically incorrect)
MONDAY ??	Child has two fingers in his mouth
CANNOT	Child signs 'cannot' (sign can be phonologically incorrect)
CANNOT ?	Child signs 'cannot' (sign is phonologically incorrect, or could also be 'done')
ANGRY	Child signs 'angry'
GRAB OBJECT	Child signs 'grab object'
EAT ??	Child signs 'eat' by putting finger of teacher in his mouth?
I	Child signs 'i'

BAG	Child signs 'bag'
PLAN	Child signs 'plan'
BOOK	Child signs 'book'

### Dependent tiers

(of the above independent tier  
Cat2-9)

<b>Cat 2_touch-body-CH</b>	RH CH – back head CH	Right hand child touches back of head child
	Hand- mouth	Hand child touches mouth child
	Hand-left side head	Hand child touches left side head child
	LH RH CH make sign LH RH TE	Left hand right hand child make sign with left hand right hand teacher
	LH RH TE make sign LH RH CH	Left hand right hand teacher make sign with left hand right hand child
<b>Cat2_touch-muscle tension-CH</b>	No features observed	No features were observed in this category
<b>Cat2_touch-pressure-CH</b>	No features observed	No features were observed in this category
<b>Cat2_touch-duration-CH</b>	0-1	Touch less than a second
	1-3	Touch 1-3 seconds
	>3	Touch 3 seconds and more

<b>Cat2_touch-blowing-CH</b>	No features observed	No features were observed in this category
<b>Cat3_wholebody-posture-CH</b>	No features observed	No features were observed in this category
<b>Cat3_wholebody-movement-CH</b>	No features observed	No features were observed in this category
<b>Cat4_handshape-CH</b>	4-R	4-hand right hand
	5-R	5-hand right hand
	5-L	5-hand left hand
	5claw-R	Claw-5-hand right hand
	5claw-L	Claw-5-hand left hand
	5-RM-hand-L	5-hand with RM finger put down - left hand
	C-L	C-hand left hand
	Cclosed-L	Closed c-hand left hand
	Baby-C-spread-R	Baby-C-spread hand right hand
	L-L	L-hand left hand
	L-R	L-hand right hand
	1L	1-hand left hand
	1RL	1-hand left and right hand

	AS-L	AS-hand left hand
	AS-R	AS-hand right hand
	X2-L	X2-hand left hand
	X2-LR	X2-hand left and right hand
	V-claw R	V-claw hand right hand
<b>Cat5_orientation-hand-CH</b>	Palm forward	Palm is oriented forward, towards communication partner
	Back up	Back of hand is oriented upward
	Palm up	Palm of hand is oriented upward
	Palm sideways	Palm of hand is oriented sideways
	Back half up	Back of hand is oriented halfway up
	Towards object	Fingers are oriented towards object
<b>Cat5_orientation-fingers-CH</b>	Child	Fingers are oriented towards child
	Downward	Fingers are oriented downward
	Upward	Fingers are oriented upwards
<b>Cat5_orientation-toes-CH</b>	No features observed	No features were observed in this category
<b>Cat5_orientation-other-CH</b>	Upper body towards cameraman	Upper body oriented towards cameraman
<b>Cat6_location-head-CH</b>	Back of head	Sign is located at the back of the head

	Left side head	Sign is located of the left side of the head
	Mouth	Sign is located in or on mouth
<b>Cat6_location-uppertrunk-CH</b>	No features observed	No features were observed in this category
<b>Cat6_location-arm-CH</b>	No features observed	No features were observed in this category
<b>Cat6_location-lowertrunk-CH</b>	No features observed	No features were observed in this category
<b>Cat6_location-leg-CH</b>	No features observed	No features were observed in this category
<b>Cat6_location-hand-CH</b>	LH TE	Sign is located on left hand teacher
<b>Cat6_location-freespace-CH</b>	Top of table	Sign is located on top of table
	Right front next body	Sign is located in front and right side next to body child
	Left front next body	Sign is located in front and left side next to body child
<b>Cat7_movement-arm-CH</b>	Up and down	Arm moves up and down
	Right	Arm moves to the right
	Crossing LH RH → outside	Arms are crossing left and right hand, then bringing them back outside again
	Middle → outside	Hands at middle, en then arm movement outwards
	Towards object	Arm movement towards object

	Towards child	Arm movement towards child
<b>Cat7_movement-head-CH</b>	Sign	Shake head during sign
<b>Cat7_movement-leg-CH</b>	No features observed	No features were observed in this category
<b>Cat7_movement-acceleration-CH</b>	No features observed	No features were observed in this category
<b>Cat7_movement-speed-CH</b>	No features observed	No features were observed in this category
<b>Cat7_movement-repeating-CH</b>	Twice	The body part moves twice
	Three times	The body part moves three times
<b>Cat7_movement-hand-CH</b>	Downward on tabletop	Palm of hand moves downward on table top.
	Towards back of head	Hand moves towards back of head
	Palm to back hand	Hand moves from palm to back of hand
	Front → back	Hand moves from moves to the front and then to the back
	Up down	Hand moves up and down
<b>Cat7_movement-fingers-CH</b>	TI move	Thumb and index finger move
	X2- front back	X2 handshape, ring finger front to back
	Closed → open	Fingers are closed and then child opens fingers
	RM close	The child closes his ring finger and middle finger



	MRP close-open	Middle finger, ring finger, pink close and open
	IRMP up and down	Index finger, ring finger, middle finger and pink move up and down
	IMR up and down	Index finger, middle finger and ring finger move up and down
	P up	Pink moves up
	TIM up and down	Thumb, index finger, middle finger move up and down
<b>Cat8_nonmanual-mouthing-CH</b>	No features observed	No features were observed in this category
<b>Cat8_nonmanual-mouthgestures-CH</b>	No features observed	No features were observed in this category
<b>Cat8_nonmanual-vowel-CH</b>	No features observed	No features were observed in this category
<b>Cat8_nonmanual-consonant+vowel-CH</b>	No features observed	No features were observed in this category
<b>Cat8_nonmanual-posturehead-CH</b>	No features observed	No features were observed in this category
<b>Cat8_nonmanual-facialexpres-CH</b>	Frowned brows	The eyebrows are frowned
	Grimace	The face has a grimace
	Raised brows	The eyebrows are raised

<b>Cat9_morphology-classifiers-CH</b>	No features observed	No features were observed in this category
<b>Cat9_morphology-manner-CH</b>	Hard	The child touches the back of his head hard
<b>Cat9_morphology-aspect-CH</b>	No features observed	No features were observed in this category
<b>Cat9_morphology-plural-CH</b>	No features observed	No features were observed in this category
<b>Cat9_morphology-congruence-CH</b>	Congruence of person	Congruence of person
<b>Cat9_morphology-possessivepronoun-CH</b>	No features observed	No features were observed in this category
<b>Cat10_wordclass-CH</b>	V	Verb
	N	Noun
	Adverb	Adverb
	Adjective	Adjective
	Determiner	Determiner
	Loc.V	Locative verb
	Non-congr.V	Non-congruent verb
	Trans.verb	Transactional verb
	Pronoun	Pronoun

<b>Cat11_syntax-CH</b>	N-V	Noun verb
	N+loc.V	Noun locative verb
	N+non-congr.V.	Noun non-congruent verb
	N+trans V	Noun transactional verb
	V+adverb	Verb+adverb
	Loc. V+adverb	Locative verb+adverb
	Noncongr.V+adverb	Non-congruent verb+adverb
	Trans.V.+adverb	Transactional verb+adverb
	Pronoun+V	Pronoun+verb
	Pronoun+loc.V	Pronoun+locative verb
	Pronoun+noncongr.V	Pronoun+noncongruent verb
	Pronoun+trans.V.	Pronoun+transactional verb
	Conjunction	Conjunction
	V-N	Verb noun