

Coding of video-interaction based on the ICDP guidelines.

(Karsten Hundeide, November 2007)

There are some questions that need to be clarified before the coding starts:

1. *Which interactive situations are going to be filmed?* This is an important question because the situation itself may afford certain types of interaction, not others. For example having a child on the lap looking into a picture-book affords mediation and labeling, while playing with the child on the floor trying to build a tower affords regulation and scaffolding. The impact of the situation is an important factor for the outcome, usually ignored in this type of research.

Usually we have used two types of situations that is:

- a) free playing with a fixed set of toys; requesting the parent to play with the child
 - b) a set and typical situation from the child's everyday routine, like a meal. Depending upon the child's age – with babies; bathing is sometimes used.
2. *How long time is the child filmed and how long bits of interaction are analyzed?* Usually from 5 to 10 minutes are filmed, but only 3-5 minutes are analyzed. One way is to select a sequence of interaction after 3 minutes, so that the awareness of being filmed is reduced and the interaction has got started.
 3. *Who is analyzing the film and training?* There has to be a stage of training with the particular coding system used. Before coding starts inter-rater reliability index should be investigated and that should be fairly high before coding starts (.80?). One or two coders should be used, if not two are used for the whole sample, regular checks on agreement should be done during the analysis
 4. *The coding systems* There are many coding systems for caregiver-child interaction, and like other assessment tools, the selection of coding system should not only be decided based on internal psychometric qualities, but also on *relevance for the project and for the qualities that are supposed to change* according to the objective of the intervention.
 5. *A coding system based on the ICDP guidelines of good interaction* are suggested as a draft below (similar to the one used in the Bergen-project in 1992-3). The main points are the following:
 - a) It is important to make a distinction between assessing a *qualitative state* like degree of emotional warmth and analyzing *an episodic sequence*, like the child pointing on a picture in a book asking the caregiver “what is that?” The qualitative state can be running through the whole sequence of episodes as an underlying current of emotionality, while the interactive

episodes will vary and develop according to the emerging goals of interaction.

- b) Some states that can be included into the ICDP coding using a Likert scale from 1 to 5. These are assessed as general qualities of the interaction after the sequence is finished:

1. *The level of emotional warmth of the caregiver*
2. *The sensitivity of the caregiver to the child's initiatives*
3. *The level of activity and communicative initiations of the child*
4. *The level of joint focus or "inter-subjectivity" between caregiver and child*
5. *The balance of dominance in the interaction between caregiver and child*

- c) *Using the 8 guidelines of good interactions as a basis for developing an episodic coding system – some problems:*

The problem here is that they have not been developed for the sake of coding, but for pedagogical and communicative purposes, therefore they are partly overlapping. For this reason it is important to be very precise in defining each guideline to be used and to avoid double coding and overlapping for example how does "expressing love and positive feelings for the child" differ from "giving acknowledgement, confirmation and praise to the child"? This needs to be concretely defined and differentiated.

Another problem linked to the second meaning and expansion dialogue: Focusing and joint attention is one category, but the other two meaning and expansion presuppose joint attention. Therefore joint attention/focusing is only used when it appears alone like pointing and gazing at the same object. It is not coded when it appears together with mediation of meaning or expansion. Also meaning and expansion is not coded there is not joint attention for example the mother explaining or telling a story while the child looks away being preoccupied with something else. This is the reason why level of inter-subjectivity is used as general a qualitative measure (see point 4 above).

Thirdly, when it comes to regulation of behavior, this has many aspects (see manual). Beyond positive regulation, scaffolding etc. it is also interesting, for various reasons. to include negative regulation, shouting, punishing, beating, violence, insensitive humiliating correction etc. This should be coded episodically as a separate category from positive regulation.

6. *Measuring or the quality of interaction based on the ICDP guidelines.*

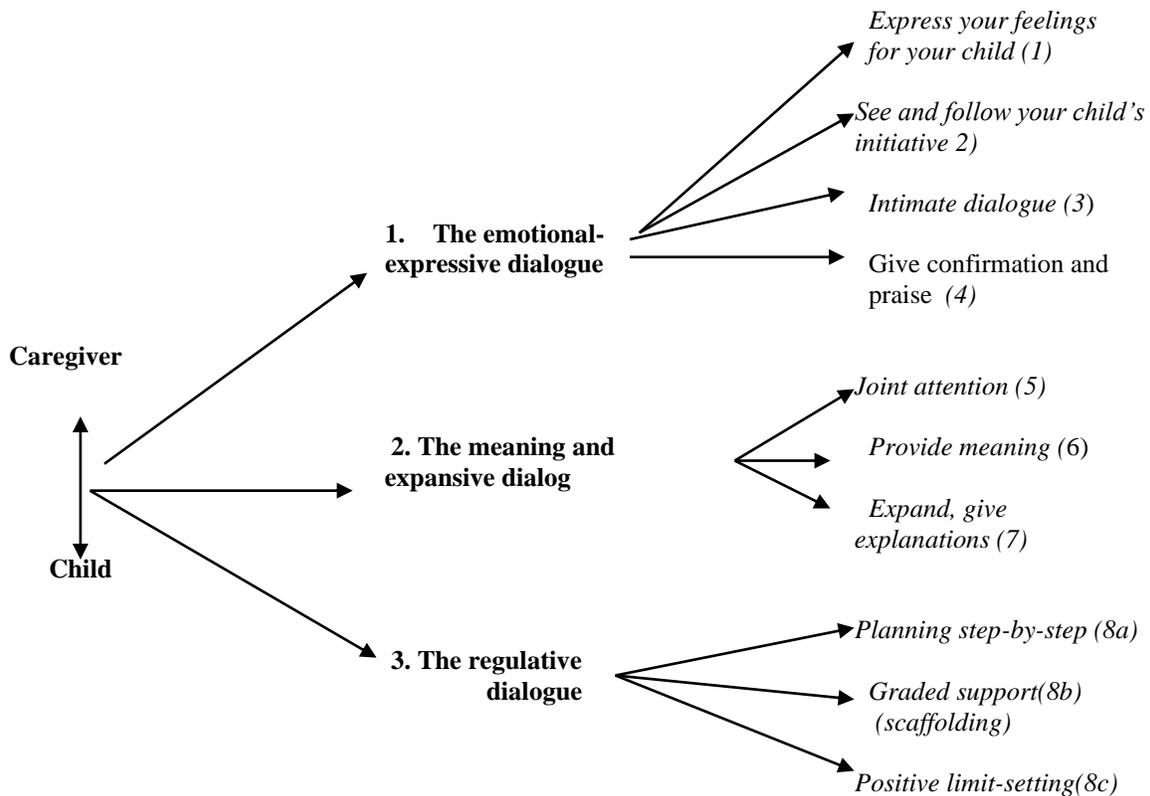
This is not easy as I see it. There are three possibilities:

- a) either one has to analyze rigidly small time sequence and count frequencies of each guideline,

- b) or one can use a Likert scale to assess the level of presence of each guideline in larger sequences of interaction. This is very imprecise although the inter-rater reliability can be high and it can be done more quickly than other methods.
- c) A more precise and simple way would be to decide on certain time sequences like every 10-15 seconds and then *investigate presence or absence of each guideline in that short interval*. We may then lose some of the extreme frequencies, but the impact will usually appear if it is significant and the method is more simple and precise to code.

7. *The three dialogues and the eight guidelines of good interaction:*

The three dialogues and the eight guidelines of good interaction



This figure summarizes the relationship between the three dialogues and “the eight guidelines of good interaction”

Bipolar dimensional presentation of the guidelines

Positive pole	Little	Medium	Much	Negative pole
1. Showing positive feelings of love				Showing negative feelings, rejecting the child

2. Following or responding to the initiative of the child				Imposing your own intentions and wishes on the child's activity
3. Establishing a positive personal dialogue – verbally/ non-verbally				Not communicating with the child - ignoring him/her
4. Praising and giving confirmations to the child				Discouraging and disconfirming the child
5. Helping the child to focus and share experiences				Distracting and the child with too many impressions
6. Conveying meaning and enthusiasm to the child's experience				Being silent and indifferent to the child's experience of the world
7. Expanding and enriching the child's experience by explanations, comparisons and stories				Being silent or only stating what is needed at the moment. Not going beyond for the sake of the child's enrichment
8. Regulating and guiding Setting limits for what is allowed in a positive way Giving alternatives for				Ignoring the child the child's actions and projects. Laissez faire attitude. Letting the child act as he wishes

action				without any interference, support or limit. ¹ Stating what he cannot do
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This table can also be used for assessment

¹ Another negative version of the same guideline is commanding the child in an insensitive aggressive way, ignoring his needs and wishes.

Observational tools for analysing the three dialogues and the eight guidelines of good interaction. (K. Hundeide 2002).

Below there is a table specifying the three dialogues and the eight guidelines. The numbers in parenthesis refer to the guidelines and the letter to the specification of each. By marking off the frequencies of each specification (a, b, c) they can be scored individually and then the sum score can be added and placed outside each guideline (). In this way it is possible to see both the *specific repetitive pattern of each caregiver-child dyad*, and at the same time see *the interactional profile by using the sums of the guidelines (see page 5)*.

1. The emotional–expressive dialogue (Specify how in the squares)

Interactional topics	Frequency	Never	Seldom	Reasonable	Often	Conclusion
<i>Expressing/showing positive feelings (1):</i>						
a. Smiles and sharing of joy						
b. Positive teasing and laughter						
c. Talks positively to the child: face-to-face						
d. Direct expressions of love and care, kissing, touching, caressing, embracing						
<i>Interpreting and adjusting to the child's initiatives, needs/states (2)</i>						
a. Reads sensitively the child's signals and states						
b. Responds by adjusting and following the child's action- initiatives						
c. Responds by adjusting to the child's deeper feeling states, consoling, encouraging						
<i>Intimate dialogue</i>						

<i>with turn taking and emotional sharing (3)</i>						
a. Turn-taking with intimate expressive exchange						
b. Disclosure of feelings						
c. Revealing “secrets”						
<i>Confirmation and acknowledgement (4)</i>						
a. Verbal, explicit acknowledgement and praise (for action)						
b. Non-verbal smiles, nods and confirming eye-contact						

2. The didactic and expansive dialogue (mediational).

Interactional topics	Frequency	Never	Seldom	Reasonable	Often
<i>Joint attention (5)</i>					
a. Focussing the child’s attention by calling					
b. Joining, by following the direction of the child’s attention					
<i>Joint attention with meaning (6)</i>					
a. Observing together; caregiver describes what they see					
b. Same as a,					

but with enthusiasm and feeling					
c. Child watches and caregiver demonstrates how things function					
d. Child requests meaning: "What is that..?"					
e. Caregiver requests meaning by asking child					
<i>Expansion beyond the situation (7)</i>					
a. Give explanation to what they experience together					
b. Comparing their joint experience with other experiences					
c. Analyse their shared topic – why so and so?					
d. Request for expansion: Why is it...?					
e. Telling stories about the topic – past, present future					
f. Symbolising the topic in					

writing and retelling					
g. Symbolising through non-verbal means; dramatisation, drawing					

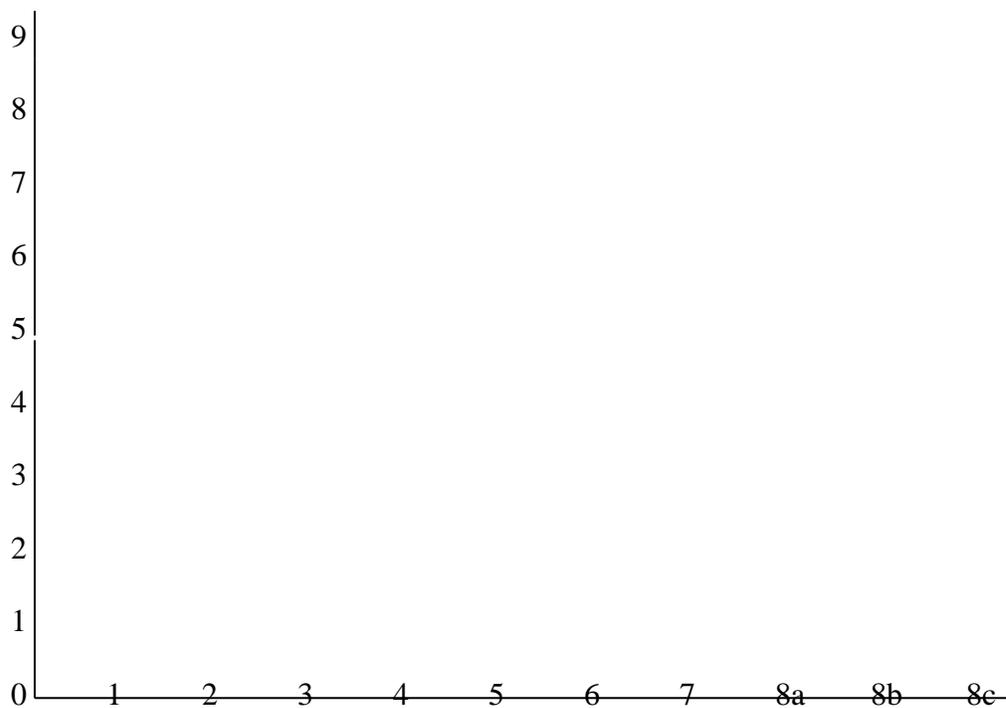
The regulative and limit-setting dialogue

Interactional topics	Frequency	Never	Seldom	Reasonable	Often
<i>Regulation in goal-directed activities (projects) (8 a)</i>					
a. Tell the child what to do					
b. Pointing, nodding and directing the child's attention to what to do					
c. Demonstrating how things should be done					
d. Demonstrating with explanations					
e. Demonstrating or describing step-by-step					
f. Help the child to plan - distancing					
g. Guiding the child through questions					
<i>Gradual support to the child's initiative (8 b.)</i>					
a. Preparing the setting					
b. Sustaining the					

goal/activity					
c. Encouraging the child					
d. Challenging the child					
<i>Limit-setting in a positive sense (8 c.)</i>					
a. Redirect the child's attention to positive alternatives					
b. Stop negative actions with explanation					
c. Stop the child by pointing out consequences					
d. Stop the child by pointing out the suffering of the victim					
e. Stop the child with reference to agreed rule and agreed punishment					

Interaction profile of dyad:

Frequency



Guidelines referred as numbers



**ICDP procedures
for coding videos of caregiver-child interactions**

1) Three play situations are coded: "Play Situation 1" (Book), "Play Situation 2" (Building blocks) and "Play Situation 3" (Puzzle). Approximately each situation lasts for about 10 minutes. In each situation, coding will start after 3 minutes (in situation 2 and 3, coding starts 3 minutes after the researcher has entered the room to give a new task/toy). The following 2 minutes are then coded. If unexpected things happen, such as the participant leaving the room, the time is changed/shifted accordingly.

2) The coding is based on the ICDP's eight guidelines (the term guideline is used here but the word theme is used in the Norwegian evaluation) for good interaction between caregiver and child. In addition, each situation is coded for the overall emotional atmosphere, the overall degree of joint attention and whether the overall control is with the caregiver or the child. (See the Scoring sheet in appendix 1).

3) Scoring of ICDP's eight guidelines:

Score «0» means that this topic is not relevant or that it is not present in the situation.

Score «1» means that the guideline is present. To determine this, we suggest using the Guidelines with Sub-criteria (see appendix 2) as a guideline. At least one of the sub-criteria should be present.

Score «2» means that the theme appears very clearly. In this case several of the sub-criteria in the check list have to be present.

Score «-1» means that the negative pole of the guideline is present. The negative pole for each guideline is explained in the Scoring sheet (see appendix 1).

Score «-2» means that the guideline's negative pole appears very clearly.

Scoring for the three overall states:

To score for the overall states use the feeling/impression you receive immediately after having watched the situation.

Emotional atmosphere:

Score «0» means that there is no emotional interaction between the caregiver and the child.

Score «1» means that a positive atmosphere between the caregiver and the child is present.

Score «2» means that the positive atmosphere appears very clearly.

The same guidelines applies to the negative pole.

Joint attention:

Score "0" means that there is no joint attention.

Score "1" means that there is to some extent, fragmented attention.

Score "2" means that there is joint attention.

Control:

Score "1" means that the caregiver to some degree controls the situation

Score "2" means that the caregiver controls the situation.

Balance means turn-taking; both the caregiver and the child (equally) contribute to the interaction.

Power struggle: both caregiver and the child want to control/dominate/decide.

Score "-1" means that the child to some degree controls the situation

Score "-2" means that the child controls the situation.

4) In the positive vs. negative coding of each guideline it must be taken into consideration what kind of interactive behaviour the particular situation invites. (Is it necessarily a neutral/negative thing if the caregiver does not kiss and hug the child in a building block situation?) You must use your own discretion and think what would be natural behavior in that particular situation.

5) After all the situations are coded, an overall profile for the caregiver and child is made. This is done in two ways:

All the scores for one guideline in the three situations are summed together, so that each guideline has one separate score. Example:

Theme 1:

Situation 1: **2** Situation 2: **1** Situation 3: **-2**

Final score/profile: $2 + 1 + (-2) = 1$ SEP

A separate interactive profile using the 8 guidelines can be made for each situation, which would give 3 interactive profiles for the same person.

RECOMENDATIONS

based on experiences so far in coding videos

FROM NICOLETTA AND IN AGREEMENT WITH WHAT ALSO HILDA AND MARIT FOUND:

1. To watch all the videos first of all
2. To find the best and the worst example is useful as it will give more clarity about how to score
3. Not use puzzle outside Europe but blocks or similar culturally appropriate
4. Book: there are cases where first the caregiver reads the whole story and only afterwards she starts to discuss the content and ask questions, and look again at the story and pictures involving the child- so 2 minutes is not enough
5. To watch and code 10 minutes, not only 2 minutes
6. It is good to have 20 minutes long videos if possible
7. Best to do the recording in the home and score immediately (the two evaluators do the scoring, each one separately). Also ask mother some questions how she felt about her performance ... and of course afterwards compare the scoring of the two evaluators to come up with a third one. Questions for the mother: in the pre-intervention home visit when you are doing the filming ask the caregiver "In which situation in your daily life do you find it the hardest for you to handle your child's behaviour?" And in the post-intervention filming visit ask "How do you now (after participating in ICDP) handle that difficult situation we talked about before?"