

# Therapy for Young Stuttering Children with Cognitive and Emotional Problems

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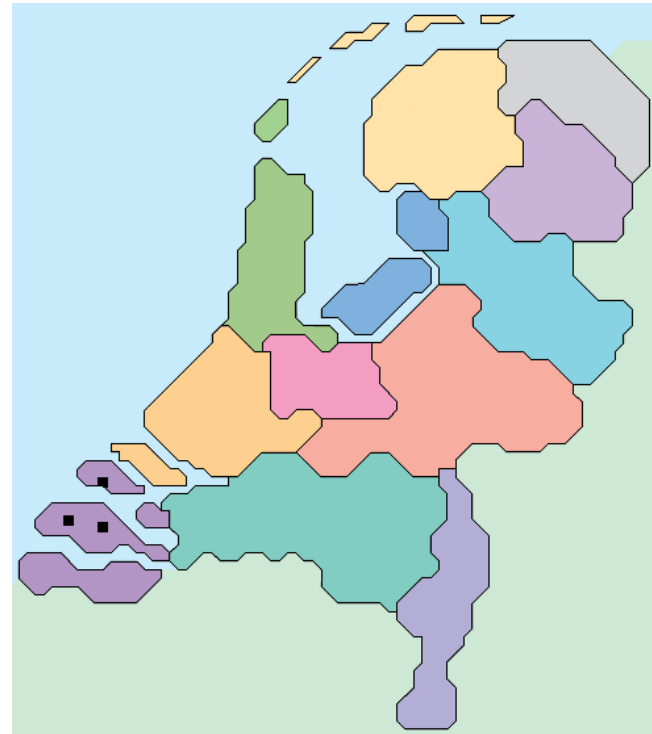
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# Stottercentrum Zeeland, the Netherlands Middelburg, Goes, Zierikzee

- Information
- Prevention
- Assessment
- Therapy
- Parent counseling
- Education (speech therapists)



# Overview of this presentation:

- Why this subject?
- Defining terminology
- Temperamental influences/ recognizing cognitive/emotional problems
- Intervention:
  - Therapeutic goals
  - Clinical decision making:  
indirect ↔ direct intervention, combination
  - Direct intervention strategies

# Why this subject?

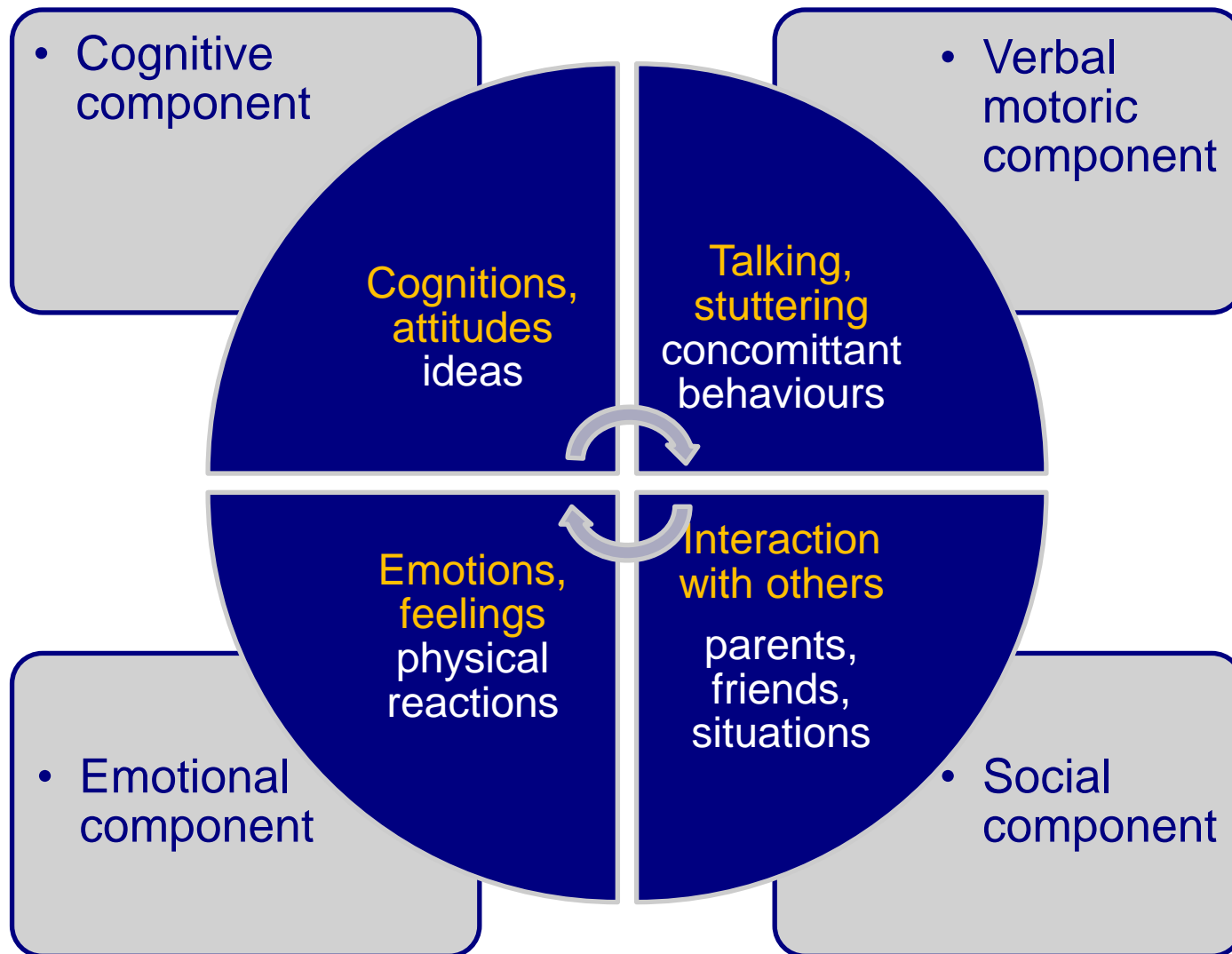
- Practice evidence
- Evidence based: implementation
- Recognition research findings
- Early intervention
- (Renewed?) interest in the impact of cognitions and emotions
- Secondary prevention

# Defining terminology

- Indirect therapy: working with important people around the child
- Direct therapy: working directly with the stuttering child itself
- Young stuttering children: children who are about (2) 3-6 years of age and who are 'diagnosed as stuttering'.

# Stuttering.....a problem?

Erasmus-4 component model, Stournaras , 1980



# Temperament (Rothbart, 2001)

- Constitutionally based and individual differences in reactivity and selfregulation
- Reactivity: biological basis, influenced by maturation and experiences
- Selfregulation: process that can facilitate or inhibit one's reactivity (the behavioural aspect of temperament)

# Information about temperament

- Interview parents
- Observing the (stuttering) behaviour precisely, always use video (interaction)
- Questionnaire Elisabeth Oyler/ other questionnaires about temperamental factors
- Talking directly with the child about his/her stuttering, adjusted to overall development



# Video Luca, cognitions and emotions?

# Awareness, video Julia, recognizing stuttering behaviour

# Evidence: Stuttering and temperament

(Anderson, 2006; Conture 2006; Eggers 2010; Boey 2010)

## CWS as a group

- score higher on anger, frustration, approach and activation
- score lower on inhibitory control and attention shifting
- score more sensitive and/or reactive
- score lower in self regulatory processes

This 'evidence' is recognized in clinical observations.

Besides we observe: CWS with 'high temperament' often:

- have advanced speech- and language development (metacognition)
- put high standards on one self
- show low frustration tolerance
- have problems in bio-rhythm
- develop more serious stuttering behaviours

- react more emotionally
- are fully aware of their stuttering problems, fast after the onset of stuttering
- react with anger and frustration to stuttering,
- show more severe motoric reaction
- develop more avoidance and struggle behaviour
- are reluctant to take risks

Strong mutual influences between high awareness and reactions from environment is observed

# High standards, video Guus

# Cognitions and emotions involved? When do we have to pay attention?

- Age boundaries?
- Time since onset?
- Specific stuttering patterns?
- Described phases in development?
- Or.....Individual development?

# Clinical decision making

The child itself indicates our  
therapeutic intervention  
strategies



# Temperamental factors: implications for the development of stuttering problems

- Reacting more emotionally: higher motoric activity → more struggle/ tension + (?)more secondary behaviour
- Lack of adequate self-regulation → more and faster loss of control/ less ability in problem solving

# Slower to adapt to novelty....

- tendency to be shy, withdrawn, fearful, cautious...in new situations (more avoidance behaviour)
- less frequent communicative practice
- less quality of verbal output →? less practice in language/ fonology?
- or....because of safe feelings: less challenge to move on in language development (specific avoidance behaviour)

# Lower in attention shifting and higher on focussing....hypervigilance

- less capable in choosing appropriate regulation strategies (low efficiency in suppressing inappropriate approach responses)
- less easy to 'move along' in general daily living and in stuttering/ speaking (more struggle and physical tension)

# Lower in attention shifting and higher on focussing....

- less responding to suggestions to change
- more resistance in daily living (raising the child) and during school/ therapy (education)

## In general:

- high temperament: more vulnerable to stuttering evoking factors
- high temperament: more severe stuttering behaviours and less ability to cope with it
- experience of more emotional arousal + experiences → implications for the conditioning processes in future

Therapy:

Specific temperamental aspects require direct interventions

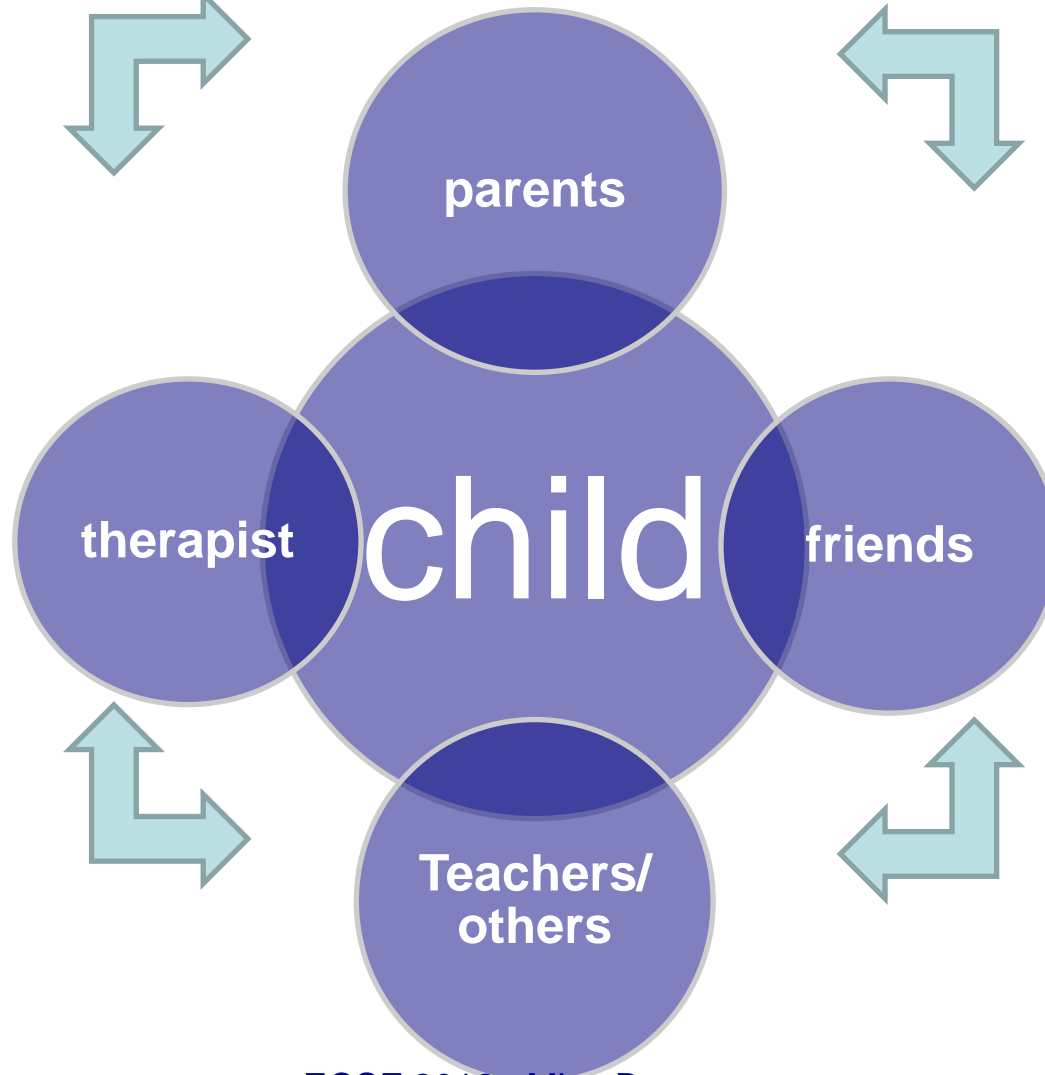
Continuous strong influence environment

Take into account: mutual influences of temperamental factors of the child and temperamental factors of the parents

**Direct therapy: always benefit from effects of preceding and/or ongoing indirect therapy!**

- **Stuttering -Demands & Capacities-**  
(Starkweather & Givens Ackerman, 1997)
- **Stotteren van theorie naar therapie**  
(Bezemer, Bouwen & Winkelman, 2006)
- **Palin PCI approach** (Kelman & Nicholas, 2008)
- **many other publications**

# mutual interaction child and environment





# Direct therapeutic intervention

- Despite continuous indirect attention: not enough results in child's fluency
- Parent counseling, SCZ: courses for parents, modeling, also dealing with temperamental aspects
- Talking must be or must have become enjoyable again
- Child must be understood, reassured
- Goals: adjusted to individual needs, to phase of development in general
- Integration of all 4 components (Stournaras)

# Direct intervention cognitions and emotions -topics-

sequence of items adjusted to individual or group average

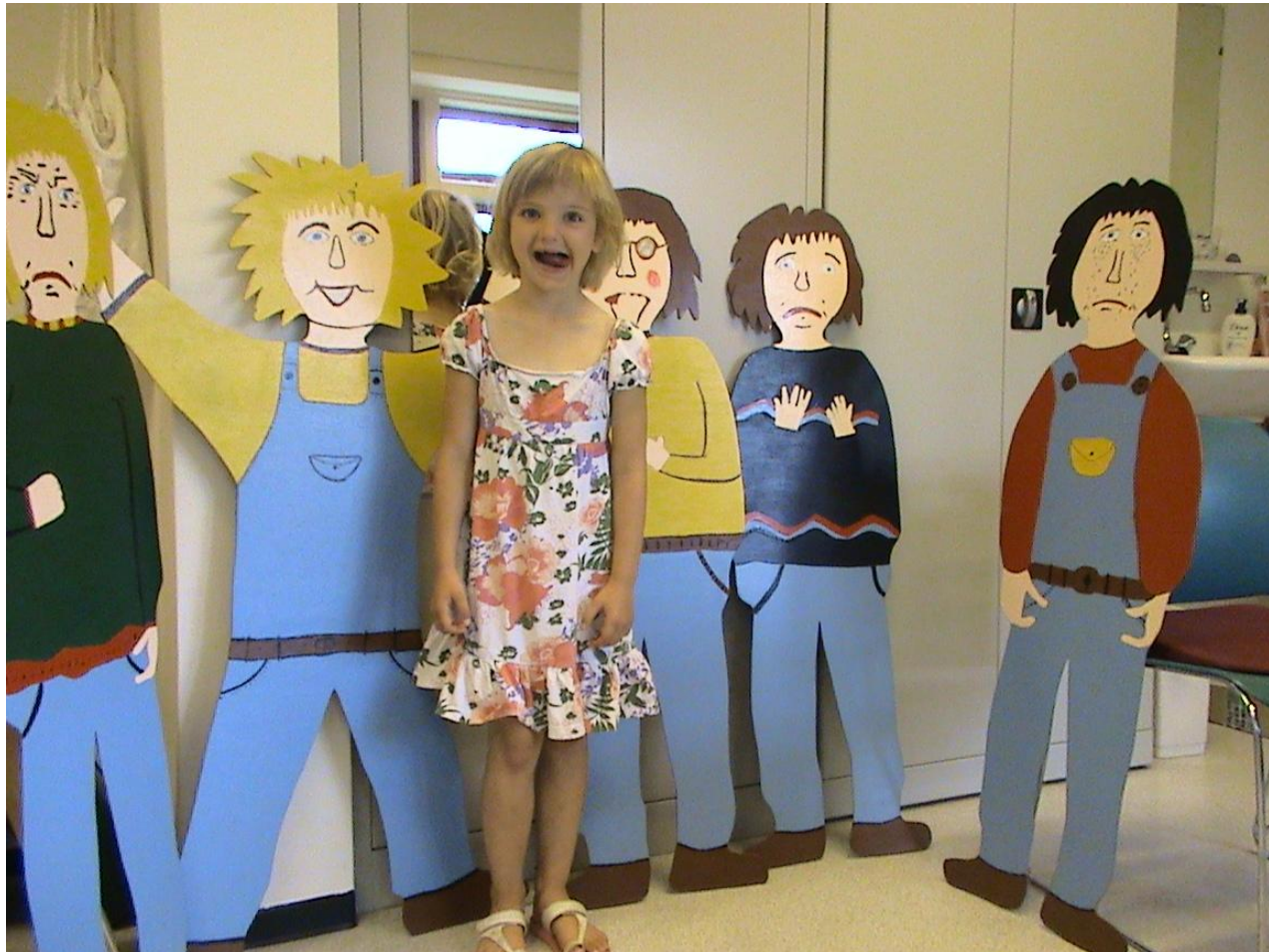
- Talking about talking and talking about stuttering
- Talking about cognitions and emotions, (+physical aspects)
- Tolerance/ desensitisation to stuttering
- Turntaking, waiting

- ‘Talking time’ and ‘listening time’
- Cognitive therapy for preschoolers: problemsolving strategies: turntaking, high standards, interaction others
- Talking in groups: improving pragmatic skills
- Experimenting with all kinds of speaking/ stuttering and (more) fluent speech

# Talking about speaking and stuttering, video Julia

# Cognitions and emotions.

doll's of the same height as the child give more recognition of the beginning emotions: sorrow, anger, fear, joy, (shyness)



# Benefits of learning to talk about cognitions and emotions (for all children! )

- More contacts, more initiative
- More curiosity, more interest → more experiences → more flexible in regulation
- Better in using communicative functions of language, increase pragmatic skills
- Longer turns in conversation, better turn taking
- Decrease physical tension → less struggle

# 'Making a mistake is not the end of the world'

## Discussion:

When working with adults, clinicians have to pay much attention to teaching the client to allow himself to make mistakes.

What about: adolescents? school age children? preschoolers?

When starts the learning process?

# Making a mistake, Luca and Juweiria



# Importance of verbalizing 'inner speech'

(Vygotsky, Meichenbaum)

- Inner speech activates and corrects one's own behaviour, gives possibility to self-instruction
- Inner speech colours how someone perceives stimuli/ situations (for instance: 'I am a fool, I'll never succeed!')
- Use of verbalizing inner speech: strong aid in selfregulation capacities

# Desensitizing to the moment of stuttering ('mistake')

- Indirect therapy was successful? Speaking is enjoyable.
- Talking about stuttering
- Listening to 'stutters'
- Gradually production of 'stutters'
- Daring to make 'stutters' is rewarding now

# Desensitizing from the start? Fedde

# Desensitizing for the moment of stuttering

- Verbalize inner speech = cognitive support
- Gradually cognitive learning
- Transfer (modeling)
- Confronting daily
- Frustration tolerance ↑

# Video: desensitizing

# Turn taking, resisting time pressure, waiting

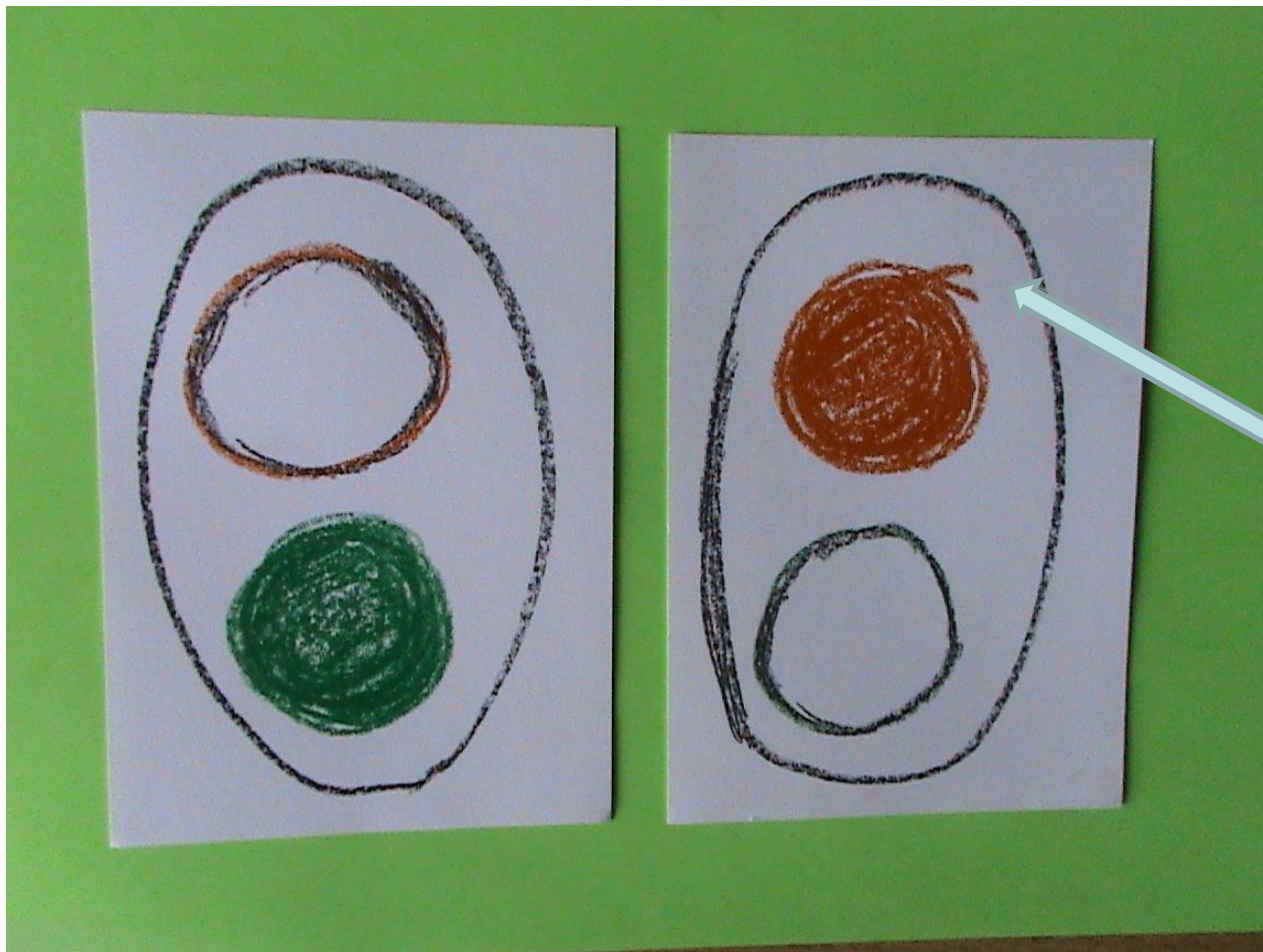
- Turntaking, from turns in a row to turns indifferently, short and long turns!
- Verbalize inner speech, change regulating behaviour, accompany turn taking cognitively
- Compare to other game-, daily life- and speech situations
- Bring in others (modeling, transfer)

# Talking-time or listening-time?

- Draw with the child several speech situations.
- Judge and discuss: suitable for talking?
- Introduce the 'talking light'/'traffic light'
- Possible regulation strategies/ problem solving
- Use a 'talking doll' as a model. 'Joost' is also stuttering.



# Traffic light/ talking light



Making a mistake?



# Problemsolving, e.g. making 'mistakes'

- Involve parents/ others (models!)
- Coach parents!
- Provoke a concrete situation or draw a remarkable situation
- Discuss what is going on, cognitions? emotions? consequences? (SORC)
- Cognitive influence possible?

- Invent several solutions, draw them
- Roleplay, experience a diversity of solutions
- Judge the alternative solutions, choose some
- And what does 'Kiko' think about this? (independant judgement)
- Discuss and/ or experience frustration tolerance

# Problemsolving, consider several solutions



# Role play several solutions, Luca in group

# Hats facilitate to put oneself in someone's place during role playing



# Effects of desensitizing and cognitive training

- Speaking situations evoke less stress/ anxiety → improved self confidence
- Child doesn't need secondary behaviour anymore
- Improved self regulation: cognitively, emotionally, socially, verbal motoric
- Safe foundation to start verbal motoric interventions if necessary
- Secondary prevention

# Video Luca and Juweiria: daring to stutter / stuttering easier

# Long term benefits of direct approaches

Conclusions from practical based evidence:

- Striking change of struggle and avoidance behaviours
- Improving amount of speaking
- Talking with the child about stuttering much easier for the parents/ caretakers
- Safer base for verbal motoric intervention



# Long term benefits of direct approaches

- Relapse: stuttering is open to discussion
- Parents less sensitive about the stuttering, no taboo
- Stuttering problem can better be analyzed
- Improved regulations, future therapy strategies can be continued on a higher level of child's development
- Probably less stuttering problems in future

# Decrease sensitivity to the stuttering event:

- Increases self confidence
- Increases problemsolving
- Promotes enjoyment of speaking
- Breaks the link between 'stuttering' and being 'out of control'

**Conclusion: surface fluency at cost of  
avoidance is no control at all!**

# Long term benefit of early direct intervention, Luca

*Thank you!*

*Questions?*

*[www.stottercentrumzeeland.nl](http://www.stottercentrumzeeland.nl)*

*also for workshops on stuttering therapy*

*(for speech therapists)*