

T A I L O R

A tangible research tool for exploring affective, behavioural and cognitive expression and reflection on the stuttering experience of children in middle childhood.

process



Explore

Low-fi prototyping
Literature study
Framing research

Key insights:

Focus on the ABC's is important in therapy for children that stutter, methods and tools are lacking.^{1,2}

Key insights:

At this age it is important that parents are involved and understand their child

Making a connection between thoughts, feelings and the body has a positive influence on relaxing the 'speechdevice'.

a "necessarity" for the parent and the therapist. How to involve the child?



Emphasize

Contextual inquiry
Physical flow models and communication models
Qualitative interviewing of multiple stakeholders



Design research prototype & iterate

Creating value maps
Ucreate model
Quick and dirty prototyping
User evaluation of research tool

Key insights:

Provide more opportunities to give the child a voice.

More subtilites in research prototype

Define research goals more clearly



Prototype research tool

In close coöperation with therapist, parent and child



Pilot study and final study

Semi-structured interviews
Observations



Analysis

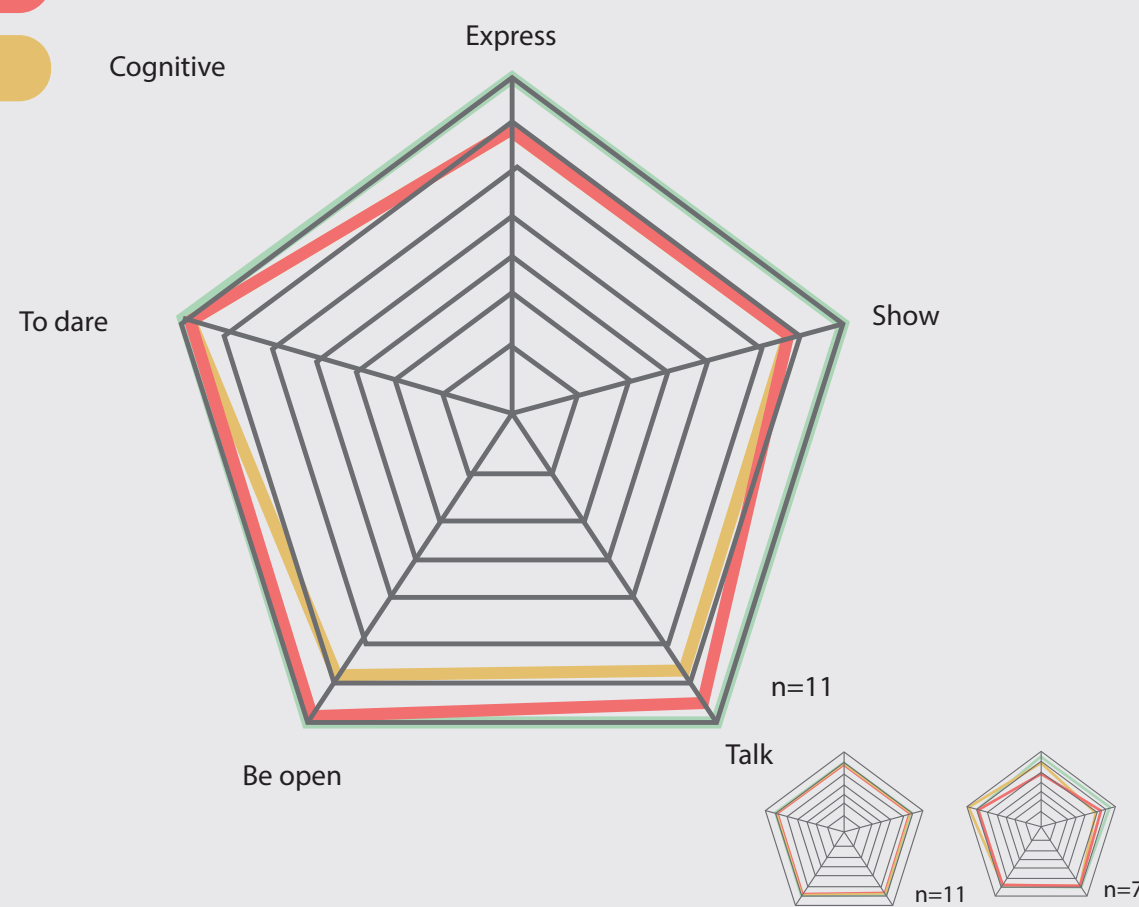
Descriptive analysis - quantitative
Thematic analysis - qualitative
Observations schemes - qualitative & quantitative

How does a 'playful tangible toolkit' for children, in middle-childhood who stutter, influences expression of; reflection on the affective, behavioural and cognitive component of the stuttering experience?

How does this support a stuttering child during treatment?

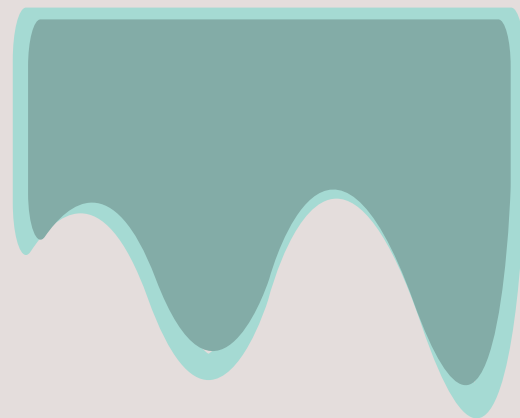


Expression



The tangible toolkit mostly positively influenced affective expression. The behaviour component was expressed in terms of body gestures, the cognitive component was hard to express with this tangible toolkit.

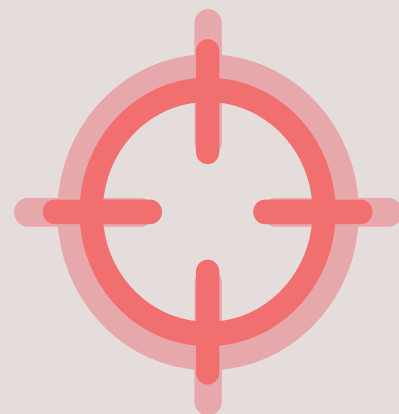
"Comparing to the regular methods, this tool encourages children to be more **open** about it and is **makes them dare more**"



Abstract

The abstract forms provided opportunities for children to be creative and use their imagination. Which resulted in a more elaborated conversation about their stuttering experiences.

"The abstract forms makes it not too predictable, a child can release it's fantasy on it. You will reach the bottem layer, what is behind it?"



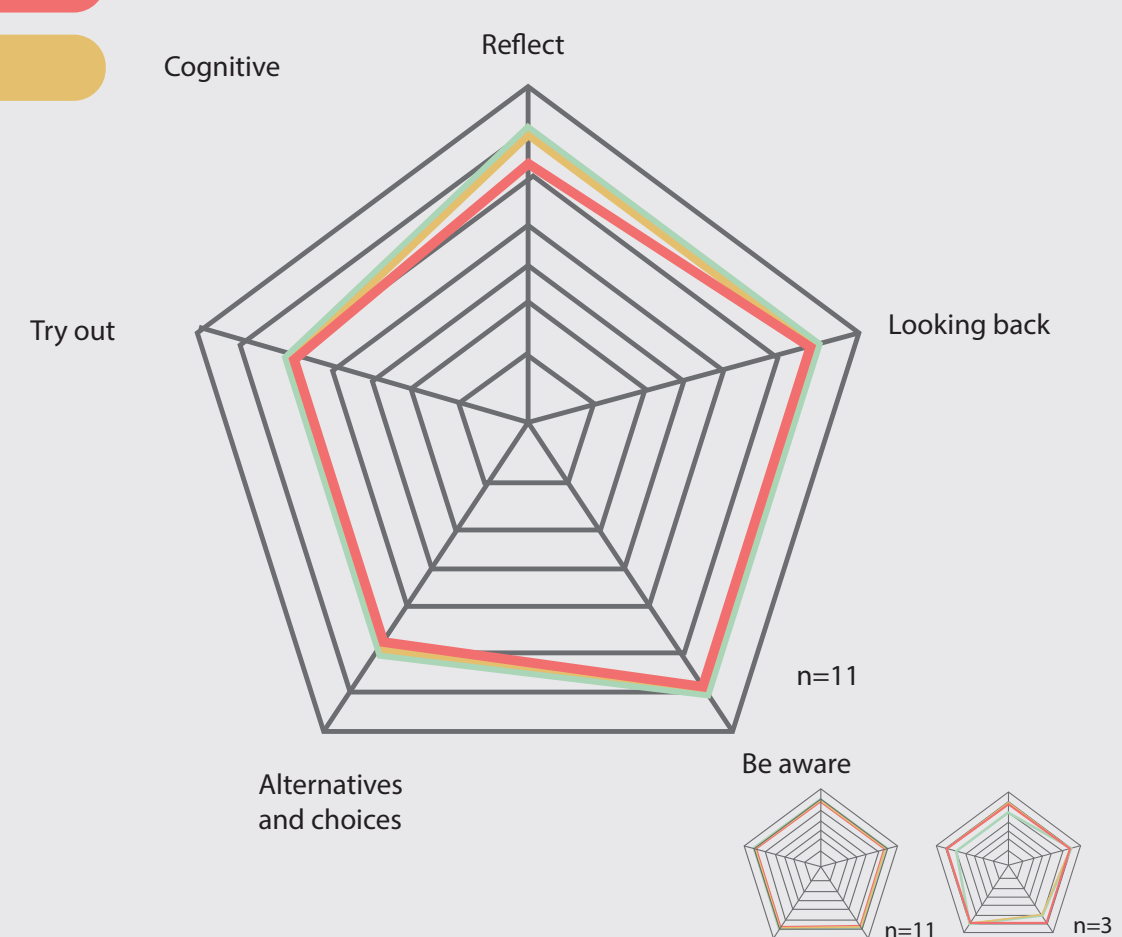
Distance

The primaire attention is on the puppet, this resulted in a more open conversation.

"Normally he would lay down in the chair, when you take away the focus on him, it helps him to talk about it and the reflection on it is also easier."

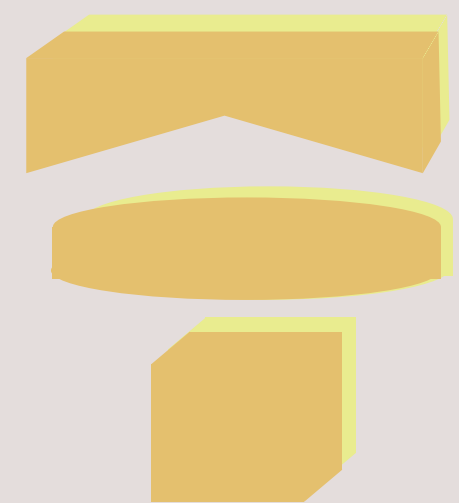


Reflection



The affective component was mostly reflected on in terms of reflecting on embodied feelings and basic feelings on the first three steps of reflecting. Reflecting on the cognitive and behaviour component with this tangible toolkit was less.

"The tangible toolkit helps to reflect on feelings in the body. It makes is more concrete and it makes you pay more attention to it."



Multi Layered

Children can exactly indicate where they feel what because it's differentiated between segments.

"I thought the tension was in her neck, but she indicated with this puppet that she feels it in her belly."



Characteristics of shape > symbolic

Participants often used the shape characteristics of the blocks to explain an intern or extern feeling in a certain part of their body.

Colors were used to indicate happy or angry feelings. Size was often used symbolic to describe how they felt.

From the perspective of a child

A child can make invisible things in her body very visual, this can be an eyeopener for parents and therapists.

"I hear more than normally, he can explain how he experiences it, this really helps us."

"I now see that he still has no connection with his body, we should work on that"

An eyeopener for parents and therapists

The focus on therapy is often on the behaviour aspect of stuttering, it's important to recognize the importance of expressions and understanding the affective and cognitive component of stuttering.

"I think it's good that there finally is a tool for children, where it visually makes clear that stuttering therapy is related to the body, emotions and thoughts."

Involves the child

The child itself can best indicate what it feels and what it needs.

"What I always miss is that it is usually more us thing than his, with the puppet and the app it makes it more his thing."

1. Van Jaarsveld, T. (2007). Personal interview with speech-language pathologist.

2. Bennett, E. M. (2006). Working with people who stutter: A lifespan approach. Upper Saddle River, NJ: Pearson Education.