COCP PROGRAMME

Communicative Development of nonspeaking children and their Communication Partners

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The COCP Programme

**General goal**
Children develop communicative skills in interaction with their caregivers in natural occurring everyday situations. The communicative input of adults and their responses to communicative attempts of the child form the basis of this development. Adults who regularly interact with the child play an important part in this development. General goal of the COCP-programme is to promote the communicative interaction between nonspeaking children and their communication partners in order to create optimal conditions for the development of communicative skills. Children have to learn to communicate effectively and efficiently with various communication partners in a variety of interaction situations. In order to be able to do this, two basic conditions have to be fulfilled: children have to have **access** to communication modes appropriate to their capabilities, and communication partners have to give them sufficient **opportunities** to communicate.

The COCP-programme addresses the children and their adult communication partners:

1. Intervention with the child is aimed at ensuring access to communication through the development of an appropriate individual communication system. An individual communication system includes communication aids, changes necessary in the physical environment, and the selection of vocabulary.

2. Intervention with communication partners is aimed at ensuring enough opportunities for the child to communicate by adapting their interaction style and communication input to the capabilities of the individual child.

**Communication group**
Around each child a communication group is formed out of all important communication partners of the child from both the home and institutional setting. The group may consist of parents, grandparents, other family members, neighbours, babysitters, and taxi drivers on the one hand and teachers, teacher’s assistents and therapists on the other. All members of the group are actively involved in all phases of the intervention process and take joint decisions on individual intervention goals and plans.

The speech therapist, the occupational therapist and the special education professional are responsible for the coordination of the programme and for carrying out all different activities within the COCP Programme.
Structure of the programme

The programme consists of four phases:
A assessment: background information, tests and observations,
B goal setting and formulation of an individual intervention plan
C intervention
D evaluation.

These four phases are worked out in the seven steps of the COCP intervention model presented on the next page. The model is cyclic in nature. On the basis of an extensive assessment of the child and situation an intervention goal is set and subsequently worked out in a concrete plan. With this plan intervention takes place: the development of an individual communication system and instruction and support for communication partners. Partners learn how to maximally stimulate the child so that s/he learns to communicate: to express communicative functions and to use augmentative communication modes. After six months the intervention is evaluated on the basis of a new assessment phase, which forms also the start of a new intervention cycle.

The COCP Intervention Model
Outline of the COCP Programme

Assessment Phase: Step 1, 2, and 3

Step 1  Gathering background information
- Written information: leaflet with information about the COCP-programme and the active involvement of parents and other communication partners;
- Parent interview: information about interaction environment and important communication partners;
- Questionnaire: information from all identified communication partners about the child's daily activities, likes and dislikes, needs and skills, perceived problems of partners in communication with the child, and suggestions for intervention goals;
- Existing reports: information regarding medical history, diagnosis, prognosis and therapeutic and educational history;
- Assessment in context: evaluation of the communicative possibilities in every-day situations on the spot, also related to the activities taking place in these situations.

Step 2  Assessment
- Cognitive level: formal tests (e.g. Bayley's Developmental Scales) or methods for systematic observation;
- Language comprehension: formal tests (e.g. Reynell), information form communication partners and observations;
- Sensorimotor functioning: observation protocol for sensorimotor abilities that could be trained for communicative purposes (communication access);
- Proposal communication system: motivated written proposal on the basis of the sensorimotor observations and the other assessment results.

Step 3  Observation interaction
- Analysis of videotaped interactions in (at least) two contexts: to describe the range and frequency of functions and modes used (expressive communication). Categories of functions and modes are listed on page 8);
- Reports of communication partners: information regarding partners' perceptions of the child's communicative behaviours (functions, modes);
- Evaluation of partner strategies: observations of partners' interaction style with the list of ten strategies to facilitate communication (see page 9).
Phase Goal and Plan: Step 4 and 5

The focus in this phase is on cooperation in the communication group (all important communication partners). The first group meeting starts with a general introduction to interaction, communication, language and development. The group members receive instruction focused on different communicative functions and communication modes and on strategies to stimulate communicative interaction. Fragments of videotaped interactions illustrate the instruction. In all following intervention cycles the preceding intervention period will be evaluated in a group meeting and a goal and plan for the following period will be discussed.

Step 4  Goal setting

Group meeting: in a group discussion the assessment results are reviewed with communication partners, illustrated with videotapes. The general goal of intervention is to encourage reciprocal turn-taking patterns and symmetry in topic initiation. The general goal of partner training is to increase their responsiveness. In addition to these general goals, the team identifies specific skills (functions, modes) as priorities for intervention and select one function or mode as an intervention goal.

Step 5  Intervention plan

• Preparation of an individual communication plan in the group meeting:
  - Each communication partner identifies opportunities which occur in natural situations for the child to learn the targeted skills;
  - Appropriate, effective and efficient modes are selected related to different functions and contexts (new functions will be introduced using a mode already within the child's repertoire and new modes will be introduced as a means to express functions already acquired);
  - An inventory of required vocabulary items (content/form) for each context will be made, and, depending on the selected mode(s), appropriate symbols (manual signs, photographs, pictures, graphic symbols, words) will be selected;
• Decisions about the communication system: on the basis of the proposal the group decides which (new) components the child needs in his/her communication. If required, communication aids and/or adaptations will be selected to meet the needs of the child in various environments;
• Writing of an individual communication plan: on the basis of the discussions in the communication group, a communication plan will be formulated. In this plan the general facilitating partner strategies are translated into concrete steps to support the targeted skills (see example on page 11).
**Intervention Phase: Step 6**

In this phase all communication partners stimulate the child to participate in interaction effectively and to express the targeted function in the selected communication mode(s) according to the plan. In addition, the communication system will be developed, expanded or adapted.

*Step 6 Intervention*

- Guidance of communication partners: interaction with as many partners as feasible is video-recorded. The recorded interaction is discussed individually in the light of the ten strategies and the communication plan. Partners are provided with feedback and encouragement. Partners are supported by an AAC specialist individually and/or in small group meetings of different formations;
- Communication system: selected aids and other (adapted) devices are developed and given to the child;
- Selection of vocabulary based on the following resources:
  - the vocabulary items mentioned in the communication plan,
  - a list of 100 core concepts scored by communication partners according to the importance for the child,
  - information on important activities and situations gathered through the questionnaires and the assessment in context (see Step 1),
  - estimates on cognitive level and language comprehension (Step 2),
  - special lists in the communication book of the child where partners can indicate which vocabulary items they would have needed while interacting with the child;
- Selection of symbols: symbols are selected in relation to the modes the child needs access to (speech, gesture, graphic symbol);
- Communication aids are provided with pictures of signs and/or graphic symbols (pictures, pictograms, graphic symbols) in discussion and cooperation with the child where possible.
Evaluation Phase: Step 7

**Step 7 Evaluation**

- Repeated assessment: at 6-month intervals, most assessment steps are repeated as a basis for the evaluation and the setting of new goals and plans;
- Evaluation goal, plan and process: the entire communication group comes together to evaluate the intervention process, the child’s current communication status, and changes in partner strategies (see Step 3). Video-recordings are used to illustrate (changes) in strategies, to elicit discussion about problems and to discuss possible solutions. The plan is evaluated and revised or new priorities are selected as required;
- Evaluation questionnaire: after the decision is made that the COCP-programme for a particular child will stop, all members of the communication group fill in a questionnaire in which they are asked about the process and the outcomes of the intervention. The results are discussed with the members of the communication group at their last meeting.

<table>
<thead>
<tr>
<th>Early Communicative Functions</th>
<th>Communication Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attention to partner</td>
<td>Facial expression</td>
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<tr>
<td>2. Indication of interrupted activity</td>
<td>Eye gaze</td>
</tr>
<tr>
<td>3. Turn taking within an activity</td>
<td>Body movements / actions</td>
</tr>
<tr>
<td>4. Acceptance of object offered</td>
<td>Pointing</td>
</tr>
<tr>
<td>5. Protest/rejection</td>
<td>Manual signs / gestures</td>
</tr>
<tr>
<td>6. Communication of choices</td>
<td>Vocalisations</td>
</tr>
<tr>
<td>7. Greeting/closing</td>
<td>Use of sound making objects</td>
</tr>
<tr>
<td>8. Request for assistance</td>
<td>Speech</td>
</tr>
<tr>
<td>9. Request for object/action</td>
<td>Tangible signs</td>
</tr>
<tr>
<td>- within immediate environment</td>
<td>Photographs</td>
</tr>
<tr>
<td>- outside immediate environment</td>
<td>Pictures / drawings</td>
</tr>
<tr>
<td>10. Request for attention</td>
<td>Graphic symbols / alphabet</td>
</tr>
<tr>
<td>11. Answering yes/no questions</td>
<td></td>
</tr>
<tr>
<td>12. Commenting on objects/actions/events</td>
<td></td>
</tr>
<tr>
<td>- within the immediate environment</td>
<td></td>
</tr>
<tr>
<td>- outside the immediate environment</td>
<td></td>
</tr>
<tr>
<td>13. Request for information</td>
<td></td>
</tr>
<tr>
<td>14. Expressing feelings/thoughts</td>
<td></td>
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<tr>
<td>15. Joking and pretending</td>
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</tbody>
</table>
Strategies to facilitate communicative interaction

1  Structure the environment

Structure the physical environment and position the child to encourage and elicit communication. When you interact with the child, be sure that you are in his/her visual field. Face to face interaction is preferable. Make use of activities appropriate for the child's interest, age and skill level.

2  Follow the child's lead

Attend carefully to the interests of the child within the environment (people, objects, activities) and acknowledge these interests. Respond to all attempts to initiate social interaction and to all the needs/requests communicated by the child.

3  Create a shared focus

Keep your attention on the child from the moment the interaction starts and ignore interruptions from the environment unless you involve the child or conclude the interaction with the child appropriately. Attract the child's attention to an object, activity or person as necessary in the context. Do not force the child, but attract the child's attention in ways which are appropriate for the child and the situation. Try to wait for or to establish eye contact before you focus the child's attention on an object/person/activity.

4  Provide opportunities for communicative interaction

Recognize and set up opportunities for the child to take turns in interaction with others (e.g., greetings, offering choices, or turn taking activities). Give the child a turn each time you have finished your own turn. Don't set up special exercises or training sequences for the child, but offer opportunities in natural occurring situations when you are already interacting with the child (playtime, daily care, therapy session).

5  Expect communication/interaction which is appropriate for the child

Show the child clearly that you expect communication. Expect communication about things which the child knows and understands and which is appropriate considering his/her physical status and communication skills.
6  **Pace the interaction (pause)**

Interact at a pace which gives the child sufficient time to participate. Give the child sufficient time to respond to your own communication and to things that happen in the environment. Count till ten before you make a new attempt to elicit a reaction. Give the child also enough time to initiate interaction. Make sure that the child has finished his/her communication turn. Pause also after a child's turn: wait a few seconds before you take your turn.

7  **Provide models for the modes within the child's repertoire**

Demonstrate to the child how he/she can communicate. Use modes of communication which the child could use expressively to participate in communicative interaction.

8  **Provide appropriate language input**

Use language (speech, gestures/signs, graphic symbols) which the child is able to understand. Make sure that the child understands the topic you are communicating about (content). Don't use sentences which are too long or too many sentences in one turn (amount). Adapt the language form to the level of the child. Don't use complex sentences and be sure that the child can understand the communication mode. For example, don't use words, signs of graphic symbols if the meaning is not clear without contextual cues.

9  **Prompt**

Encourage the child by appropriate verbal/nonverbal means (e.g., body posture, facial expression, speech, touching, pointing, gestures of actions) to take a turn when s/he has missed an opportunity to do so. Prompts should be as minimally intrusive as possible. If the child (after a long pause) doesn't respond to the prompt, increase the intrusiveness of your prompts step by step. Possible sequence of prompts (in order of intrusiveness):

- look expectant to the child,
- touch the child,
- make a question gesture,
- give cues for the way in which he/she could respond (look or point to the communication device or make a few signs which fit the situation),
- offer full physical assistance (make the sign together of point together to a graphic symbol).

10  **Reward all communicative attempts**

Respond to all attempts of the child to communicate. React to the topics initiated by the child and take his/her reactions to your communication seriously.
Communication plan

Child: Yvette
Communication Partner: her mother
Date:

Communicative Function: Request for Attention: initiation

<table>
<thead>
<tr>
<th>Opportunities for Communication</th>
<th>Communication Modes</th>
<th>Content/Form Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shopping with mother</td>
<td>horn</td>
<td>NA</td>
</tr>
<tr>
<td>2. While mother is doing</td>
<td>horn</td>
<td>NA</td>
</tr>
<tr>
<td>household activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Walking outside</td>
<td>horn</td>
<td>NA</td>
</tr>
<tr>
<td>4. When therapist is getting</td>
<td>horn</td>
<td>NA</td>
</tr>
<tr>
<td>material for therapy session</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Support Required:
1. If Yvette is sitting alone or playing on her own and you are doing other activities, ensure yourself that Yvette's horn is positioned in a way that she can operate the switch easily.
2. When Yvette calls you with her horn, respond immediately by approaching her and giving her attention. Say something like "you called me, here I am!".
3. If Yvette tries to attract your attention by crying or squealing, move into her visual field at a distance, look at her with a clear questioning glance for a while, and then continue with your own activities.
4. If Yvette still has used her horn after ten seconds and is still crying or squealing, move again into her visual field, look from Yvette to her horn and back to Yvette again while pointing to the horn (modelling).
5. Look at Yvette in an expectant way and pause 10 seconds.
6. If Yvette still doesn't use the horn and continues to squeal, approach her and give her full physical assistance in using the horn. Say for example "You wanted to call me? You can use your horn and I will come to you straight away!"
7. If Yvette stops squealing without having used the horn, but doesn't protest any more, continue your own activities.
Overview of COCP publications and activities

The COCP-programme was developed at the University of Amsterdam in collaboration with the Dutch rehabilitation centre Heliomare in Wijk aan Zee (1990 – 1992). The programme was implemented in Heliomare in 1992 and also in 1993 in Rehabilitation Centre Delft by means of in-service training of an AAC team. The implementation of the programme in Heliomare and Delft was extensively evaluated (Heim & Jonker, 1996). The manual of the intervention programme with guidelines for all activities, forms and other material was first published in 1996.

The effects of the COCP-programme on the communicative development and language acquisition of three nonspeaking children were studied longitudinally during 2½ years. The results of this study were published in a doctoral dissertation (Heim, 2001). Part of this study was also published in English (Heim & Baker-Mills, 1996).

Since 1995 one-day COCP workshops have been organized for the personnel of various institutions to introduce them to the COCP-programme and to give them a first helping hand in enhancing functional communication in social environments. Between 1995 and 2005 many institutions have requested this workshop. As from 1997 Heliomare has been offering institutions a COCP in-service training for AAC teams consisting of instruction, training and supervision which runs concurrently with implementation. This training lasts about 15 months. Diverse institutions have opted for this training indicating the wide range of application of the programme with various populations including the mentally and physically impaired with or without sensory problems. The institutions involved have been both care centres and schools.

In the period 2002 – 2004 a pilot implementation of the COCP-programme was conducted in Esdégé-Reigersdaal, a Dutch institution for children and adults with developmental disabilities (Binnerts & Jonker, 2006).

Last year the COCP-protocol was revised based on a comprehensive survey of the experiences of professionals from various disciplines in the institutions where the COCP-programme is implemented. This project resulted in a revised version of the COCP manual (Heim, Jonker & Veen, 2006).
References


