On the acquisition of classifiers in 5-6 year old Deaf children

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1. Background

❖ A classifier is a handshape (sometimes combined with a specific orientation) that, when combined with the other parameters of movement and location, forms a 'verb of motion or location'. The classifier hand in this type of verb is a bound morpheme that reflects a form or meaning characteristic of the nominal referent. (Zwitserlood, 2012).

❖ Studies on the acquisition of classifiers by deaf children are limited and focus primarily on Deaf children of Deaf adults (DOD).
❖ This research shows that classifiers emerge at 3 years of age and approach an adult like level at the age of 9 (Beal-Alvarez & Easterbrooks, 2013; Baker, Van den Bogaerde & Woll, 2005):
❖ More than 90% of deaf children are born to non-signing hearing parents (DOH) (Mayberry 2007).
❖ Previous research has shown that (delayed) age of acquisition of a sign language has an effect on (native-like) mastery of several linguistic components (Mayberry & Eichen, 1991; Boudreault & Mayberry, 2006).
❖ Therefore it would be interesting to investigate how DOH children acquire classifiers.

RQ: To what extent do 5-6 year old DOH children, who learn Sign Language of the Netherlands, produce classifiers in narratives?

2. Participant Overview

❖ All children were recruited via a school for the Deaf in the Netherlands.
❖ All children attended grade 2.

P1.
Gender: Girl
Age at testing; 6;8 years
Age at Diagnosis: 22 months (L 70-80dB – R65-70dB)
Language at Home: Sign Supported Dutch
NGT experience: 2;8 years
Language at school: NGT

P2.
Gender: Girl
Age at testing: 5;10 years
Age at Diagnosis: from birth (syndrome) (L110dB – R 70 dB)
Language at Home: Dutch/ Sign Supported Dutch
NGT experience: 3;10 years
Language at school: Sign Supported Dutch/ NGT

P3.
Gender: Boy
Age at testing: 6;4 years
Age at Diagnosis: 28 months (L/R 100 dB)
Language at Home: Dutch/Sign Supported Dutch
NGT experience: 3;10 years
Language at school: Sign Supported Dutch/ NGT

P4.
Gender: Boy
Age at testing: 6;1 years
Age at Diagnosis: 28 months (L 40-70dB – R 40-60dB)
Language at Home: Dutch
NGT experience: 3;1 years
Language at school: Dutch/ Sign supported Dutch

3. Procedure

❖ Elicitation of speech by means of the Frog story ('Frog, where are you?'(Mayer, 2003)
❖ Videotaped conversations. Video recorder used was Canon IXUS 1100 HS. Five minute start up.
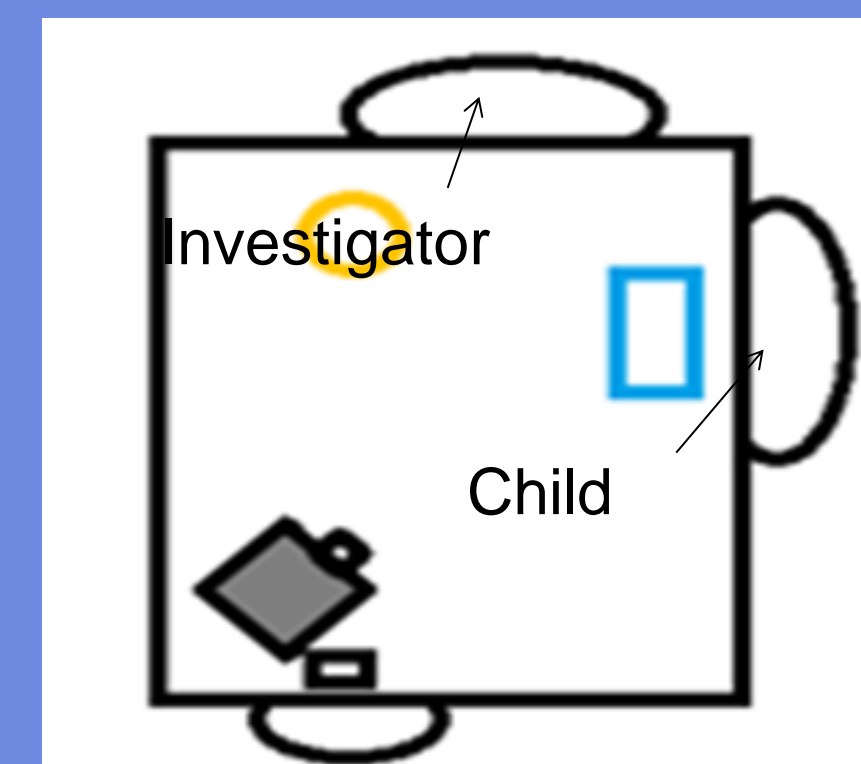❖ Setup was as depicted in Figure 1

Figure 1

Figure 2

❖ Transcription using ELAN (see Figure 2).
❖ Only utterances with classifiers were transcribed. [tier 1]
❖ Type of classifier was given [tier 2]
❖ Accuracy in classifier production was given in [tier 3]

❖ **Classifier Analysis**
EC = Entity Classifier = is used with movement and location components in a classifier construction to show the movement or location of an entity.
HC = Handling Classifier = reflects certain formal characteristics of the handled object in a signed sentence with a transitive verb.
(Nijen Twilhaar & Van den Bogaerde, forthcoming)

❖ **Accuracy analysis**
Correct classifier production : handshape has marked similarities with the entity.

BROER SPRINGEN-OVER-BOOMSTAM-CL:VKLAUW
'De broer springt over de boomstam'
'Brother jumps over tree'
Handshape resembles the legs of the boy.

Incorrect classifier production: handshape is not transparant with respect to properties of the entity.

HERT AFREMMEN-CL:B_0
'Het hert remt af'
'The deer slows down'
Handshape does not resemble the legs of the deer.

In case of doubt, a native signer was consulted.

4. Results

Child	No. EC	No. HC	Total CL	Recording time
P1	3	0	3	12m16s
P2	5	0	5	12m30s
P3	8	1	9	16m32s
P4	4	1	5	8m38s
Total	20	2	22	49m56s
Percentage	91%	9%	100%	-

Classifier Analysis

Child	EC correct	EC incorrect	HC correct	HC incorrect
P1	3	0	0	0
P2	5	0	0	0
P3	7	1	1	0
P4	3	1	1	0
Total	18	2	2	0
Percentage	90%	10%	100,0%	0,0%

Accuracy Analysis

5. Conclusion

❖ DOH children produce classifiers after three years of exposure to sign language.
❖ Errors in classifier production involve errors in handshape selection.

▪ An open question is to what extent the classifiers are incorporated in an (conventionalized) adult system. The first production of classifiers might emerge from gestural representation (Slobin et al., 2003), which shows more variable production as compared to a conventionalized system (Cormier et al. 2012).

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