KØBENHAVNS PROFESSIONS HØJSKOLE

Theories that underpin the principles and strategies of the Talking Mats tool

Ida Marie Mundt
Associate Professor, Master in Special Needs Education
+45 29671220, im@kp.dk,
University College Copenhagen
Thanks to Joan Murphy, Margo Mackay and Norman Alm for feedback og valuable comments,

1.0 Background of this paper

I have worked with Talking Mats as a practitioner, as an accredited course instructor, and as an associate professor in the special needs area – using it as an interviewing and researching tool. I have been impressed by, and amazed at how effective this tool - or should we rather call it a conversation framework - is to create some of the best dialogues I have had with all kinds of people: children and adults, both in the special needs area and in the area of social work. Dialogues that come close to the basic idea of communication: building relationships, investigating each other's perspectives and generally getting wiser – about yourself and about the other person.

There have been several projects and tests over the years that have demonstrated the qualities of this tool. There is solid evidence that, on the one hand, it gives people the opportunity to speak and be heard, and on the other, gives them a chance to reflect on their own life, opportunities and challenges.

As a lecturer at a university college, it is important for me not only to present a well-functioning tool with its principles and values. I need to make certain that my students, and those who use the tool, also have a background understanding of why the individual values are important, and why it is essential to adhere to the framework of the tool.

If you use a tool and are aware of the above, you will be able to adjust your use of the tool to a much greater extent. You will not forget a principle when you know not just the principle, but also the background for this precise way of thinking. In this way, you can transfer good habits that can be used in other conversations, relationships and learning situations. You have not just learned a tool, but have gained the opportunity to develop your skills in conversation, communication and special education.

The values of Talking Mats are not just linked to the ideal. Like any other set of values, they represent a practice. And this practice works for one or more reasons.

In this paper I have tried to gather together all the background theories I have come across in my work with Talking Mats. I will try to explain them just a little, well knowing that in doing so I may be blamed for reductionism. I have therefore added references to the chapters, so readers will be able to find further information about the theory in question.

When working with people in the special needs area, or just with people in vulnerable or exposed positions, or in a decision-making situation, we all have an obligation to find out how we can help the other person to achieve a better quality of life (however that may be defined) and to get their voice heard.

Talking Mats works as a communication and interviewing tool for a wide range of people of all ages with disabilities of various types and levels – and for ordinary teenagers as well.

With respect to rights (Lundy 2007), everyone has the right to be heard – children, disabled people, people in any kind of custody – also when their voices are augmented, their language non-standard and their experience of being heard negative. For this reason, it will be interesting to take a closer look at the theories and tools that can support these issues, and to give caregivers, professionals and relatives a frame for asking, as well as some guidelines and some background to help them understand what makes this specific frame workable.

In discussions about evidence, best practice and concepts, we will always have to define the activity we are performing when using a tool like Talking Mats. Is it evidence-based, double-

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

blinded, possible to replicate and scale? Is it known to work, but do we know which ingredients actually make this such a valuable tool? Talking Mats has a lot of good results and is being used far and wide in several countries and is well known as an effective tool for people to get their voice heard. A lot of research underpins the effects, as you can see by following the links to these references.

https://www.talkingmats.com/peoples-research/
https://www.talkingmats.com/projects/

I have chosen another way to investigate this tool. I have looked at the individual elements in Talking Mats, and tried to explain or underpin them with accepted theories in the fields of psychology, neuropsychology, communication, developmental psychology, relational competence, sensory theories, speech and language theories, compensational strategies, learning theory, etc.

This paper is a result of these findings.

Lundy, L. (2007). "'Voice' is not enough: conceptualising Article 12 of the United Nations Convention on the Rights of the Child." British Educational Research Journal **33**(6): 927-942.

2.0 Short description from Talking Mats' homepage

Talking Mats is an evidence-based interactive picture communication tool. The mat provides a space for the conversation – a place to put thoughts down.

There are three sets of picture communication symbols – topics (whatever you want to talk about), options (relating specifically to the topic), and a visual scale (to allow participants to indicate their feelings about each option).

The communicating participants are called the listener and the thinker. The listener provides the frames in communication, prepares relevant topics and the way of asking. And then she listens, helping the thinker consider answers and thoughts by investigative and supportive questions. The listener's main job is to investigate the thinker's views and opinions, and to support the thinker's attempts to think and reflect, and to find answers.

Once the topic is identified, the participant (the thinker) is given the options one at a time and asked to think about what they feel about each one. They can then point or place the symbol under the appropriate visual scale symbol to indicate what they feel. Training the listener is key to ensuring that proven principles are adhered to, such as using open questions, being non-judgemental and reviewing the mat.

The aim of this paper is not to provide the training, or the guidelines for Talking Mats. For further information about this, please contact Talking Mats Ltd:
https://www.talkingmats.com/

In the following, I will use both the term *interviewer* or *listener* for the same role, and the term *informant* or *thinker*, where they fit in best in the text. I will use the terms he and she randomly.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

3.0 Meta view on Talking Mats

This report is based on theories and articles from positivist research and approaches, though some are based on both positivist research and social constructivist research (Kennan, Brady et al. 2019).

When working with human beings, even neuroscience has acknowledged that the brain develops not through genes and chemistry, but most of all by the interplay with its surroundings, both people and material things. We cannot just use a tool, or a concept, when working with people and simply claim that it works. Two people in a conversation affect each other, and two conversations will never be alike. A tool like this can only be a frame for good conversation, and the interviewer (listener) will have to make judgements during the conversation about how to ask the next question, how to support the thinking process of the other person (the thinker), etc. Therefore, the interviewer must know why he is asking in this way, why we use symbols, why he must wait for maybe a minute for the answers, why he is sitting next to and not in front of the informant.

I have tried in this report to provide some feedback on the guidelines and values of Talking Mats, also because sometimes we are not using the whole concept as such, but simply having a good conversation that provides something new – new learning, decisions, eye-openers or just relation-building.

Working in the educational and developmental field, my starting point is always that development takes place when you are in an interaction with another person, or with your surroundings. The consequence of this sentence is that if you want to support or change developmental opportunities, then, to put it bluntly, you must start with changing your own actions or the surroundings. (Daniels and Hedegaard 2011).

We always interact with our surroundings, society, our near relations - as Bronfenbrenner points out in his Ecological Systems Theory. When things change, it makes an impact on our lives (Tissington 2008) (Campbell and Draper 1985). Learning and development take place between people. New theories talk about transaction as a basis for development (Sommer 2017) and the idea that you can never move on alone. Life (e.g. identity) is negotiated between people, and the relation cannot non-exist. Language is the way we negotiate (Gergen 2009).

The following sections refer to the activities and principles involved when using the Talking Mats tool - the information disseminated from Talking Mats Ltd, and what emerges from using Talking Mats in practice.

I will present the different theories and point out how Talking Mats illustrates these theories. Each chapter will be followed by relevant references. Some references are in Danish but are supplemented by English versions. See the List of References for a complete overview.

Campbell, D. and R. Draper (1985). Applications of systemic family therapy : the Milan approach. London, Grune & Stratton.

Daniels, H. (2001). Vygotsky and Pedagogy. London: Taylor & Francis Books Ltd.

Daniels, H. and M. Hedegaard (2011). Vygotsky and special needs education : rethinking support for children and schools. London, New York, Continuum International Pub. Group.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Gergen, K. J. (2009). An invitation to social construction. London, SAGE.

Kennan, D., Brady, B., & Forkan, C. (2019). Space, Voice, Audience and Influence: The Lundy Model of Participation (2007) in Child Welfare Practice. Practice, 31(3), 205-218.

Tissington, L. D. (2008). A Bronfenbrenner ecological perspective on the transition to teaching for alternative certification. Journal of Instructional Psychology, 35, 106

4.0 Working memory deficit

Most people with some kind of brain injury, congenital as well as acquired, do have challenges with the frontal lobes. As this is the most vulnerable part of the brain, and since it uses a high percentage of the brain's blood sugar and oxygen, injuries in the rest of the brain can influence the effectiveness of the frontal lobes. As far as our knowledge of the brain extends, the frontal lobes depend on well-functioning sensory processes, blood circulation and a supply of nutrients and neurotransmitters (Fredens 2012) (D'Esposito and Grafman 2019). Brain injuries, like Cerebral Palsy, complex syndromes and birth defects can result in poorer automatization, and this often affects the effectiveness of the frontal lobes' (Esben and Spastikerforeningen 2003). This has also proved a challenge for people with ASD and ADHD. Gathercole and Alloway (Alloway and Gathercole 2008) have extensively charted this phenomenon in several publications. A well-functioning, working memory in normal individuals is able to contain – as a rule of thumb – up to 5 years of age, 2 units. Up to 11 years, 4 units. From 13 years, 5-6 units, growing to 8 –10 units in adulthood. In the case of brain damage and people who are stressed or depressed, you often see a reduction of this capacity (Luethi, Meier et al. 2009). Furthermore, the frontal lobes play a significant role in the ability to keep focus, as well as in concentration and abstract thinking (Trillingsgaard, Dalby et al. 2003, Alloway and Alloway 2013).

Talking Mats offers a 'backup' working memory, since the topics we are talking about are visualized by symbols (or word pictures), which gives the informant (the thinker) the opportunity to check with the mat what subjects we are talking about right now, in addition to what we have already talked about, and to manipulate the subjects, e.g. by establishing a new priority of what matters more than something else. In this way, the working memory is relieved from the task of managing words and meanings, thus providing more space for thinking. It is all there on the mat. We can also preserve things for posterity by taking a photo, saving it on the iPad, or simply just hang the mat on the wall to recall the conversation when needed.

Alloway, T. P., & Alloway, R. G. (2013). Working Memory: The Connected Intelligence: Taylor & Francis.

Alloway, T. P. and S. E. Gathercole (2008). Memory and learning : a practical guide for teachers. London, Paul Chapman.

D'Esposito, M., & Grafman, J. H. (2019). The Frontal Lobes: Elsevier Science.

Esben, P., & Spastikerforeningen. (2003). "New CP" : cerebral palsy - hold to the light : a modernized approach suggests a new definition of cerebral palcy : now is the time for a paradigm shift. Frederiksberg: Danish Society for Cerebral Palsy.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Luethi, M., et al. (2009). "Stress effects on working memory, explicit memory, and implicit memory for neutral and emotional stimuli in healthy men." Frontiers in behavioral neuroscience 2: 5-5.

5.0 Attention support, the common third, avoiding eye contact, etc.

When working with people who have problems with focus, concentration and attention, we need to scaffold the 'scene', so that they will not spend too much energy on managing their challenges, but instead use their energy for the dialogue. That means that we must frame the dialogue. Talking Mats provides a physical outline for the dialogue, the conversation is kept on the mat, and the mat is lying between us. If your attention strays, then you can come back to the subject without losing energy trying to recall. The conversation is still there on the mat – visualized by the symbols.

An eye-to-eye conversation, sitting across from each other with a table in between, can be very demanding for some people. They use up energy trying to read the response in the other person's face, trying to translate, trying to adapt to be an accepted partner in the conversation, or they just give up and back out. To compensate for this we can use Stern's concept of 'The Common Third' (Stern 2019) (Alm, Astell et al. 2013): You and I talk about something. We can also use the term 'externalization' as proposed by White (White 2007, 2013). We talk through the mat. The things we talk about are on the mat, away from the person, and can easily be managed as a subject of conversation and not as a personal matter: moving from 'I am or have a problem', to 'there is a problem'.

Alm, N., Astell, A., Gowans, G., Ellis, M., Vaughan, P., & Dye, R. (2013). Supporting Conversation for People with Dementia by Introducing a Computer-Based Third Element to the Interaction. Communication Matters Journal, 27, pp 22-23.

Baron, M. G. (2006). Stress and coping in autism. Oxford
New York, Oxford University Press.

Krumwiede, A. (2014). Attachment Theory According to John Bowlby and Mary Ainsworth, GRIN Verlag.

Stern, D. N. (2019). The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology: Taylor & Francis Limited.

White, M. and M. White (2007, 2013). Maps of narrative practice. New York, W.W. Norton.

6.0 Recognition and appreciation – the power in the room

Most conversations used in the educational and social-educational field, in health care, or when working with vulnerable people in all possible constellations, take place between a professional caregiver, teacher, supporter, social worker, etc. – who represents the system, the community or the state and therefore by default represents a power – and the informant.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Foucault (McKinlay and Starkey 1998) states that power is everywhere, and we always bring it with us. Power is about control. Who can control the setting, the subject, the questioning? And who has the power to define what and who is right and wrong?

The art is to spot it, to lift in out in the open, so we can work with it. Habermas (Honneth and Joas 1991) suggests with the idea of 'domination-free conversation' that you take initiatives to let control of the conversation go, to ensure equal space, and to avoid hidden agendas. Of course, having a domination-free conversation is an ideal situation, but once you are aware of the power in the room, you can work with the parameters. Power can also be expressed by the most powerful of the participants through the setting, the time range, the use of acceptable words, eye levels, artifacts such as the room, clothing, the seating, the placing of a table between participants, etc. All these parameters are presented by Foucault in use of the Panopticon idea (McKinlay and Starkey 1998). Power is about control. Who controls the situation? Who has defined the situation? The informant in an interview, or in daily life, who finds himself in a questioning dialogue, may experience the conversation as control and pressure.

When you ask a child: “How was your day at school?”, the child may often answer: “It was okay!”. Now, this could mean many things, for example: 'Nothing interesting to tell you; I have no words to explain it; It was an awful day, but I don't want to tell you; I don't want to tell you, because then you'll just ask for more; If I tell you, you will use it against me; You always misunderstand everything I say, etc.'. The conversation may be perceived as an interrogation. So, what is happening here often relates to the question of a worthy and equal partner being recognized as a competent and trustworthy person, as used in Appreciative Inquiry for instance. According to the attachment theory of Bowlby (Krumwiede 2014) and Stern (Stern 2019) , a child will do its best to cooperate, simply because this is the way to survive and the child needs to be taken care of. Through this cooperation, a child will either do its best to try to answer what it thinks the interviewer wants to hear, or try to avoid conflict by saying something neutral, or just not answering at all (Baron 2006).

What you can do about this is give the informant control of the conversation: listening more than asking, giving time, not assessing the answers, but rather facilitating reflection by the informant, almost like a Socratic dialogue (Stefou 2018).

By using the Talking Mats frame, we as interviewers are prompted to ask in a more appreciative, more investigative way, being truly interested in the other person’s feelings, experiences, dreams, opinions and likes/dislikes. The principles of Talking Mats encourage you to use certain ways of asking and will help you to stay in the role of the listener.
Being heard in that way is perceived by the thinker as being recognized and respected. This supports their self-perception of 'counter-power', as Foucault (Foucault 2013) describes it. If the informant doesn’t feel that their opinion matters, that their expression is overruled, or not taken seriously, we may find that the informant does everything possible to avoid such situations and to avoid collaborating. It will not be their conversation, and they might not feel confident and safe enough to reflect and think about things.
The values and principles of Talking Mats can help you some of the way, showing you how to ask, to listen, to sit around the mat, to use open questions, give people time and hand over symbols to the thinker.

Baron, M. G. (2006). Stress and coping in autism. Oxford, New York, Oxford University Press.

Foucault, M. (2013). History of Madness: Taylor & Francis.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Honneth, A. and H. Joas (1991). Communicative action : essays on Jürgen Habermas's The theory of communicative action. Cambridge, Mass., MIT Press.

Krumwiede, A. (2014). Attachment Theory According to John Bowlby and Mary Ainsworth. GRIN Verlag.

McKinlay, A. and K. Starkey (1998). Foucault, Management and Organization Theory: from Panopticon to Technologies of Self. London, SAGE.

Stefou, K. (2018). Socrates on the Life of Philosophical Inquiry : a Companion to Plato's Laches (SpringerBriefs in Philosophy). Cham, Switzerland: Springer.

Stern, D. N. (2019). The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology: Taylor & Francis Limited.

7.0 Ways of asking

What you ask is what you get. If you ask in a certain way, you get a certain answer. If you are not aware of your ways of asking, you might block the conversation, or your informant might give you an unusable answer, or might answer something other than what you thought you asked about.

By using Karl Tomm's Circular Interviewing Strategies (Campbell and Draper 1985), you can as an interviewer choose between Lineal, Circular, Reflexive or Strategic Questions and with this in mind encourage certain answers that can help the informant reflect, dream, decide, etc. As the interviewer, we plan what the interview should end up with – not the exact result, but the direction in which we wish to move the informant, or what information we hope to get from him.

Talking Mat's principles of how to ask guide you to use open questions – Tomm's circular and reflective mode, with no certain answers, but making room for different interpretations of the questions, the situation, the dreams. One of the most used open questions in Talking Mats is "How do you feel about...?". All kinds of substantiating answers are usable. Questions like this open up the dialogue and allow the thinker to consider his point of view. You are also guided to use Closed Questions – in Tomm's theory defined as a linear and strategic mode – the answers to which can be more clarifying and decision-making: what activities you do, what people you trust, or maybe who you want to play with tomorrow.

Being aware of the different kinds of questions is essential in relation to Talking Mats – This is why the informant is called the thinker, and the main aim is actually not just to get information from the informant, but also to make them think and reflect on their own life (Tomm 1988).

Campbell, D., & Draper, R. (1985). Grune & Stratton. Applications of Systemic Family Therapy: the Milan Approach. Grune & Stratton, London:

Tomm, K. (1988). Interventive Interviewing: Part III. Intending to Ask Lineal, Circular, Strategic, or Reflexive Questions? Family Process, 27(1), 1-15. John Wiley & Sons, Ltd

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

8.0 Sensory sensitivity

According to the most recent definition of Autism Spectrum Disorders, as presented in the DSM-5 diagnosis system, sensory perceptual issues are now a part of the spectrum (Joseph, Thurm et al. 2015). During the last couple of years, we have gained a lot of knowledge about this specific area, such as that the person is challenged in terms of to making, maintaining and tolerating eye contact, accepting physical contact, and integrating the senses. We may read that physical contact, like a hand on the shoulder, may block the ability to listen (Bogdashina 2016). Just being asked to listen can lead to avoiding eye contact, disturbed concentration or just feeling unpleasant. (Higashida 2013)

Sitting beside each other in the Talking Mat interview, the informant is given space to concentrate on symbols, now talking, now listening, and then back to symbols. Mono-modality is there as a possibility, which makes the conversation easier, not only for people on the Autism Spectrum, but for everybody who has any difficulty with direct eye contact. Some people also benefit from using Talking Mats as a multi-modal approach.

Bogdashina, O. G. (2016). Sensory perceptual issues in autism and Asperger syndrome : different sensory experiences - different perceptual worlds (Second edition ed.). London Philadelphia: Jessica Kingsley Publishers.

Higashida, N. (2013). The reason I jump. New York: Random House.

Joseph, L., et al. (2015). Autism spectrum disorder. Boston, Mass., Hogrefe.

9.0 Expressive and receptive language

Informants might have some level of communication impairment – not being able to express themselves, a limited vocabulary, or having difficulties understanding words, and perhaps a shallow working memory that enables they to pick up only the last words in a sentence (Alloway and Alloway 2015, Fletcher and O'Toole 2016).

In these situations, Talking Mats offers the opportunity to prompt new words that the informant might know, but is not able to produce or recall from earlier use (aphasia, dementia, etc.), or simply enabling the informant to learn new words and concepts, to be introduced to new symbols, to have new symbols explained, and thereby actually learn new words as they speak. Learning words helps the brain think.

There is a difference between concrete and abstract understanding. Concrete understanding is the ability to understand the world around us, as it is displayed through our eyes, while abstract understanding makes it possible to look behind appearances, form ideas and interconnect actions and experiences. Strong language skills help you develop abstract thinking and understanding, since you are able to combine words in your working memory. (Schilhab 2014) At a certain developmental stage, the child has acquired enough words and concepts, and the “thinking process speeds up, allows the child to use fantasy, imagine things and get a grip of abstract thinking” (Arbib 2012).
Concrete thinking involves only those things that are visible to the human eye and are obvious enough to anyone who looks at them, and will only consider, retain and emphasize the literal meaning of anything - any idea or concept. Concrete thinking involves only those words or events that have a face value. Abstract and concrete thinking are two different ways of looking at the same thing. While abstract thinking notices the hidden meaning that cannot be understood by a layman, concrete thinking denotes a different meaning. It is always literal, to

the point and very direct, for anyone to observe and understand. Piaget (Piaget 2013) suggests that the child develops abstract thinking as language. Working memory evolves, and so it becomes possible to talk about something that is not there, which may be considered from multiple perspectives, and coupled with other knowledge.

Learning a language is complex, but using it, getting a response, being able to investigate the meaning of words and sentences are all tools to acquire and improve language skills. In Talking Mats you are often introduced to new words or allowed to choose between words and concepts that you already know but are not able to recall. Seeing the words or symbols that represent the word prompts the word or the concept in the mind, and allows you to express the thoughts.

New symbols and words can give you new ways of expressing your thoughts. For example, it is difficult to talk about feelings if you do not have words for them. And it is well known in therapeutic settings that the way you work with feelings is to talk about them (Leick and Davidsen-Nielsen 1991)

A conversation on Talking Mats can sometimes end up as a learning conversation, in which the informant is given new tools and a new way of talking and reflecting, because they acquire new words (Earl and Timperley 2008).

Alloway, T. P. and R. G. Alloway (2015). Understanding working memory. Los Angeles, SAGE.

Arbib, M. A. (2012). How the brain got language : the mirror system hypothesis. New York, Oxford University Press: xvii, 413 s., illustreret.

Davidsen-Nielsen, M., & Leick, N. (1991). Healing pain : attachment, loss, and grief therapy. Routledge London

Earl, L. M. and H. Timperley (2008). Professional learning conversations : challenges in using evidence for improvement. New York, Springer.

Fletcher, P. and C. O'Toole (2016). Language development and language impairment : a problem-based introduction. Malden, MA, Wiley-Blackwell.

Piaget, J. (2013). The child's conception of physical causality. Hoboken: Taylor and Francis.

Schilhab, T. (2014). Homo Concretus : how social interaction cultivates direct experience into abstract thoughts. S.l.: Theresa S. S. Schilhab. Copenhagen

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

10.0 Communication aid for users of AAC (Alternative and Augmentative Communication)

A wide diversity of people use AAC. Von Tetzchner and Martinsen describe three broad categories of AAC users:

> *"Expressive Language Group: individuals with relatively unimpaired cognition and receptive language, but who have neuromotor impairment affecting body movements and/or speech (e.g. Cerebral Palsy with no learning difficulty).*
> *Supportive Group: individuals requiring temporary AAC support (e.g. transient language delay), or those who only need AAC in certain communicative situations (e.g. Autism Spectrum Condition).*
> *Alternative Language Group: individuals who need AAC support for both receptive and expressive language development (e.g. Learning Difficulties)."*
> (Battye 2018) p27

Many AAC users use symbols for communication – on devices or low-tech solutions. As we know from language development, learning new words is done by using the words and meeting the words in your surroundings. The same is true of with symbol users. Language is learned when you use it, and when you mirror other people who use it. Using symbols in Talking Mats supports this awareness of the informant's already learned language, in order to continue learning the same language. In that perspective, Talking Mats can be used both as a way of conducting a conversation and as supplement to an existing AAC device. Find out if the informant is trained in PCS (Picture Communication Symbols), Widget, Makaton, Bliss, etc. then use the same family of symbols in Talking Mats. This might reduce complexity and help develop the vocabulary of the AAC user.

At the same time, someone who already depends on symbols in their AAC communication, is developing a strong visio-spatial competence, so it is important to consider whether the person is able to adapt to new types of symbols – e.g., using the Talking Mats samples.

Communicating by means of symbols must be seen as learning a completely new language. When offering a set of symbols for a setting, bring in some new symbols to give the informant the opportunity to nuance and expand his vocabulary. We learn new words when other people around us use them (Porter and Cafiero Joanne 2009).

Battye, A. (2018). Who's afraid of AAC? : the UK guide to augmentative and alternative communication. Milton Park, Abingdon, Oxon : New York, NY: Routledge.

Porter, G. and M. Cafiero Joanne (2009). Pragmatic Organization Dynamic Display (PODD) Communication Books: A Promising Practice for Individuals With Autism Spectrum Disorders. Perspectives on Augmentative and Alternative Communication 18(4): 121-129.

11.0 Narrations

Briefly put, social constructions are a particular way of understanding society, human beings, relations, negotiations - every context in which language is used between people. You could say that nothing is truth as such, everything is defined by somebody at a certain moment and disclosed to somebody else. Identity could be one of those constructions. See next section.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Narration is a branch of Social Constructivism. We make assumptions about our interlocutor on the basis of what are perhaps our own superficial experiences - assumptions about his skills, his failings or maybe his ability to participate in a conversation. We shape a story about him, maybe only in our own head, or maybe we pass the story on to other people.

Those stories define how we expect others to act. As professionals, or as related to a person, we expect certain patterns of behaviour, we look for the ways in which that person manages this behaviour, and will not be able to envisage alternative behaviour. (Rosenthal and Jacobson 1968) and Michael White (White 2007) define these stories as narrations.
When you direct your attention towards another person and listen to his own version of his life - his thinking, his reflections, his dreams - you see him in another light. That can make cracks in your prejudice and assumptions, and in this way build up another narration which opens up for the individual's possibilities of development.

In this perspective, we can say that you deconstruct earlier stories of the other person, and reconstruct more developmental stories, which might also be closer to the other person's self-perception - and could bring more harmony into the other person's life, thereby freeing the energy needed to change things (Ingemark 2013)

https://www.talkingmats.com/therapy-goal-setting-children/

Ingemark, C. A. (2013). Therapeutic Uses of Storytelling : an Interdisciplinary Approach to Narration as Therapy: Nordic Academic Press.

Rosenthal, R., & Jacobson, L. (1968). Pygmalion in the classroom : teacher expectation and pupils' intellectual development. New York: Holt, Rinehart and Winston.

White, M. (2007). Maps of narrative practice. New York: W.W. Norton.

12.0 Identity

How do I know who I am? Theories disagree on this major question in human life. Social constructivism holds part of the answer – you are who you can negotiate yourself to be. The young child is seen by its parents as a wanted child and will do its best to be accepted as a worthy and loved child in order to be taken care of - to survive. And it will, as far as possible, be where it is told to be. The child negotiates through its actions and behaviour, and gets feedback from its parents: "No, you can't do that", or "Yes, mummy likes you doing that". Later, the child will negotiate with its friends: "this is the way I am, so deal with that". As a grown up, you bring your story with you: your past, your interests, your relationships and dreams. All of these things define you as a human being (Stern 2019). But if you are not able to negotiate and make statements, and tell your own story, who are you? (Ehala 2018).

Talking Mats gives you the opportunity to talk about who you are, And to get a response from other people. This seems to be one of the most important effects of Talking Mats conversations: that the thinker is able to express views and reflect on them - and someone is listening.

See the Blog on Talkingmats.com https://www.talkingmats.com/developing-identity-and-talking-mats/

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Ehala, M. (2018). Signs of identity : the anatomy of belonging. Abingdon, Oxon
New York, NY: Routledge, an imprint of the Taylor & Francis Group.

Stern, D. N. (2019). Interpersonal world of the infant : a view from psychoanalysis and developmental psychology: Routledge.

13.0 Symbols (semiotic)

Meaningful units or parts define any language. Those parts we can call 'signs'. A sign is a communicative unit which makes sense both for the sender and for the receiver. The meaningfulness of this is agreed and negotiated – often over generations, but sometimes just in the actual situation. That is how we build a whole language – English, Finnish, Zulu, etc. (Deacon 1997). When you are a user of a non-oral language, the signs are still negotiated between sender and receiver, and might be pictures, symbols and concrete materials. The listener and the thinker can also negotiate the shared meaning of a more abstract image. If you are not able to discuss the signs (AAC-users), the listener will have to suggest some meaning and interpret the answers. But, as we have said, this is the way we learn language. When we use symbols instead of spoken or written words, we open up for a broader interpretation of a sign - something that enables the informant to express his reflections or his first thoughts about the given subject. And we as co-communicators are more open for the interpretation of a symbol, than of a word - and while words are more negotiated through ages and cultures, pictures are (and have always been) more open for personal translation and interpretation. If as an informant you might have a narrower range of vocabulary than the average for your age, you will be able to use a symbol, whether you know the 'name' or not, and thus create your own meaning (Light, Wilkinson et al. 2019).

Deacon, T. (1997). The symbolic species: the co-evolution of language and the human brain. London: Penguin Books.

Light, J., Wilkinson, K. M., Thiessen, A., Beukelman, D. R., & Fager, S. K. (2019). Designing effective AAC displays for individuals with developmental or acquired disabilities: State of the science and future research directions. Augmentative and Alternative Communication, 35(1), 1-14.

14.0 Cognitive level – compensation strategies

When working with people, especially in the field of disability or social vulnerability, you will always have to consider whether as an intervention you can offer activity or help – supporting the other person striving to develop greater skills or control their own lives, or having to offer compensation strategies to help the person move on.

Compensation strategies for all the people already mentioned means tackling a poor working memory, a low level of vocabulary, the negotiation of symbols, the interpretation of meaning, the power in the room, the ability to recall the conversation, might not be a reader, have never been asked to make a choice, experiencing cognitive delay, intellectual disabilities, or a development truncated by traumas, disease or environmental issues. All of the above can make conversations difficult (Lifshitz 2020).

When using Talking Mats, the guidelines actually help you to offer compensation strategies in order to help people free mental energy and participate in conversation, and to let the thinker

think and reflect, make decisions or get an overview. But where do we start when talking about cognitive ability?

There is an ongoing reflection among Talking Mats instructors about what cognitive level is demanded to get an outcome from a Talking Mats conversation. The answer is that you can never know the complexity of another person's disabilities. You will have to try it out. The informant might not have an expressive language that the surroundings are able to understand, but has an non-expressive language and a will to express himself. People on the Autism Spectrum might not answer ordinary questions, but in this structure they can find sense and will make choices.

Talking Mats has developed a circle diagram, pointing out which level you might try out using the mat. In general, the lower the cognitive level, the more present and concrete the subject and symbols should be, and the questioning should be adjusted to the informant's presumed language level. Starting up with closed questions can be more effective, or even omitting the sign, "I am not sure". Then evaluate the conversation, and adjust. The conversation may need to be repeated, because this form of dialogue is new to the listener, who has to experience the possibilities and the form of the conversation.

Lifshitz, H. (2020). Growth and Development in Adulthood among Persons with Intellectual Disability: New Frontiers in Theory, Research, and Intervention: Springer International Publishing.

15.0 Summary

As I mentioned in the beginning of this paper, Talking Mats has been developed and tried out in practice - and practice shows that it is meaningful for both informant and interviewer to use this tool.

The intention behind this paper is that I want to emphasise that I find Talking Mats very meaningful, because a lot of the structures that arise around Talking Mats, and the principles of the mat, can actually be explained by the different theories mentioned in this paper - theories which already show the importance of such factors as the way we ask, symbols, externalization of the dialogue, the acknowledgement of meaningfulness of the other, with his dreams, his opinions, and his ability to reflect on all this. We can even use neuropsychological underpinning. All this gives the informant a chance to be heard and to be seen as a worthy and equal person. Not only does it make the listener aware of good practice, but also arouses a deeper understanding, enabling them to improve their side of the conversation and pass this knowledge on to their peers.
This method is a way to strength empowerment and makes it possible to ensure that the UN conventions on human rights for people of all ages, backgrounds and abilities are respected.

Ida Marie Mundt
Master in Special Needs Education
Associate Professor
University College Copenhagen
Denmark

16.0 List of References

Danish references

Fredens, K. (2012). Mennesket i hjernen : en grundbog i neuropædagogik (2 ed.). Kbh.: Hans Reitzel.

Sommer, D. (2017). Udvikling : fra udviklingspsykologi til udviklingsvidenskab. Frederiksberg, Samfundslitteratur.

Trillingsgaard, A., et al. (2003). Børn der er anderledes: hjernens betydning for barnets udvikling. Kbh., Psykologisk Forlag.

Gathercole, S. E. and T. Packiam Alloway (2009). Børn, læring og arbejdshukommelse : en praktisk guide. Virum, Dansk Psykologisk Forlag.

Lisina, M. (1989). Kommunikation og psykisk udvikling fra fødslen til skolealderen. [Kbh.], Sputnik.

Sommer, D. (2017). Udvikling : fra udviklingspsykologi til udviklingsvidenskab. Frederiksberg, Samfundslitteratur.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

English references

(2013). Therapeutic uses of storytelling : an interdisciplinary approach to narration as therapy. Lund, Nordic Academic Press.

Alloway, T. P. and R. G. Alloway (2013). Working Memory: The Connected Intelligence, Taylor & Francis.

Alloway, T. P. and R. G. Alloway (2015). Understanding working memory. Los Angeles, SAGE.

Alloway, T. P. and S. E. Gathercole (2008). Memory and learning : a practical guide for teachers. London, Paul Chapman.

Alm, N., et al. (2013). "Supporting Conversation for People with Dementia by Introducing a Computer-Based Third Element to the Interaction." Communication Matters Journal **27**: pp 22-23.

Arbib, M. A. (2012). How the brain got language : the mirror system hypothesis. New York, Oxford University Press**:** xvii, 413 s., illustreret.

Baron, M. G. (2006). Stress and coping in autism. Oxford
New York, Oxford University Press.

Battye, A. (2018). Who's afraid of AAC? : the UK guide to augmentative and alternative communication. Milton Park, Abingdon, Oxon : New York, NY, Routledge.

Bogdashina, O. g. (2016). Sensory perceptual issues in autism and asperger syndrome : different sensory experiences - different perceptual worlds. London
Philadelphia, Jessica Kingsley Publishers.

Campbell, D. and R. Draper (1985). Applications of systemic family therapy : the Milan approach. London, Grune & Stratton.

D'Esposito, M. and J. H. Grafman (2019). The Frontal Lobes, Elsevier Science.

Daniels, H. and M. Hedegaard (2011). Vygotsky and special needs education : rethinking support for children and schools. London
New York, Continuum International Pub. Group.

Deacon, T. (1997). The symbolic species : the co-evolution of language and the human brain. London, Penguin Books.

Earl, L. M. and H. Timperley (2008). Professional learning conversations : challenges in using evidence for improvement. New York, Springer.

Ehala, M. (2018). Signs of identity : the anatomy of belonging. Abingdon, Oxon
New York, NY, Routledge, an imprint of the Taylor & Francis Group.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Esben, P. and Spastikerforeningen (2003). "New CP" : cerebral palsy - hold to the light : a modernized approach suggests a new definition of cerebral palcy : now is the time for a paradigm shift. Frederiksberg, Danish Society for Cerebral Palsy.

Fletcher, P. and C. O'Toole (2016). Language development and language impairment : a problem-based introduction. Malden, MA, Wiley-Blackwell.

Foucault, M. (2013). History of Madness, Taylor & Francis.

Fredens, K. (2012). Mennesket i hjernen : en grundbog i neuropædagogik. Kbh., Hans Reitzel.

Gergen, K. J. (2009). An invitation to social construction. London, SAGE.

Honneth, A. and H. Joas (1991). Communicative action : essays on Jürgen Habermas's The theory of communicative action. Cambridge, Mass., MIT Press.

Ingemark, C. A. (2013). Therapeutic Uses of Storytelling: An Interdisciplinary Approach to Narration as Therapy, Nordic Academic Press.

Joseph, L., et al. (2015). Autism spectrum disorder. Boston, Mass., Hogrefe.

Kennan, D., et al. (2019). "Space, Voice, Audience and Influence: The Lundy Model of Participation (2007) in Child Welfare Practice." Practice **31**(3): 205-218.

Krumwiede, A. (2014). Attachment Theory According to John Bowlby and Mary Ainsworth, GRIN Verlag.

Leick, N. and M. Davidsen-Nielsen (1991). Healing pain : attachment, loss and grief therapy. London, Tavistock/Routledge.

Lifshitz, H. (2020). Growth and Development in Adulthood among Persons with Intellectual Disability: New Frontiers in Theory, Research, and Intervention, Springer International Publishing.

Light, J., et al. (2019). "Designing effective AAC displays for individuals with developmental or acquired disabilities: State of the science and future research directions." Augmentative and Alternative Communication **35**(1): 1-14.

Luethi, M., et al. (2009). "Stress effects on working memory, explicit memory, and implicit memory for neutral and emotional stimuli in healthy men." Frontiers in behavioral neuroscience **2**: 5-5.

Lundy, L. (2007). "'Voice' is not enough: conceptualising Article 12 of the United Nations Convention on the Rights of the Child." British Educational Research Journal **33**(6): 927-942.

McKinlay, A. and K. Starkey (1998). Foucault, management and organization theory : from panopticon to technologies of self. London, SAGE.

Piaget, J. (2013). The child's conception of physical causality. Hoboken, Taylor and Francis.

Porter, G. and M. Cafiero Joanne (2009). "Pragmatic Organization Dynamic Display (PODD) Communication Books: A Promising Practice for Individuals With Autism Spectrum Disorders." Perspectives on Augmentative and Alternative Communication **18**(4): 121-129.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen

Rosenthal, R. and L. Jacobson (1968). Pygmalion in the classroom : teacher expectation and pupils' intellectual development. New York, Holt, Rinehart and Winston.

Schilhab, T. (2014). Homo Concretus : how social interaction cultivates direct experience into abstract thoughts. S.l., Theresa S. S. Schilhab.

Sommer, D. (2017). Udvikling : fra udviklingspsykologi til udviklingsvidenskab. Frederiksberg, Samfundslitteratur.

Stefou, K. (2018). Socrates on the life of philosophical inquiry : a companion to Plato's Laches. Cham, Switzerland, Springer.

Stern, D. N. (2019). The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology, Taylor & Francis Limited.

Tissington, L. D. (2008). "A Bronfenbrenner ecological perspective on the transition to teaching for alternative certification." Journal of Instructional Psychology **35**: 106+.

Tomm, K. (1988). "Interventive Interviewing: Part III. Intending to Ask Lineal, Circular, Strategic, or Reflexive Questions?" Family Process **27**(1): 1-15.

Trillingsgaard, A., et al. (2003). Børn der er anderledes: hjernens betydning for barnets udvikling. Kbh., Psykologisk Forlag.

White, M. (2007). Maps of narrative practice. New York, W.W. Norton.

Ida Marie Mundt, Associate Professor, Master in Special Needs Education, im@kp.dk, University College Copenhagen