

**David Grupe ISNA Switzerland:
Facilitating Communication using the “Crdl”.
Study on (n=57) interventions with people having a
dementia or cognitive disability.
Effectiveness also in combination Crdl and Snoezelen.**

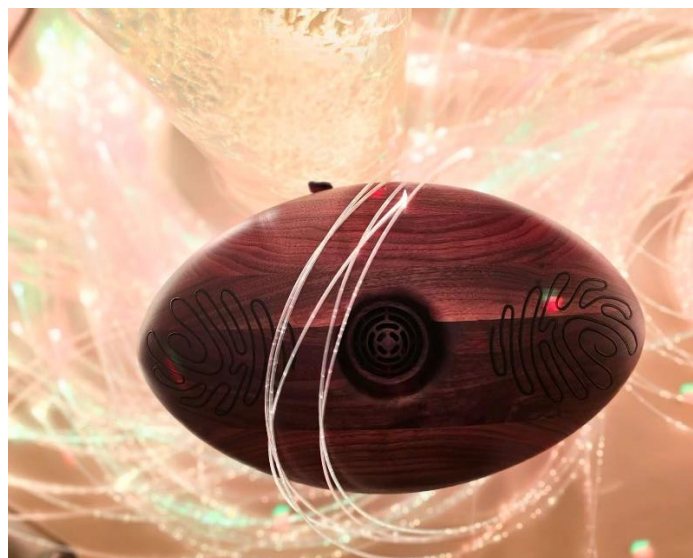
Crdl (pronounced like Cradle) is a care instrument designed to create impactful connections between people with intuitive moments of attention, proximity and affection. It is particularly useful for persons who have difficulty with verbal communication and/or social interaction, such as people with dementia, autism spectrum or intellectual or visual impairment.

This article is to share the idea of the Crdl and analyze its potential in care facilities, therapy situations and its use in Snoezelen. Our empirical study is ongoing since April 2023 by ISNA Switzerland (International Snoezelen Association Switzerland) www.isna.ch. This study evaluates the effects and results in more than 50 interventions with people who are in different stages of dementia or have special needs/cognitive disability. More interventions will be documented and analyzed in 2024, the goal is n=200.

The results show the wide possibilities of Crdl in:

- everyday interventions,
- in physical, psychological and emotional care
- and therapeutical situations,
- in Snoezelen and MSE sessions
- as well as in social interactions.

Crdl encourages users to experience meaningful and emotional moments together. It can be further explored by integrating the concerned person, their families, the whole staff of caregivers and therapists. The Crdl can also be used in group settings for interaction between the residents.



Aims of the Crdl and overview of results

The idea of Crdl is to combine touch, communication and social interaction with harmonic sounds. It transforms touch into sounds and it creates interactions with joy and ease. One of its main aims is to prevent social isolation and to help socially isolated individuals communicate. Furthermore, there are many additional effects to observe in the study, p.ex. increasing curiosity, more outcome of verbale communication (also for people who haven't said a word in weeks/months), having pleasure being touched and other positive reactions.

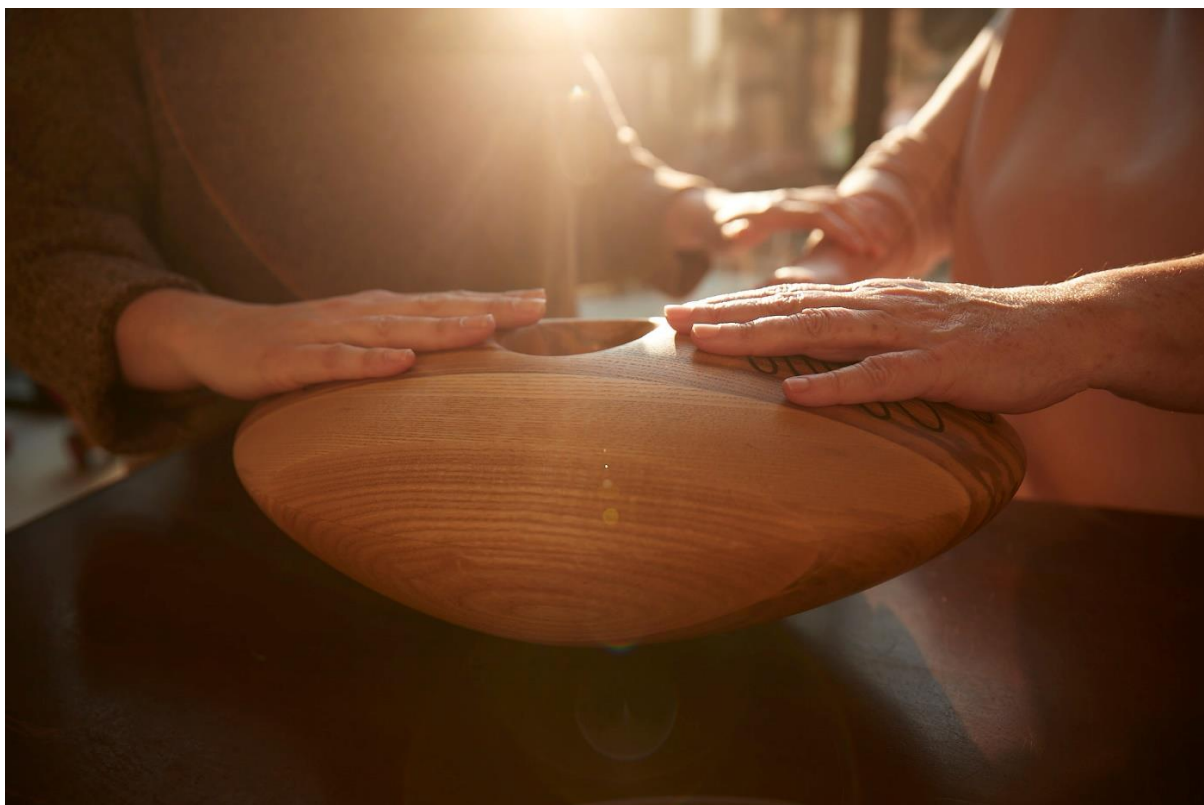
Combination CRDL and Snoezelen (MSE)

ISNA Switzerland often uses the Crdl in Snoezelen sessions. The protective and relaxing atmosphere in Snoezelen-Rooms or settings with mobile Snoezelen help to boost the positive outcome. The interventions with the Crdl in the Snoezelen Room gave 100% positive reactions. It seems that the disturbance-free and controlled sensory environment combined with the full attention of the accompanying person, are the main factors to this highly positive outcome.



Crdl Experiences

The CRDL is a round-shaped wooden body that by its natural form invites to explore. It enhances sounds by touching. The means of communication in CRDL is at first not language, but sound through shared touch. The Crdl's design is inspired by nature's balance. No electronics are visible and thus the attention is not taken into technical exploration. More than 60% of the users are directly motivated to explore the Crdl by their hands. Thus, the first contact on the Crdl is established and the experience can begin.



At first, when the two persons touch the Crdl and explore it, there is silence and no sound enabled yet. At this moment (can last several seconds up to a couple of minutes) all concentration is on the touch and exploring the wood is possible. Going one step further is when one person can touch the other person while keeping contact to the Crdl: at this moment it's the "WOW effect", there are sounds in connection to their touching.

The understanding of Crdl is intuitive, making it easy for patients and caretakers to utilize. Touching between the users enable the sounds. Both, those being cared for and care-givers, can be active in touching or being touched. Different kinds of touching are transformed in various sounds: Possibilities of touching are such as tapping, stroking, holding, tapping, or kneading. They produce a different sound or noise.

As the quality and the quantity of touching can be adapted to the preferences of the participants, the Crdl experience can easily be accorded to the individual wishes and needs to be more or less active/passive. It becomes a very personal, intensive experience.





Crdl and Communication

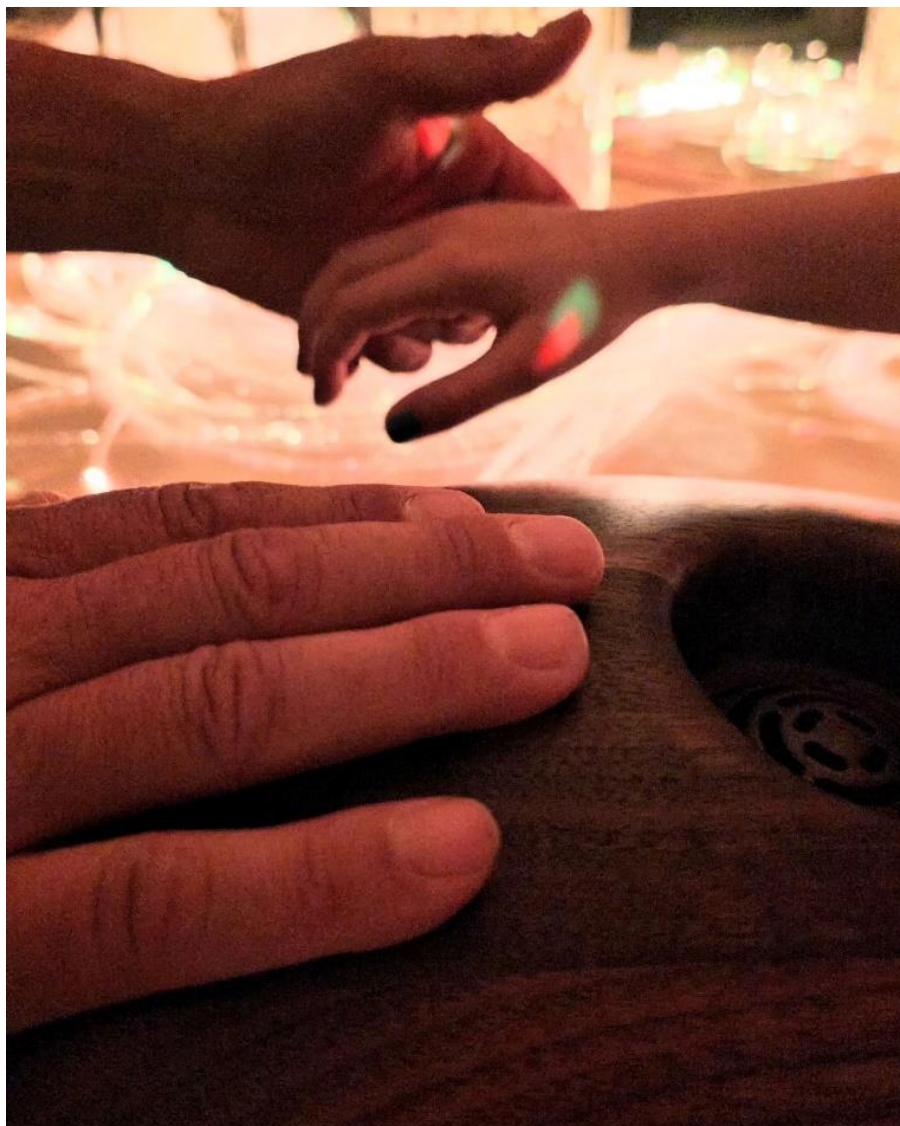
Communicative action means that at least two people are doing something together.

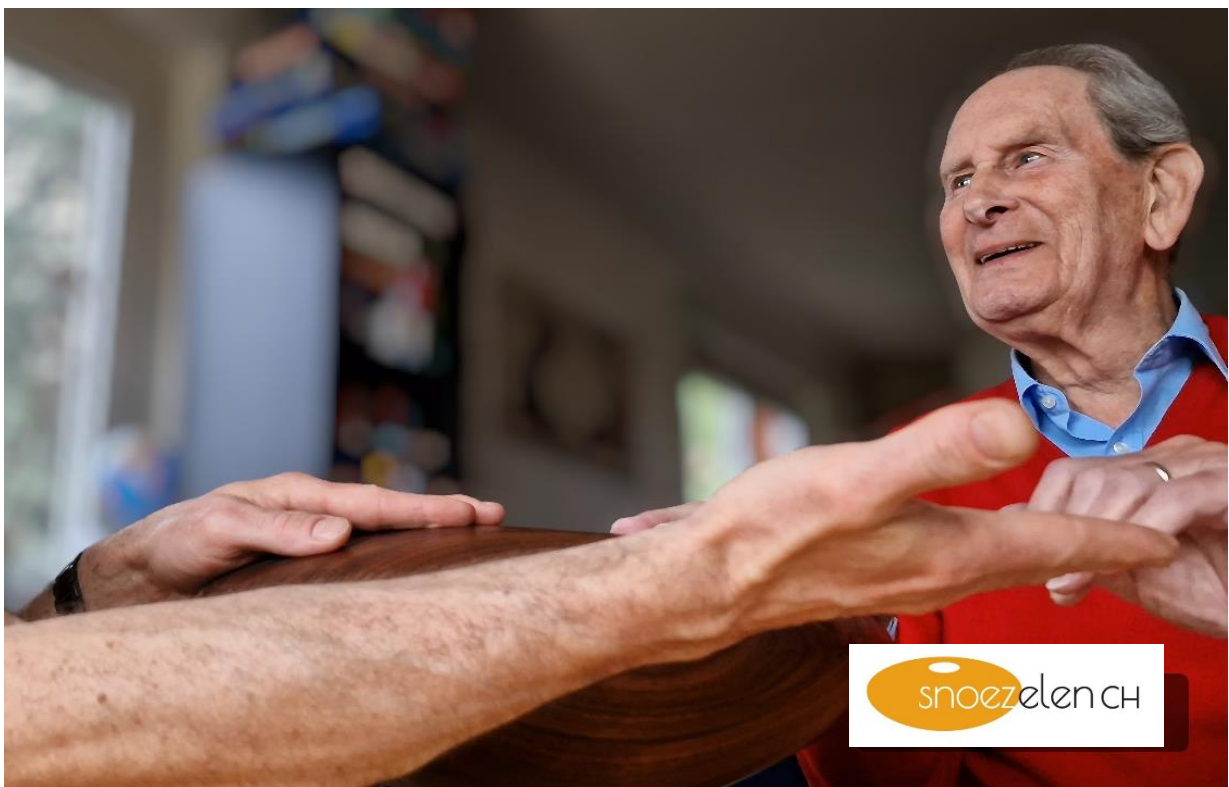
Creating the physical contact helps build a relationship between people, here by using a mean (the Crdl) that transfers touching directly to sound. And given the cognitive disorders or cognitive limitations of the persons accompanied in this study, it was observed that the cause-effect is understood intuitively. This seems one of the main factors for the highly positive results. The person perceives: When I am touched, I hear something. Sound and touch are related to each other. A dialogue arises. This is a conversation between two people, with or without words. Both people notice that our touch makes something happen! You with me and I with you, we are both in a tangible and audible connection. When I touch you, I change the sound depending on the type of touch. If you touch me, the CRDL also changes the sound. This functioning is intuitively understandable and less

depending on cognitive understandings. Therefore, the results show the persons using it are motivated to explore joyfully.

The Crdl has several soundscapes preinstalled which can be personalized. Furthermore, additional and self-created sounds can easily be added via an app. The companion can therefore create a very individual sound story. In the study a Senora coming from a farm in Northern Italy had so much joy with farm-related sounds and a self-created Soundscape of Italian music.

Touching, hearing and, if necessary, accompanying words or smiling as a means of communication support the relationship with the other person. Through the CRDL and the resulting communication, people come easily into contact with one another. If family members are not comfortable about touching the other person, the CRDL can help them to overcome this feeling. In one case a family member was not happy to visit his father in the Elderly Home because of the lack of verbal communication. Using the Crdl, verbal communication was not necessary to have beautiful interactions. He said: "Time flew by and it was fun. We haven't had that in a long time"





Reactions of G. (90 y, no cognitive or verbal disorder: joy, wellbeing, laughter.

Family members shall be subject to further research. It was obvious but needs prove that the Crdl makes it easier to touch the other person. And it opened the willingness to also be touched.



Reactions of J. (85 y, with a dementia): laughing, interaction, curiosity

Observations and results

The observations of reactions of the study showed that the CRDL reduces the rejection of touching someone in almost all cases. As it is also possible to give a massage or to wash a person using the Crdl and so having sounds accompanying the washing movements, care interventions can have another dimension. For this, the patient shall just have a physical contact with the Crdl, this can be a foot or even the cheek, whatever is possible and comfortable for the patient. The person's focus is less on the caring act but mostly driven to the creation (active or passive) of sounds. It is especially effective with patients rejecting touches and physical cares.

The CRDL can also be used for group offers. In the study, three family members communicate with their dementia-suffering relative using noises or sounds. If several people touch hands and two of them are connected to the CRDL, the sounds and melodies are also generated. This creates a new form of being together and having a multiple positive connection.

In more than 2/3 of the observations, already the first "meeting" with the Crdl showed a positive overall experience for the patient. And in more than 90% for the care staff the staff's experience was rated positive or very positive, which is a very important factor in questions how to motivate staff and improve care situations/conditions.

In an earlier report the use of Crdl was states with the following outcomes:

Increasing of <ul style="list-style-type: none">• Mutual contact• Improved alertness• Increased initiative• Reminiscent application• Attention• Relaxation• Social interaction• Positive wellbeing	Reduction of: <ul style="list-style-type: none">• Agitation• Apathy• Agressive behavior• Depression• Misunderstood behavior• Restlessness• Loneliness• Discomfort
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Observed and reported effects based on user evaluations (n>1.350 Crdl's per 12-2022)

Using CRDL is a unique experience. As it combines touch and communication and interaction, it has other effects than playing music or listening to music. The people themselves and their mutual contact and movement is transformed into sounds.

The Crdl can ultimately bridge the gap that people need to communicate. And for those who have less or no difficulties in communication, it is an easy-

to-use source of joy, of well-being and of positive social interaction combined with pleasant physical contact. The results show that the use is very efficient also in terms of time: often directly from the first use and its intervention needs a limited time only.

Crdl as a new means of communication creates an enjoyable connection between users. One user said: "Ça détend parce qu'on est complètement d'ailleurs. » - It relaxes because it takes you completely elsewhere.

One of the most beautiful reactions were the words of a person with Alzheimer after the Crdl experience: "Je sens la musique dans ma tête et mon coeur. Merci. - I feel the music in my head and in my heart. Thank you."

David Grupe, Grandson, Switzerland, Nov 2023.



References:

Buchholz, T.: Basale Stimulation in der Betreuung. Wegbegleiter für Menschen mit Demenz. Hannover, Germany. 2021.

TIME'S 'BEST INVENTIONS OF 2023'. CRDL AS SPECIAL MENTION. time.com/best-inventions-2023/

<https://time.com/collection/best-inventions-2023/6327166/crdl/>

ISNA Switzerland: isna.ch

www.crdl.com

Appendix: Document of Evaluation by ISNA SWITZERLAND (French or German)



Observations de l'expérience CRDL

Accompagnant(e) _____

Date : _____ 2023 Heure : _____ Durée d'utilisation CRDL ____ Min.

Combien d'utilisations CRDL avant ceci : _____

Combien de personnes participant à l'expérience CRDL (y compris l'accompagnant) _____

Lieu: Chambre / Salon / Cafétéria / Snoezelen / _____

Bénéficiaire : Prénom : _____ âge: _____ m/f

Diagnose courte : _____

Bénéficiaire parle : oui / peu / non

Peur du contact ou résistance au contact : oui / peu / non

Explication : _____

Réactions :

Réaction générale : 
 Très positive positive neutre négative très négative

Réactions (plusieurs entrées possibles, veuillez marquer):

Joie	Rire	Curiosité	Bien-être	Mimique positive	Plus de langage que d'habitude
Peur	Renfermer	Défense	_____	_____	_____

Autres : _____

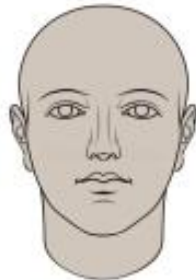
Participation de bénéficiaire :


 Très active active neutre passive pas de participation





Toucher (veuillez indiquer où touché):



Main: Intérieur Extérieur

Durée de toucher (plusieurs possibles, veuillez marquer ceux qui étaient utilisés au moins 1x):

Très courte (0-1 sec)	courte (1-3 s)	moyenne (3 - 5 s)	longue (5-10 s)	très longue (> 10 s)

Quelle durée vous avez utilisé la plus ? Marquez avec +++ la moins ? ---

Types de touchers (Plusieurs entrées et ajouts possibles) :

Pression ferme	Doux, peu de pression	Tapoter	Caresser	Massage
Toucher en rotation				

Touchers CRDL (indiquer si au moins 1x utilisé et sorti le son):

Tapoter	Tenir	Caresser	Frapper	Pétrir
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L'expérience CRDL pour moi comme accompagnant(e)?



Remarques: _____

Un immense MERCI beaucoup pour votre collaboration !



Fell free to contact: info@isna.ch