2019 Texas Symposium on DeafBlindness: Resonance
February 21-23, 2019
Communication and Connection to Emerging Language from the Perspective of DeafBlindness
Saturday, Breakout Session 8:30-10:00 AM

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Developed for
Texas DeafBlind Outreach Program
Texas School for the Blind & Visually Impaired
Communication and Connection to Emerging Language from the Perspective of DeafBlindness

Social Interaction and it’s implications for healthy human development from the perspective of DeafBlindness

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Slide 2: The Why & the How?
- Human connection and Social Interaction
- Interaction and our brain – Stress?
- How does this relate to children with DeafBlindness?

Slide 3: Close your eyes and Imagine…

Figure 1 Photo displays a teenage boy and girl sitting side by side on a hillside.

Slide 4: How do we become better listeners?

Figure 2 Photo displays a man singing and playing guitar. A child is closely tucked between him and the guitar.
What qualities do you find best describe a “good listener”? How do we apply “good listener skills when we’re with our students? 

**Slide 5: Remember:**
“It is the Interested Person that Becomes the Person of Interest…”
- Gunnar Vege

**Slide 6: Social Interaction vs Communication**

**Social Interaction:**
- Action(s) that occurs as *two or more people have an effect or influence* upon one another.

**Slide 7: Social Interactions vs Communication**

**Communication:**
- A form of interaction in which meaning is transmitted by the use of signals that are perceived and interpreted by the partner.

**Slide 8: Formal Language**

*Figure 3 Photo displays a bulletin board sectioned into three categories: where, what, and who. Each section contains tactile symbols. Below the bulletin board there is a desk containing a tactile symbol calendar system.*

- Interaction is the “Vehicle of Communication”
- Sustained harmonious interactions are indispensable in developing quality communication
- Sustained communication is essential in developing formal language.
Slide 9: Process for Communicative Development – In Abstraction

Figure 4 Photo displays a young boy looking at his hands. Close by and bending down for him to see, a woman is smiling and signing “dirty”.

- Recognition - Noticing
- “Contact” – Affirmation
- Perform functions in different modalities - Serve & Return
- Individual knowledge and history - Individualize

Slide 10: Orion and Skylar

video

Slide 11: Implication

Many of the struggles & ’behaviors’ of children who are DeafBlind may not be due to their ‘condition’, but to their early experiences in relationships.
Slide 12: How do we gather information about our world?

Figure 5 Photo displays a young child sitting on the bricked ground. She is playing with wooden blocks and surrounded by nearby pots, plants, and other toys.

Slide 13: Impact of DeafBlindness

- *DeafBlindness is a disability of access* - access to information about the environment and the social world.
  - No automatic flow of information
  - Information comes in pieces
  - Incomplete, distorted and unreliable
  - No ability to compensate

Slide 14:

Figure 6 Photo displays a man taking a selfie. He’s holding a large note that reads “If you tell the truth, you don’t have to remember anything”. The note is signed, Dominique.
Figure 7 Photo displays a teenage girl sitting in the grass surrounded by large pumpkins.

Figure 8 Pyramid shaped chart describes learning for a typical child. At the top, the smallest section is labeled direct learning. The slightly bigger section beneath, is labeled “secondary learning”. The bottom and largest section is labeled “incidental learning”.
Slide 17: Impact of DeafBlindness
Learning for DB Child

Figure 9 Upside down pyramid shaped chart describes learning for a child who is DeafBlind. At the top, the largest section is labeled “direct, hands on experiences are essential, the best way to learn”. The middle section which is significantly smaller is labeled “secondary, is difficult”. The bottom portion is very small and labeled “incidental, usually does not occur and is not effective”.

Slide 18: Science of Neglect
Center on the Developing Child video

Slide 19: How many sensory-impaired children begin life in stress & trauma?

Figure 10 Photo displays an infant (perhaps in the NICU) clothed only in a diaper, covered with wires and probes, wearing an oxygen mask. Photo reads “How many sensory-impaired children begin life in stress and trauma?”
Slide 20: How to Apply Brain Science to the Classroom/Resilience

Resiliency and Brain plasticity

• Calm
• Predictable
• Shared experiences
• Moments of joy
• Harmonious Interactions

Slide 21: How to Apply Brain Science to the Classroom/Effects of Interaction

Serve and Return!

Social interaction is characterized by turn exchanges…

A crucial and core element of turn exchanges is that the interaction partner affirms or acknowledges the initiatives of the child with DeafBlindness.

Slide 22: DeafBlind Social Interaction: Following the Gaze - Step one

Communication – are we recognizing? – Follow the Gaze

Slide 23: Social Interaction: Acknowledgement of communicative initiative – step two

I see you there… Affirmation

What’s that you say? …. Model and imitate in the child’s mode
Slide 24: We Have Got to Talk

Figure 11 Chart labeled “Narrative Activity Turns” has 3 sections. Section one and three are split into sections ¼ of the whole and section three is ½ of the whole. Section one reads “Contact opening” and has a line gradually rising at a slant. Underneath the line there are loops starting small and growing in size as the height of the line increases. Section 2 reads “Contact Maintenance” and shows the line continuing in an upward rise. The loops underneath are growing in size as the slant increases. Section 3 reads “Contact Closing” and shows the line falling with loops underneath gradually becoming smaller. The line continues past the chart with a slight upward incline and reads “Shared Affective Involvement”.

Slide 25: The Tradition of the Greeting - Daniel Johnston

Figure 12 Photo displays a painting by Daniel Johnston of a frog and reads “Hi, How Are You”.
Slide 26: Before you say goodbye

Figure 13 Photo displays a man toting a rolling suitcase smiling and waving.

Slide 27: The routine of a conversation

Hello… How ya’ doin’?

• Greeting – opening = 3 turns

Conversation

• Sequence of at least three turns – serve and return
• Breaks and repairs

See ya later!

• Closing
  o Three turns
  o May move on to another topic

Slide 28: Dr. Jan van Dijk – The Lymbic System/Moments of Joy

Figure 14 Photo display Dr. Jan van Dijk wearing a cowboy hat.
Slide 29: Video from Perkins
Limbic System

Slide 30: Nolan & Chris Talk About Their Heads
Video

Slide 31: Rupture & Repair Cycle

![Diagram of Rupture and Repair Cycle]

Figure 15 Photo displays a diagram of the Rupture and Repair Cycle. On the outside of the circle there are sections reading “Trust, Resilience, and Emotional Intimacy”. The diagram reads “healthy relationships, roughly 1/3 of our time is spent in each stage”. Arrows inside the charge flow circularly and a banner reads “Making up is more important than messing up”.

Slide 32: Implication

Many of the struggles of children who are DeafBlind may not be due to their ‘condition’, but to difficulty by others in creating repair after rupture.
Slide 33: Who’s in Charge Here Anyway?!?
Remember Serve and Return
  • Or, You talk, I listen - - - I talk you listen – B. Miles
Us adults aren’t the only people with a topic of interest
  • Or, the Child Guided Approach – Jan van Dijk
The Person who is interested becomes the person of Interest
  • Gunnar Vege
Resonance….shared emotional involvement… Moments of Joy
  • Jan van Dijk

Slide 34: Devondrick – Video Example

Slide 35: MSI Assessment and Curriculum

![Figure 16](image)

Figure 16 Photo displays the front cover of a book titled A curriculum for multi-sensory-impaired children from MSI Unit Victoria School Birmingham.

  • Social Relationships
  • Communication
  • Concept Development
  • Understanding of Time and Place
  • O&M
  • Ownership of Learning
  • Responses to Routines and Changes
Slide 36: **Communication and Congenital DeafBlindness**

By, Inger Rodbroe and Marleen Janssen

![Figure 17](image)

Figure 17 Photo of a set of books: Communication and congenital deafblindness: congenital deafblindness and the core principles of intervention by Inger Rodbroe and Marleen Janssen.

https://www.amazon.com/Communication-Congenital-Deafblindness-Inger-Rodbroe/dp/0999263714/ref=sr_1_1?ie=UTF8&qid=1548974924&sr=8-1&keywords=communication+and+congenital+deafblindness

Slide 37: **Remarkable Conversations: A guide to developing meaningful communication with children and young adults who are deafblind**

![Figure 18](image)

Figure 18 Photo displays the front cover of a book titled *Remarkable Conversations, a guide to developing meaningful communication with children and young adults who are deafblind*, Barbara Miles and Marianne Riggio, Perkins School for the Blind.

https://www.amazon.com/Remarkable-Conversations-developing-meaningful-communication/dp/0965717011
Slide 38: Resources
Harvard Center on the Developing Child
www.developingchild.harvard.edu/
The Power of Play: A Pediatric Role in Enhancing Development in Young Children- American Academy of Pediatrics
http://pediatrics.aappublications.org/content/142/3/e20182058MSI
Curriculum
www.sense.org.uk/get-support/information-and-advice/support-for-children/msi-curriculum/
Communication Matrix:
www.communicationmatrix.org/

Slide 39: Resources con’t
Chris Ulmer:
www.specialbooksbyspecialkids.org/
Dr. Jan van Dijk, The Role of the Emotional Brain, a.k.a. Moments of Joy:
www.perkinselearning.org/videos/webcast/role-emotional-brain

Slide 40: From Communication and Connection Comes Language
Social Interaction and it’s implications for healthy human development from the perspective of DeafBlindness
Texas Symposium on DeafBlindness 2019
Model-based support to improve the quality of interaction

Bernadette van den Tillaart
5th Dbl European Conference on Deafblindness, 2001, Noordwijkerhout, the Netherlands bernadettevandentillaart@tiscalimail.nl

Introduction
The meaning of being human is based on social contact, the togetherness with others. We want to be on ease and have just enough challenge. The way that these needs are filled can be significant for every person in different ways. But, it is always based on living-up together, embedded in reciprocal interaction, communication and autonomy.

Reciprocal interaction means that both partners in the exchange get a turn; that they talk about the same and do not (keep) misunderstand(ing) each other; and, that they share each other's' experiences and feelings. These exchanges of interaction moments follow specific interaction patterns. They are the same for every human being. It can look different because of the cultural influences. The deafblind person lives in 'a world of proximity and touch' (Van Dijk, 1999). This makes it difficult for the interaction partner to recognize the interaction regulation and communicative expressions of the deafblind person. The individual signals are mostly very small and fleeting, and often interpretations are not correct. To improve the quality of interaction with a deafblind person, he has to be viewed an individual persons with his own specific interaction characteristics.

The creation of a social environment which is characterized by qualified interaction with the deafblind person: the interaction program.
It is not easy for interaction partners (parents of (new) staff) to reach reciprocity with deafblind persons. The problem mostly is neither set in the child, and is nor in the educator. But there is a mismatch between the spontaneous behavior of the child and the expectations of the educator (Daelman, Nafstad, Rodbroe, Souriau, and Visser, 1996).
The creation of a social environment that is characterized by reciprocal interaction asks for training and guidance of the interaction partners, especially for new staff and for those persons who are in contact with deafblind person with severe contact and/ or behavioral problems. It appears that a basic course about social interaction with deafblind persons has the best effect when, at the same time, the participant is practically coached at the work spot or in the home situation (van den Tillaart, 1999). From the personal portfolio of the deafblind person, questions can arise about interaction between the communication partners and the deafblind person. When they need help, they can ask for support. This support can be carried out by a deafblind specific interaction and communication coach. The Guidance Protocol guarantees the central position of the deafblind person.

In the Interaction Program (developed by van den Tillaart in 1999-2001 during her study to become a trainer of deafblind specific interaction coaches), the training courses and the guidance protocol are complementary to each other, and they built upon the Interaction Model (van den Tillaart, 1999) as a conceptual framework.

**Guidance Protocol**

1. Pick up signals about an interaction-communication question
2. Clarify the question and introduce the guidance strategy
3. Diagnostic interaction analysis of the individual interaction characteristics of the deafblind person and of the interaction partner(s).
4. Guidance process with the interaction partners by video-analysis, modeling and coaching on the job.
5. Evaluation
In the presentation the participants get the chance to 'sniff' at the way we use this guidance protocol. The guidance protocol will be worked out practically with the participants. As if they were the interaction partners of the deafblind person which will be seen at the video tape. Video-analysis is a very central working model. Each analysis requires mostly not more than 10 minutes tape. The instructions how to make an effective shooting and the analysis-technique will not be discussed here. But in the presentation the participants will experience this. And of course, this will be an aspect of the basic course and the coach training on interaction, which is offered at our deafblind department.

The person who coaches the communication partners is trained as 'a deafblind specific interaction and communication coach'. The trainer offers a combination of

- **Video Interaction Guidance.** The VIG is a certified training in The Netherlands (and now also in some places in the USA), based at the work of Dekker and Biemans (1994). At first, Dekker and Biemans started with Video Home Training, which has also some social work aspects in it. The theoretical framework is mainly derived from Trevarthen, Sameroff, Stern, Riksen-Walraven and IJzendoorn.

- **Deafblind specific knowledge and practical experience.** The specialized trainer attunes the VIG to the population he is working with. As well to the content as to the organization around the deafblind person.

The organizational structure of the training and guidance looks as followed:
The courses and the Guidance Protocol are contently based at the Interaction Model.

The Interaction Model as a resource to encourage the deafblind person and his communication partner to attune their behavior to each other, to allow reciprocity to emerge.

Reciprocal interaction is as important as it leads to feelings of social competence and well being. When there is no safe base, the deafblind person will show symptoms of stress.

Stress interferes with and undermines the ability to cope adequately with the social environment and learning (Van Dijk, 1999). In deafblind people, the ability to interact in a reciprocal way might not be well developed, because the impairments of sight and hearing, this state of reciprocity is harder to reach. For it happen, it requires insight into the way the deafblind person experiences his world; subtle understanding of patterns of interaction and influence of deafblindness on that process; and, the ability to read and consciously use (tactile) body language (van den Tillaart, 2000). Therefore, communication partners of the deafblind person have to 'live up' in daily activities with the deafblind persons. Barbara Miles (1999) stresses the importance of the use of hands, and how crucial it is for communication partners of people who are deafblind to become especially sensitive to hands.

Van den Tillaart based the development of the Interaction Model on the long term experiences in The Netherlands in developing and refining the

Figure 19 Upside-down pyramid is divided into thirds: bottom third is "Trainer", middle third is "Interaction and Communication Coaches" and upper third is "Interaction Partners").
conversational method for the deafblind population (van den Tillaart, Janssen en Visser, 1999; van Dijk, 1986), the theory of sensitive responsiveness of Riksen-Walraven (1984), the results of the European Working Group on Communication (Daelman, Nafstad, Rodbroe, Souraue and Visser, 1997 and 1999), and the Video Interaction Guidance (Dekker and Biemans, 1994).

To provide understanding of the way the interaction episode goes by between a specific deafblind person and his specific communication partner, we need to make a video-tape. Otherwise we miss a lot of the body gestures (including sounds), and they follow too quickly after each other to give it the most plausible interpretation. Using video-analysis, people always get astonished by the things they become aware of that they did not know, even when the relation exists for a long time. With the help of the interaction model, it becomes clear which the strengths are, and which are the learning moments for each of at that moment that interfere with creating reciprocity in the interaction episode. Working in this way requires respect from the interaction partner and the deafblind person for the characteristic interaction style of each other.

The Interaction Model:

- Vision
- Interaction Episode
- Prerequisites
- Personal Portfolio

In 'Interaction Episode' I will briefly stress some points of interest. These points refer to the most common learning moments that appeared during the guidance of interaction partners of deafblind persons.

**Vision**

The interaction partner has the intention to come into contact.

It happens that people have experienced so many failures in getting into contact with the deafblind person that they do not feel competent and do not aim for reciprocal contact anymore. Together with the deafblind person he is going through the activities in a structuring and caring way.
This lack of reciprocity leads to an empty contact of no sharing, and improves the chance of misunderstanding and frustration/stress. Becoming aware how and what the deafblind person tries to communicate can give a start to a new intention to come into contact with the deafblind person again.

- The interaction partner departs from the way the deafblind person experiences his world and from his interests. His initiatives will be more attuned, understandable and interesting, and therefore give more chance to have real contact.

- The interaction partner shows respect for and joins in with the initiatives of the deafblind person. When the deafblind person experiences that his initiatives are received and have effect (regardless of it being a positive answer or not), than he will become an active interaction partner.

**The interaction episode**

The course of the interaction episode.

![Figure 20 Image showing the course of an interaction episode.](image)

(Van den Tillaart, 1999)

In the interaction episode, the deafblind person and the interaction-partner go through the cycles of the interaction process together. They need to have a sensitive responsive attitude (Riksen-Walraven, 1984). This means that they show perception, a correct interpretation and an effective reaction, in this order.
Looking at the action of the person who has the turn, it is important that first **all perceiving aspects/ modalities of the expression becomes analyzed, before the most plausible interpretation is chosen.** This interpretation is the basis for the own reaction in the next turn.

Experience over years of coaching has taught me that some interactions partners tend to conclude directly their interpretation from those expressions that they are used to perceive in contact with hearing and seeing persons. It means that they are not that much aware of the body expressions, because they are more directed to the use of the communication forms and language. They also are not used to be aware of the tactile modality. And when, by analyzing and coaching, they become aware of all the kind of expressions in different modalities that are to perceive, and look at it from the point of view of the deafblind person, and then it becomes easier for the partner to understand how the expressions can be interpreted. Based on a correct interpretation, a reaction can be chosen that is attuned to the previous expression of the other partner. On partner has a turn, and at the same time, the other person perceives and interprets this. Therefore, in the interaction process, both partners are active.
Figure 21 Diagram showing "Contact Opening" and includes information about the first turn, second turn, and third turn components. First turn: 1) Co-Regulation of Attention and Proximity, 2) (evt.) a New Initiative, 3) Turn gift. Second turn: 1) Turn take, 2) Affirmation of the Reception of the initiative, 3) (Evt.) Answer, 4) (Evt.) a New Initiative, 5) Turn gift. Third turn: 1) Turn take, 2) Affirmation of the Reception of the initiative, 3) (Evt.) Answer, 4) (Evt.) A New Initiative, 5) Turn gift.
Points of interest:

First turn:

1. Co-regulation of attention and proximity

   With interaction partners as well as with deafblind persons who wants to open the contact, it can be seen that they do not regulate the attention and proximity first, but just a start communicating, taking for granted that the other person perceives it. Then, this aspect becomes a learning moment in the guidance process.

   The deafblind person will only perceive with the available senses. So when the initiative taker is a hearing-seeing person, he has to act into those available modalities. Because the distance senses are not well or not available, it is important that the attention of the deafblind person is directed by the tactile senses at first at a distance from his body, like stamping, knocking, blowing, etc. Because otherwise the sudden touch at his body can shock him so much that the contact is broken before it has really started. When there is some sight and hearing, one should be sure to attune to the way the world is perceived visually and auditory.

   To get the attention, the initiative taker can join in with the activity of the deafblind person. He attunes to an activity that the deafblind person is interested in, understands and can recognize. An easy way to join in is imitating the deafblind person, exactly or by another modality.

   The regulation of the deafblind person to open the contact is not always easy to recognize. The gestures can be too small, especially at a distance. Some deafblind persons develop challenging behavior, because they have learned that it has more effect in coming into contact. In the video-analysis it occurs often that after the undesired behavior the deafblind person waits for a reaction. So, in that case, it is important not at first to interpret that the child is naughty or evoking, but that he just asks for contact and maybe help.
2. (evt.) a new initiative

When the deafblind person and its interaction partner know each other for a long time and understand each other expressions well, than a new initiative can be taken directly after the regulation. But when the situation is different, than it seems better that after the regulation the interaction partner does not take a new initiative but gives the turn to the deafblind person. Because then he can understand from the reaction of the deafblind person if the regulating had succeeded. If the deafblind person has not directed yet his attention to him or turns away, there is another chance to attune again and to vary the regulation. Sometimes it takes more turns before they have co-regulated the attention and proximity.

Taking a new initiative, the interaction partner has to be aware of the orientation reflex and the habituation of the initiatives of the deafblind person. This will be expressed by regulation of the processing time and the intensity. The interaction partner has the task to prevent over stimulation.

3. Turn gift

Giving the turn can be done by waiting (stop acting), by holding the hands available, by moving back the face a little, etc.

**Second Turn:**

1. Turn Take

The person who is given the turn has to look if there is attention for his reaction, and otherwise he has to wait for it.

2. Confirmation/ Affirmation of the reception of the initiative

In typical development parents react to their children till the age of 2 years old with an explicit confirmation of what they heard or saw their child doing. When the child says "Ah-Ah!" and points to the window, mother mostly will react first with "ah-ah, daddy!" She imitates the child, and names what he wants to say. She is just giving her child the affirmation that she has heard and understood him. Because of the reaction of the child (in the third turn), she
knows if she understood him. When she would have misunderstood him and had not given him a confirmation but directly had given him an answer ("No, we are not yet going to the marry-go-round"), then the child feels himself frustrated that his mother misunderstood him. After the age of 2 years old, parents confirm mostly their children implicit in the answer. People are often not aware of the patterns that they use during the whole day. There are pitfalls in the contact with deafblind persons. First, a part of the population has a chronological age older than 4, but functional interaction age below 2 years of typical development. Secondly, because of the missing or impaired senses, misunderstandings appear easily. In the coaching, for almost every interaction partner it is a learning moment to give an explicit affirmation that the initiative of the deafblind person is received.

When the interaction partner is not sure about the interpretation, it can be a good idea to affirm first, and than give the turn back. He lets the deafblind person know that he perceived his initiative and maybe the deafblind person feels the need to become more clearly. Experiences from interaction analyses have learned that jumping over directly to the answer is a big risk to frustration and stress. It can lead to a break of the contact, inactivity, a lack of feeling of social competence, and/ or severe self-abusing or aggressive behavior. Every time the interaction partner has to check if they talk about the same, and give the deafblind person the confirmation that they do so. This is the basis for sharing experiences and feelings. Mostly the deafblind person confirms the perceiving of the actions of the interaction partner. But if not, the interaction partner gives the deafblind person the chance to develop this interaction pattern by being a model for him.

3. (evt.-possibly) an Answer

The answer can be positive or negative for the other person. It can be an answer to the content of the initiative, the subject of the conversation. It can also be an answer to regulate the ongoing of the interaction process. "No, I don not want you to come that close so quickly", "Yes, I get I interested in contact with you". Mostly this
can be seen in bodily expressions about turning towards/ turning away.

A negative answer of the interaction partner concerning the content can give stress. The interaction partner can help the deafblind person to overcome his disappointment. Yet, the feeling of not being understood because of the lack of confirmation gives much more and deeper stress feelings.

4. (evt.-possibly) a New Initiative

Something new is brought up, something that was not yet 'talked about', and maybe not expected. With congenital deafblind person, something new can give an orientation reflex. This asks for extra processing time. The regulation of this processing time looks different for every individual deafblind person. But when you have seen these expressions in a lot of deafblind persons, it becomes easy to recognize. The individual characteristic expressions of regulation of processing-time is one of the most important things to be informed about and to recognize when people come into contact with this particular deafblind person. This long processing time lowers the tempo of the turn changing. When the expressions are recognized, the interaction partner expects and trusts that when he waits, the deafblind person will give attention to him again. It needs to be formulated and video-illustrated in the personal portfolio. When it is interpreted wrong, like 'he is not interested', or 'he dislikes this activity', or 'he did not understand it', than the interaction partner will confirm these interpretations, or he will bring in a new initiative. This disturbs the processing time and confuses the deafblind person. And when this confusing reaction is not well interpreted, the reaction will not be attuned again. Experience learns that awareness of these individual characteristic regulation expressions brings down the number of frustration moments and broken contact episodes.
Third turn:

1. Turn take

The interaction partner has the task to **wait for the turn to be given**. There are moments in which the initiative taker is tempted to take over the turn, because otherwise it feels like nothing happens. He can wait easier if he can distinguish the interpretations of the different regulation expressions, including 'expressions of processing time' and 'turn giving expressions'. When the deafblind person does not wait for his turn, but just breaks through the turn of the interaction partner, different interpretations can be taken. The deafblind person is not aware yet of the turn-taking pattern, he could not perceive what the other person was doing or did not understand it, or he felt the strong need to stop the other person (maybe to keep him from over stimulation).

**Contact Maintenance**

![Diagram of Contact-Maintenance](image)

**Figure 22 Diagram of Contact-Maintenance.** Includes Turn exchanges, Giving and taking leadership, Sharing of affective involvement, Naming - meaning negotiation.

**Turn exchanges**
Turn 2 and 3 of the contact-opening continue. It happens that turns are broken up, but with co-regulation of both partners the turn-taking can be restored in a way the interaction episode is not broken down.

**Giving and taking leadership.**

Two interaction partners regulate each other behavior in a way that together they create a successful interaction episode. (Nafstad and Rodbroe, 1999). There are ten regulation aspects considered in the model. One regulation aspect deserves extra attention. The regulation of intensity. The intensity increases when the deafblind person feels that he can not regulate well the other regulation aspects. Especially if he does not get enough time to process the information. Hardly ever an explosion of frustration and stress comes out of the blue. Most times little signals have proceeded. When these little signals have been recognized early, than by regulation of the tempo, the impressions etc. the intensity can be lowered.

In an educational situation, the educator and the deafblind person negotiate in giving and taking leadership. In a way as it is meant by co-regulation. Sometimes the educator has to be the leader in the case of challenging behavior. Then the educator can confirm which intentions she has perceived, maybe give the answer that she does not want this particular behavior, and, when needed, tell/gesture or show which behavior is desired in that situation. Maybe he needs to help by doing the appropriate behavior together (Dekker and Biemans, 1994). In cases of severe long term problem behavior, additional strategies can be chosen and evaluated.

**Sharing of affective involvement**

In the turn of the interaction partner, the emotional content of the expressions can become clear to the deafblind person, even if he does not yet understand the meaning of the sign or word. The expressions are embedded in an emotional curve, a narrative (Trevarthen, 1993; Nafstad and Rodbroe, 1999). From starting the expression, to a strong emotional experience of the expression,
and then ending the expression. The meaning of the content of the expression becomes clear from the emotional content. This can be seen when the interaction partner dramatizes the content of the conversation.

The same concerns an interaction episode. The episode starts at a friendly basic emotional level. When the interaction turns exchange fluently and both partners can take initiatives, when they share experiences and feel themselves understood, when they express the emotions (in a perceptible modality), than arises a flow. The tempo gets higher, the intensity gets higher and there is more proximity. Both partners feel

competent in the co-regulation of this interaction episode and they enjoy it! The emotions that come up mirror at the face, the body, in the sounds, and in the muscle tension. When the interaction partner confirms these by imitating, and show his own emotions, which

are also affirmed back, then they both share emotional involvement. This feels like a climax. And it is a climax that is build up from the beginning of the interaction episode. Because it is not possible to keep up this strong emotional experience, the tension decreases, back to the starting level. This narrative form of the interaction episode is more precious than the fulfilling of all kind of wishes. It gives the motivation to repeat this again with this person. With this kind of interaction episodes a more secure relationship can be built up.

Naming - Meaning negotiation

When a deafblind person makes a gesture or a sound, the interaction partner confirms this by imitating and shows him his interpretation. (He can recognize and give a correct interpretation to this gesture, if they have shared a lot of times the experience where the gesture refers to). At the reaction of the deafblind person he can understand if he interpreted it well. Or not, and then he tries again by showing another interpretation. In this way they co-create a negotiation of meaning (Nafstad and Rodbroe, 1999). When the deafblind person and the interaction partner share the
experience, then the interaction partner can add/ offer a 'name' (a spoken word, sign, object of reference, drawing, etc.)

Naming emotions seems so abstract at first for many people. But it becomes very concrete when the gesture or sound is a part of the emotional experience, and the emotional meaning is negotiated in the situation.

**Contact Closing**

![Diagram of contact closing](image)

**Figure 23 Diagram of contact closing.**

The climax cannot stay for long. The intensity decreases, the tempo goes slower, the initiatives decrease, and the interaction partners create more distance. It takes not that much turns before the interaction episode is closed. Both interaction partners are not on turn anymore. This does not mean that the contact is finished and that both partners go their own way. It is possible of course. But mostly the contact is still open; they are still available for each other. Both can think about and process what happened. And then the contact continues, because one of the interaction partners takes the initiative and a new interaction episode has the chance to start again.

**Prerequisites**

Of course the chance for a reciprocal interaction episode to happen increases when the context is attuned to the possibilities and needs
of the deafblind person. Like not-disturbing stimuli, appropriate communication forms, etc.

- **Personal Portfolio**

The understanding that is the result during or at the end of the guidance process is taken into the personal portfolio of the deafblind person.

  - The individual interaction characteristics. New interaction partners who get this information have less risk to experience problems in the contact.
  - Strengths
  - Learning moments/ weaknesses

The interaction partners who are coached know their own strengths and learning moments, and it is their challenge in their work/home situation to develop in this. All the three aspects should be described by text and illustrated by minutes of video-tape, to become effective in daily work.

**Personality Development**

Reciprocal interaction with other people is a human need. Not the communication about things, but about the shared emotional experience of the event makes that the deafblind person grows to a self and an individual personality.

**Literature**


Nafstad, A. and Rodbroe, I. (1999). Co-creating communication. Perspectives on diagnostic education for individuals who are congenitally deafblind and individuals whose impairments may have similar effects. Forlaget Nord-Press, Dronninglund.


The role of a partner
in communication episodes with a deafblind person

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Rødbroe and Souriau (2000) argue that deafblind children need ongoing intervention from communication partners if they are to develop communication competencies. This intervention should be based on the natural way all children learn to communicate and drawing on Vygotsky, they state that the partner's role is to discover and then support new emerging competencies, but never to train competencies that are not ready to emerge. Vygotsky also overshadows the notion of 'co-creative communication' (Naftad and Rødbroe, 1999) but they draw also on the concept of 'scaffolding' to describe the role of the partner and this then begins to suggest that the communication partner is the more competent.

This review explores the importance of viewing the development of deafblind children from a social constructivist perspective, but aims also to explore what this might suggest for relationships that exist between deafblind people and their communication partners. Vygotsky (1999) described the Zone of Proximal Development as the distance between the actual and potential developmental levels of children. This gap is bridged with the help of more competent others. Brownell and Carriger (1998) also suggest that social relationships are the contexts in which knowledge is formed. This is echoed by Meadows (1999) who considers cognitive abilities not to be 'internal and individualistic' but built up in interactions with the environment. All of this is relevant for deafblind children, particularly if we recall Macmurray's view that "the unit of
personal existence is not the individual but two persons in personal relation". (Faulkner and Woodhead (1999)).

However, when we begin to consider Vygotsky's view that instruction from more competent others is a central feature of the learning process within the ZPD, a number of challenges are raised in relation to how deafblind people learn to communicate. Wood (1988) suggests learning is 'scaffolded'; Rogoff et al (1998) offer the term 'guided participation'; Tharp and Gallimore (1998) describe 'assisted performance' and Mercer (1995) highlights ways in which children might be guided to 'construct knowledge'. In whatever way this learning process is described, there is an underlying assumption that the more competent other has an end-goal in mind.

Tharp and Gallimore's suggestion that 'guided re-invention' connotes both social learning and cognitive constructivist arguments, together with their additional suggestion that children do not invent language for themselves (Faulkner and Woodhead (1999), set the boundaries of this challenge facing deafblind people in their journey towards language. All naturally occurring languages have hearing or vision as their principal means of transfer and Vonen and Nafstad (1999) write that a natural tactile language has never developed anywhere in the world. So if deafblind children cannot construct a language for themselves and they cannot simply learn the language of the dominant culture around them, what kind of learning should be taking place and what does this say about the teaching processes involved?

Rogoff et al (1998) raise concerns that by being too heavily focussed on literacy and language skills suited to formal education settings, 'scaffolding' suggests a specific path that has to be followed. It must surely be open to even more criticism when we consider the barriers that exist for a deafblind person trying to access language. So perhaps an asymmetrical relationship that guides a deafblind person towards the language used by the communication partner is not the best model for the development of communication skills? Symmetrical relationships for deafblind people would appear to suggest a number of insurmountable barriers, so can the literature point us towards the kind of double-sided ZPD described by Brown (DbI Seminar, 2001), where in any interaction there is a ZPD for the deafblind person and a parallel ZPD for the
communication partner? Perhaps the seeing-hearing person has just as much to learn from and about the deafblind person as the other way around.

Brownell and Carriger (1998) ask what kinds of cognitive conflict might be engendered in the expert who scaffolds the learning for a novice. However, whilst they consider that learning is taking place for both participants, they still see an asymmetrical relationship. Wood (1998) would also give precedence to the teacher's role, even though he suggests that teaching 'provides opportunities for the acquisition of knowledge'. Moll and Whitmore (1998) suggest a 'collective ZPD' where there is an interdependence of adults and children suggesting that the 'sociocultural system' is mutually created by teachers and learners, Tharp and Gallimore (1998) characterise the ZPD as a series of growing edges which are an expression of the child's activities and social relationships. (Faulkner and Woodhead (1999). So perhaps in establishing communication, we can see the possibility of blurring the distinction between the roles played by deafblind people and their communication partners.

But what is communication? Here it will be defined simply as partners trying to develop shared understanding. Göncü (1998) would describe this as intersubjectivity, 'the adoption of a shared focus of attention and agreement on the nature of communication'. Rødbroe and Souriau (2000) explore Trevarthen and Hubley's distinction between 'primary' and 'secondary' intersubjectivity, highlighting that at the primary stage, the emotions shared, the topic addressed and the utterances that are used all emerge from the 'togetherness between the two partners'. If, as Göncü (1998) suggests, intersubjectivity is achieved 'through recognition and coordination of intentions' then this does not immediately imply a move towards the language used by the communication partner. Indeed, how could the deafblind child agree to such a language if it is largely inaccessible? Instead, it leaves open possibilities of negotiating shared meanings and co-creating shared languages. Nadel and Camaioni (1993) have suggested that a communicative episode is 'an on-line process of adaptation to each other within which intentions and emotions are shared and negotiated'.

Göncü (1998) highlights the importance of 'prolepsis' in the achievement of intersubjectivity, where both participants make an effort to understand each other and the speaker presupposes that the listener has prior knowledge not yet introduced to the conversation. He describes the latter as 'based on faith in a mutually shared world'.

Rogoff et al (1998) describe communication principles where the speaker should be sensitive to the perspective and knowledge of the listener and this is a theme taken up also by Stone (1998), who considers mutual trust as an essential element in the process of achieving intersubjectivity. Stone suggests further links between prolepsis and Rogoff et al's notion of guided participation (1998), arguing that adults and children need to find a common ground, allowing bridging between the known and the new to take place. Stone then argues for 'a fluid interpersonal process in which the participant's communicative exchanges serve to build a continually evolving mutual perspective on how to achieve the situation at hand'. This suggests a degree of symmetry in relationships far removed from Vygotsky's notion of the more competent other.

Symmetrical relationships are a core feature of co-creative communication (Nafstad and Rødbroe, 1999) and Nafstad (2000) suggests one role for partners is to recognise the deafblind person simply as an extraordinary version of ourselves. This leads to equality within the relationship. Rogoff et al's suggestion of 'mutual adjustments in communication' that lead to bridging (1998), Tharp and Gallimore's 'continual adjustments' in direct response to the learner (1998) and Brownell and Carriger's consideration of ways in which learners jointly structure activities (1998), all point towards a recognition of important and equal roles played by both participants in a dyadic exchange. Schaffer (1996) too considers the active role that is taken by both participants in episodes of joint involvement. And although Moll and Whitmore (1998) recognise that emphasis is usually placed on the transmission of skills from adult to child, they suggest that a more transactional view of the ZPD is possible, "one that focuses on the construction of meaning" and after all "seeking shared meaning is in the nature of human communication". (Rogoff et al, 1998).
Meadows (1999) argues for 'obvious variation' between individuals in their cognitive development, similar to arguments expressed by Wertsch and Tulviste (1998), who consider it "more appropriate to characterise the mental functioning of individuals in terms of 'heterogeneity'". Just as many writers highlight the developmental variations that occur across different cultures (Schaffer, 1996; Cole, 1998), then similarly we ought to consider differences that surely occur in ways in which people with dual sensory impairment learn to communicate. We should rise to the challenge of trying to 'capture the facts' about the developmental differences between seeing-hearing people and deafblind people, without 'falling prey to assumptions' that the language of the dominant culture is superior. (Wertsch and Tulviste, 1998).

With a backdrop that "culture is a medium not an independent variable" (Cole, 1998), Visser's comments (1999) about the 'old times' approach to language teaching with deafblind children might suggest that previously teachers viewed any sensory impairments as an 'independent variable' rather than an integral part of the child. However, it seems clear that a child's lack of hearing and sight can never be anything other than a medium through which all information passes. We should not view deafblindness, however, as a negative state of being in which sight and hearing are not there but instead as a positive state in which touch is the pre-eminent source of information. This immediately suggests ways in which communication should be channelled. If people bring who they already are to relationships they participate in (Stone, 1998; Brownell and Carriger, 1998), the odds will be unfairly stacked against the deafblind person if the communication partner is unwilling to see them as a co-contributor of communicative acts within that relationship. Brownell and Carriger (1998) wrote that what children take away from collaborations will differ as a function of what they brought to them. This could equally allow us to ask what a communication partner should bring to a relationship with a deafblind person if it is to result in a successful encounter that leads to shared understanding between the two participants.

Moll and Whitmore (1998) describe ways in which a teacher is able to 'participate' in a class, where guidance is embedded in activities and this seems reminiscent of Rødbroe and Souriau's advice that a partner
should create a 'natural context' for communication development. (2000) Moll and Whitmore (1998) suggest a teacher should allow and promote power to be shared between herself and the learners. Trusting the learner is a central theme in this stance. It similarly lies at the root of Rødbro and Souriau's suggestion that the partner should be sensitive to the contributions of the deafblind person, willing to both lead and be led. Similarly, Hoogsteder et al (1998) advise that in any analysis of learning the focus should not be unidirectional. Joint regulation of an activity is a central feature and they offer three distinct modes of categorising the role distribution within interactions:

- **playful** - in which there is an equality of opportunities
- **efficient and economic** - where the adult controls and dominates the child
- **didactic** - which is in part asymmetrical as the adults monitors the actions of the child, but in part symmetrical because adult and child attempt to reach a common understanding.

Rødbro and Souriau (2000) consider 'the natural way of learning is to play' so they emphasise the playful mode and indeed are critical of the field of deafblind education for its previous insistence on viewing communication as simply a message system. They might see this as the 'efficient and economic' mode where the adult attempts to impose language on a child, without necessarily being interested in the creation of 'sustained and joyful communicative episodes', which after all may be a child's initial goal. (Tharp and Gallimore, 1998). Rødbro and Souriau (2000) advise that the responsibility for sustaining these episodes fundamentally rests with the communication partner.

Since both participants 'have to construct their goals on the spot' and these goals 'emerge out of the dyad's interaction itself' (Hoogsteder et al, 1998) it seems clear that by sustaining the interaction there will be increased possibilities for achieving emotional attunement, negotiating shared meanings and developing joint attention. There is no pre-defined way of doing this (Hoogsteder et al, 1998) and 'it will never be possible to create a program indicating when and what to do in communicative
events'. (Rødbroe and Souriau, 2000) A number of ways are suggested by which partners may expand upon utterances made by a deafblind person, in this way encouraging a continuation of communicative episodes. Best (2000) suggests that a competent partner will be 'able to 'read' the child and behave in a way similar enough for the child to experience connection - a self-other contingency'. This is reminiscent of Bruner's suggestion that a teacher should be 'leading by following'. (Wood, 1998) The competent communication partner's role then is not to guide the deafblind person to a given destination, but instead to follow the deafblind person's lead and in doing so co-create a new, negotiated way of communication.

Whilst asymmetrical relationships were the starting point for this literature review, there is a sense that symmetry may provide a more fruitful basis for co-creation communication. Nevertheless, there is a distinct role that the communication partner has to play but gaps in our current knowledge about exactly how the ZPD might apply to deafblind people leaves some unanswered questions about the exact nature of that role. Intriguing questions are posed about ways in which young, minimally verbal children may be able to recognise social and communicative clues to establish and repair shared reference and negotiate meanings. (Brownell and Carriger, 1998). There are also calls for further research into ways in which toddlers use non-verbal metacommunicative messages to develop shared pretend play language. (Göncü). Finally, Rogoff et al suggest that 'infants who are in almost constant skin-to-skin contact with their mothers may manage effective communication through tactile contact in squirming and postural changes'. (1998) Perhaps, deafblind people are already skilled in recognising and using subtle tactile communication strategies and Brown's notion of a two-fold ZPD (DbI Seminar, 2001) may suggest that these are the skills which a communication partner needs to develop. Perhaps, symmetry will be achieved if the communication partner was to learn to perceive the world from a deafblind perspective, described by Nafstad and Rødbroe as an 'absolute subjection of oneself to the deafblind child's needs'. (1999)
Reference List


This project is supported by the U.S. Department of Education, Office of Special Education Programs (OSEP). Opinions expressed herein are those of the authors and do not necessarily represent the position of the U.S. Department of Education.