

# Everyday Multisensory Environments, Wellness Technology and Snoezelen

ISNA-MSE's XII World Conference 30.–31.10.2014,  
HAMK University of Applied Sciences, Visamäki, Finland



**Marja Sirkkola (ed.)**

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# INTRODUCTION







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## **Introduction to the eJournal of The ISNA-MSE XII World Conference 30.–31.10.2014, HAMK, University of Applied Sciences, Visamäki, Hämeenlinna, Finland 'Everyday multisensory Environments, Wellness Technology and Snoezelen'**

It is a great honour for the teachers and students of HAMK University of Applied Sciences, to organize the XII annual world conference for the International Snoezelen Association – Multisensory Environment (ISNA-MSE) and for the guests from over 20 countries.

This opportunity and challenge became real last year in Buenos Aires, Argentina, where the ISNA-MSE XI Conference was held. After that, we soon organized specific teams at HAMK, where planning, working and meetings at different levels and time spans took place. We had to combine MSE-ISNA's wishes and also follow HAMK's strategic plan. This year's topics 'Everyday multisensory work, Wellness technology and Snoezelen' are evidence of successful co-operation between both partners.

### **Snoezelen**

ISNA's conferences have several times taken place in Netherlands and in Germany, also in Denmark, Canada, USA, and in Argentina. The idea of Snoezelen was created in Netherlands by Jan Hulsegge and Ad Verheul. Their seminal book 'Snoezelen another world' was published in English in 1987. The word 'Snoezelen' is a made up word of the Dutch words 'snuffeln' (sniff) and 'doezelen' (doze).

Recently I googled the word 'snoezelen' and got about 479,000 results in 0.34 seconds. It sure is a well-known word all over the world. Therefore it is worthwhile to use the term also in the future.

We, meaning all the Finnish snoezelen-fans, are really happy, that the 'father' of the Snoezelen- ideology, Ad Verheul, joins this conference and gives two lecture-type workshops on Thursday the 30th of October and a keynote on Friday the 31st of October, 2014. His articles are included in this eJournal.

### **From Snoezelen to Everyday Multisensory Environments**

HAMK and especially its 'Education and Research Centre for Wellbeing' are proud to be organizing this conference. We have been researching, teaching and evaluating Snoezelen/MSE since 1999. Nowadays all Bachelor-level students of social services at HAMK study the basics of Snoezelen/MSE. Before that, some teachers of the Institute of Social Services, later named Tavastia Vocational College, pioneered in teaching post-secondary level students the principles of the book 'Snoezelen-Another World' (Hulsegge & Verheul 1987) . We even made an excursion by bus to de Hartenberg, Ede, Netherlands. Helin, Louhiala & Palokangas-Koisti from Tavastia Vocational College have made a poster of their 'Sensory and Art experiences' course for practical nursing students for this conference.

For me, years went by with teaching, researching and creating multisensory environments at various learning and working environments. Eventually, studying as an 'overseas student' in Australia, James Cook University, with Dr Paul Pagliano as my supervisor, I published my doctorate thesis 'Multisensory Environments in Social Care'. Thanks to the 7 years' action research process, I got to present and publish several scientific and practical articles about Sociocultural Multisensory Work. Dr Paul Pagliano has been to Finland several times and he is our first keynote lecturer with his topic 'The Multisensory Environment- time to sense'.

The Finnish approach called 'Everyday Multisensory Environments' focuses on environments like forest, parks, and other outdoor places, as well as kitchen , sauna and living room settings. Also built environments like swimming pools, libraries, theatres, museums, market places and similar public places are considered MSEs. Social pedagogy with its participatory and empowering methods are the theoretical bases for sociocultural multisensory work. One example of this is HAMK's students 'Helmi Cafeteria' poster. It deals with parents' peer support and activities in MSEs for children with disabilities and for their siblings.

## Wellness technology and networks

HAMK's social services students have published over 50 Bachelor's theses on MSE/Snoezelen. Our mission as a university of applied sciences is to be active in research and development work with our Finnish and international partners in the workplaces. Many co-operators from workplaces have studied our 30 ETCS (European Credit Transfer System) further education program 'Professional Specialization Studies in MSE'.

Many of those former students have joined the Finnish Multisenso-network and join us now as conference participants and performers. Finnish Multisenso is a free organization based on voluntary work and annual meetings. Communication counsellor Jaakko Salonen from Helsinki has made an interesting poster of this work.

This autumn HAMK started a new research group which will focus on multisensory environment and the possibilities of wellness technology now and in near future. Our aim is to develop innovative equipment, working methods and smart service systems. We want to find new research partners and co-create something new. A conference like this offers excellent opportunities to find new partners!

Another indicator of HAMK's willingness to achieve even better education and do applied research on multisensory matters is the new Nordic-Baltic research group named SPEDUTEK project, and having its kick off meeting here in Finland. It is a three-year Horizontal Plus research project. We have 28 partners from Norway, Denmark, Sweden, Finland and Estonia. SPEDUTEK means 'promoting learning and development in multisensory environments with assistive technology solutions'.

We all know that education and research have to go together. It is great, that Dr David Grupe from Switzerland has started to collect and introduce education on Snoezelen/MSE in various countries. The aim is to create an international model and offer possibilities to study also in other countries. ISNA/MSE offers a good network to continue this job. This time David Groupe's workshop offers 'an imaginary travel in a Snoezelen/MSE room'.

## Conference learning

What is conference learning? Is it only easy and fun time listening to others and talking with interesting international people? Is it a nice time escaping from normal routines? Yes, but it is also something more.

What and how do people learn from each other? And how is especially so called 'silent knowledge' transformed to general knowledge? I assume that

conference learning has something to do with this. It is very important that those who know a lot, share their expertise with others through theoretical lectures, but also through workshops and practical exercises.

Sometimes, instead of speaking yourself, it might be better to listen carefully, pay attention and ask specific questions. This often happens at the lectures and at some workshop situations. The first step to learn is to write down, to follow the presentations and to collect the papers and all information given, but what is the next step? When do you really learn something useful for your own purposes is when you find something, which also benefits your clients' wellness.

Another interesting thing in conference-learning is the language problem. Many times the conference language is not one's mother tongue. It might be his second, third or fourth language. Then you really have to expand your concentration and pay attention especially when you present something or try to figure out the meaning of something specific. I assume that this struggle heightens your concentration level ...what is that person trying to say? How to express myself so that the message is clear? What is the core knowledge?

### **Variety of presentations**

In this conference we have a wonderful selection of presentations. They vary from developmental work to conference workshops, from scientific research to conference keynotes, from own experience to poster presentation and from multiprofessional innovation work to show room exhibitions.

Universities of Applied Sciences, and University Colleges all over the world, try to apply their research to everyday professional work. Many of the presenters at this conference have prepared their workshops and posters based on practical knowledge, on research and evidence-based projects or similar observations. Some papers or posters presented here are Bachelor students' projects like Helmi Cafeteria. Some academic presentations, e.g. PHD fellows like Henrik Svarrer Larsen's, demonstrate applied research work. There are also multiprofessional teams who present their scientific work, as the poster of Helena Kautola & team shows us.

Some of the conference guests travel from very far, e.g. Argentina, Venezuela, Australia and Japan. This gives a great taste of diversity and a hint of exotics to the Snoezelen/MSE work. Cultural differences are an interesting aspect and most welcome!

**SOME STATISTICS:**

Keynote speakers are from 5 different countries (Australia, Denmark, Netherlands, Sweden and Finland).

Workshop presenters are from 12 different countries (Australia, Netherlands, Canada, England, USA, Switzerland, Czech Republic, Spain, Brazil, Venezuela, Israel and Finland).

Conference guests and students from 20 countries (Australia, Netherlands, Sweden, Norway, Denmark, Canada, UK, USA, Switzerland, Czech, Spain, Brazil, Lithuania, Russia, Estonia, Japan, Belgium, Argentina, Venezuela, France and Finland)

Our web page [www.hamk.fi/isna-mse2014](http://www.hamk.fi/isna-mse2014) was visited from over 50 countries over 3200 times. We can easily call this an international world conference!

These numbers show how difficult it would be to mention the contents of all the 35 performers and their presentations in this introduction chapter. I thank everyone for their contribution and participation. It is time for you to enjoy these happenings and to get inspired by this conference eJournal.

I thank HAMK's personnel and our students for offering their time and energy to make this conference possible. We got to use the auditoriums and workshop facilities at Visamäki for free and many professionals helped us to make this event possible.

I wish all our conference guests a pleasant and exciting conference week and interesting moments while reading this eJournal now and later on!

**Yours,**  
Marja Sirkkola

*ps. Hämeenlinna will celebrate the 150th anniversary of the birth of Jean Sibelius next year. We already have many cultural events around the theme. One example is the welcoming party at Raatihuone, where Erkki Korhonen gives us a small Sibelius performance. See next page and read Marika Riikonen's article about 'The Sibelius Anniversary year 2015'.*

Illustration: Lasse Rantanen, 2012 © Sibelius Society of Finland



**Marika Riikonen**

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translated from Finnish to English by Glenda Dawn Goss

## The Sibelius Anniversary year 2015

The year 2015 is not far off. Its call is already resounding. The 150th birthday is being trumpeted around the world, but the most visible and striking commotion is taking place in the town of the master's birth. Hämeenlinna has already warmed up with annual Sibelius festivals for several years, and the anniversary year is accelerating the pace. The First International Jean Sibelius Composition Competition is already underway.

The Sibelius celebration is a festival for the whole town. Especially during this anniversary year the composer and his works will be presented from different perspectives, and the townspeople themselves will get to know the man behind the music.

Erkki Korhonen, the director of the Sibelius Birth town Foundation, commented on five aspects of the anniversary year programme.

### Concerts by Star Soloists

During the anniversary year Sibelius's compositions will be presented by soloists and orchestras that have not previously performed in Hämeenlinna – or perhaps even in Finland.

E. K.: 'In the year 2015 the world's top names will perform in Hämeenlinna. The aim is both to introduce the performers to the townspeople, as well as to show that Hämeenlinna does not pale in comparison to the world's concert venues. There is no threshold to playing or singing in Hämeenlinna!'

In case you are not familiar with all the works Sibelius composed, the anniversary year will be a fine opportunity to get to know them. The ambitious plan is to present nearly every one of Sibelius's compositions during 2015.

E. K.: 'Presenting Sibelius's extensive production means that the audience will get to hear the lesser known pieces. In his miniatures Sibelius is at his most honest. In large works he is hidden beneath the din, but in small works moods are expressed directly. In the miniatures he reveals his innermost self.'

### **The International Composition Competition**

Finland abounds with high-level, international music competitions. Still, one is lacking: a great composition competition. A contest bearing Jean Sibelius's name, launched in the autumn of 2013, will culminate in the anniversary year when the works of the winner will be premiered.

Inquiries have come from Japan and from Anglo-Saxon countries, where Sibelius is especially admired. There are no restrictions on participation; for example, the age of the winners cannot be guessed beforehand. Among the competitors there may be unknown talents or well-decorated old hands.

E. K.: 'Here in the town of Sibelius's childhood we are right at his sources of creativity. The idea of the competition is to continue that creativity. There have always been composers in Hämeenlinna, for example, Armas Launis and Tauno Marttinen. Yet the contest could well put a Chinese composer in the global spotlight.'

The Composition Competition is intended to be repeated periodically. Currently, new compositions are sought in three categories: chorus, piano and violin.

### **An International Sibelius Conference**

The Sixth International Sibelius Conference will be held in the Hämeenlinna Verkatehdas (the Cloth Factory) on 4–8 December 2015. The conference is organised every five years, and the anniversary year marks the fourth time it has met in Finland. The last such conference took place at Oxford in the UK in the year 2010.

Recent analyses and research on Sibelius will be dealt with in the various addresses. In the previous conference Sibelius's *Valse lyrique*, recently found in his estate, was given its premiere. It was performed in Hämeenlinna's Town Hall by the pianist Folke Gräsbeck, to whose credit also belongs the Finnish premiere of the composer's *Lulu Waltz*, found in 2013.

E. K.: ‘Of course, the conference should be held in Sibelius’s birth town in the anniversary year! Surprisingly, new perspectives on the composer are always being found. Scholars will arrive from different parts of the globe. Sibelius is studied most in the Nordic countries, the United States, the United Kingdom and France, but there are also a number of Sibelius researchers elsewhere, for example, in China and Australia.’

### **The Festival Book *My Sibelius***

What kind of man was Jean Sibelius? What kind of family member was he? What memories did he leave, and how has he influenced art today? These questions will be discussed in the pages of *My Sibelius*.

A commemorative volume, *My Sibelius* (Minun Sibeliukseni) is based on various authors’ Sibelius experiences and ideas, and it will appear even before the anniversary year begins. The book is being distributed in no fewer than three languages – Finnish, Swedish and English. It is being edited by the former editor-in-chief of Helsingin Sanomat, Sibelius’s great-grandson Janne Virkkunen, and the author and journalist Lasse Lehtinen. Among the contributors are the conductor Okko Kamu, the operatic soprano Karita Mattila, the music writer Marc Vignal and the composer Iiro Rantala. Altogether there are some twenty authors.

E. K.: ‘The book will be a tangible memento of the anniversary year. The aim is to put together an accessible work that opens to the reader the world of Sibelius in an entertaining way. The book can be read piece by piece: one article now and another one later.’

### **Sibelius Seasons**

The programme for the anniversary year is packed with different kinds of seasonal events lasting several days. In addition a special Sibelius birthday party will be held on 8 December 2015. The party will take place on a Tuesday.

During Sibelius Winter, Sibelius Spring, Sibelius Summer, Sibelius Autumn, as well as in the December birthday parties all the composer’s seven numbered symphonies, among other things, will be heard.

During the festival season there are also various fantasy presentations, such as the now well-known autumnal Sibelius-fantasia on the market square in Hämeenlinna, plus unprecedented orchestral visits.



E.K.: 'The events are intentionally arranged in large blocks in order to give the members of the public coming from out of town a chance to spend time in Hämeenlinna and, along with attending the events, get to know the city at leisure. For the anniversary year many well-known happenings are being revamped and expanded.'

<http://www.sib.fi/>

<http://sibelius150.org/en>

# KEY NOTES





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## The Multisensory Environment – Time to sense

### Part 1

#### Abstract

This paper provides a new synthesis of the current research literature into the role time plays in sense development. In so doing it seeks to explore possible strategies that could be used in the Multisensory Environment to help alleviate problems associated with faulty time perception. A sense of time is thought to provide the glue that binds multisensory experiences and be fundamental to recognition, attention, differentiation, understanding causality, and memory.

#### Introduction

Greetings everyone. Thank you for inviting me to be a keynote speaker at this conference. And a special thanks to Dr Marja Sirkkola and her team for making us all feel so welcome here in Hämeelinna, Finland. In addition I'd like to extend a hearty welcome to Ad Verheul who along with Jan Hulsegge developed the first Snoezelen in the Netherlands. I also want to acknowledge our ISNA/MSE President Mauritz Eijgendaal.

I'm excited to be here at ISNA-MSE's 12th World Conference. The conference theme is: "Everyday Multisensory Environments, Wellness Technology and Snoezelen". It's this theme that has informed the title of my paper "The Mutisensory Environment – Time to sense". I plan to show you that the sense of time is a fundamental and that Snoezelen-MSE practitioners need to recognise and manipulate it just as much as the conventional senses.

As you no doubt know I'm from Australia. I therefore want to share with you a picture of some ancient Aboriginal rock art from the Kimberley in Northwestern Australia. The painting is of Wandjina who are cloud and rain spirits. According to Aboriginal Dreamtime these spirits helped to create the land and its people.

It's easy to understand how this Dreamtime story came into being because over time rain and water have a powerful molding effect on nature, as can be seen in this picture of 'The Three Sisters' formation in the Blue Mountains inland from Sydney. But time doesn't only affect the physical environment. Every living thing has a relationship with time. One of the most basic relationships living things have with time is the circadian rhythm.

### **Circadian rhythm**

The word circadian comes from the Latin – circa meaning around and diem meaning day. Circadian rhythm refers to the day/night cycle and it is widely observed in plants, animals, fungi, and interestingly even in bacteria. Time is part of the evolutionary process for all living things.

The National Institute of General Medical Sciences (2014, para 1) define circadian rhythms as “physical, mental and behavioural changes that follow roughly a 24-hour cycle, responding primarily to light and darkness in an organism's environment.”

Two key characteristics of circadian rhythms are that they are:

1. endogenous (that is they are built-in to the organism and are self-sustained)
2. entrainable (that is they are external to the organism but are able to be adjusted to the local environment).

The way living organisms adjust to their environmental context is through zeitgebers, which is a German word for 'time givers' in English. Zeitgebers are external cues such as sunlight or lack thereof within the 24-hour cycle. Zeitgebers align our body clock to determine when we sleep, wake, eat and drink.

I'm certainly aware of how powerful this body clock is. It was a 30-hour trip here from Australia through eight time zones so when I first arrived my circadian rhythm was severely out of alignment. I had jet lag.

Other names for jet lag are circadian dysrhythmia and desynchronosis. Fortunately my inherent circadian rhythm was entrainable and so after a few days everything was back to normal. A realignment like this is a rela-

tively automatic and subconscious process to regain homeostasis. Circadian rhythms however are not our only relationship with time.

### **Chronoception – sense of time**

We also have a sense of time called chronoception. The word chronoception is derived from the Greek *chronos* meaning time. In Greek mythology Chronos was the god of time. In the middle ages he became known as Father Time.

Chronoception is a transformational integrative meta-sense, which is essential to all early sense acquisition. That is a complicated idea so I am now going to unpick it for you.

I'll start by considering some basic terms. The first is stimulation.

Stimulation is anything that triggers activity in a sense nerve receptor. Anything that is seen is visual stimulation, anything that is heard is auditory stimulation and so on for each of the senses.

A sense is any faculty that accesses stimulation from inside or outside the body. The senses that enable us to access stimulation from inside the body are called the senses of interoception. These are proprioceptive, vestibular, and any other sense receptor stimulated from inside the body. The senses that enable us to access stimulation from outside the body are called the senses of exteroception. These are vision, hearing, touch, taste, and smell.

The important point here in the definition of 'sense' is 'accesses stimulation'. For this to occur, the various sense organs are working in the context of chronoception. Chronoception is a meta-sense because it is a necessary change component for the senses of interoception and exteroception. I call this meta-ception.

This leads me to the third term I want to define, namely perception.

Perception is the process of becoming aware of, recognizing and interpreting the stimulation. Sensory perception is similar to the term sensory processing. Sensory processing is an umbrella term that refers to the interface between where a sense ends and where perception begins. Sensory processing therefore describes the idea of the senses and perception working together.

Chronoception is the mechanism that enmeshes the senses and perception. With sensory processing the sensory stimulation needs to be powerful enough to cross the sensory threshold. A threshold is defined as a boundary, the point that must be exceeded to produce a given effect or result or

response. For the sensory stimulation to be effective it must be 'powerful enough' to trigger in the nerve receptor a cascade of neural electrical impulses. Chronoception transforms and integrates the sense stimulation to determine whether or not it crosses that sensory threshold.

With sensory processing there are three important thresholds: the detection threshold, the recognition threshold, and the differential threshold. It is a process of learning by doing. The more we do it the easier it becomes.

The first time related sensory threshold is the detection threshold. The detection threshold refers to the minimum level of sensory stimulation necessary for the person to be able to perceive that stimulation. Although initially the detection threshold might be quite high, however with ongoing use, the detection threshold will lower, thereby making it easier for the person to be able to detect the stimulation.

As the pool of experience accumulates in the brain, over time and through repetition the sensory stimulation passes over a new time related sensory threshold, the recognition threshold. Now the person is not only able to detect the sensory stimulation, the person can also remember it.

With even more experience the pool continues to grow and eventually the person is able to add a new level of processing the sensory stimulation, that of making differentiations. This third time related sensory threshold, the differential threshold is the level at which a recognised stimulus can be discriminated.

This form of sensory processing provides the foundation for the development of sequential skills including all forms of communication. With speech and language, we must be able to decipher whether a sound is different to another sound before we can add those sounds together to form words and sentences. Chronoception is crucial.

Chronoception enables us to unify different sensory experiences to make them multisensory.

As each type of sensory information is processed at a different speed the brain must learn how to overcome these disparities by waiting for the slowest information to arrive. Eagleman (2009) calls this process temporal binding.

***Part 2 will be presented at the conference.***

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**Jukka Jokiniemi**  
PhD (architecture), MSc (engineering),  
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## Environment suitable for all

Estimated 1 – 3 per cent of the population is visually impaired. As aged people grow in numbers, the percentage is likely to increase. The prognosis is that up to 30 per cent of EU residents will suffer from some kind of functional disorder in the near future.

This research aims to clarify the requirements that a built environment has to fulfil in order to allow a visually impaired person to move around as freely as possible. Modern architecture effectively accounts for the requirements of moving around easily.

The needs and requirements of the visually impaired are not yet sufficiently known or taken into consideration when planning the built environment.

23 public or semi-public spaces from the capital area were chosen as objects of research: land transport terminals and vehicles, ferry and air terminals, service facilities, schools and convenience stores.

The research targets were chosen so that they would represent everyday situations outside the home as widely as possible. Entrances, lobbies, access ways, stairs, escalators and lifts were all under scrutiny in the research targets. Each feature was then evaluated in terms of recognition, colouring, contrasts, lightning and signs.

The research was conducted by means of a jury of 15 visually impaired people. The jury members were chosen so that the different visual illnesses were represented as accurately as possible compared with their proportionate distribution in Finland. The research was carried out by using a standard questionnaire.



A visually impaired person usually experiences one or several of the following symptoms: impaired accuracy of sight, inability to tell contrasts and colours, incomplete visual field, impaired and insufficient eye adaptation to changes in light levels and dazzle. These symptoms and the problems they create vary from person to person according to the nature of the visual impairment. This research shows that there are some basic elements that make the built environment suitable for the visually impaired.

A visually impaired person compensates for the weakened vision with other senses, for example with hearing and touch. Increasing non-visual information also increases the possibilities of the visually impaired to function independently in the built environment.

### **City for all senses – Accessibility and cross-modality in the built environment**

Through separate case studies, this study explores the cross-modal impacts of the built environment that works in accordance in visually impaired people's orientation. The study examines the impact of guiding voices of traffic lights, guiding materials on pavements, accessible outdoor lighting, contrasts and cross-modality in urban environment. Five separate case studies were sought after for solutions improving accessibility for visually impaired citizens and found results that are suitable to put into practice.

The empirical study material was gained indoors, outdoors and in laboratories. The study results have been analysed with statistical and qualitative methods. In all case studies there were visually impaired test subjects and in some there were also test subjects that had normal visual capacity.

Contrast Stripes for Visually Impaired – study revealed the asymmetry of the seeing of contrasts: the contrast of dark stripe turned out to be clearer than the contrast of light one on all of the backgrounds examined.

The affordances in nature proved to be functioning and pleasant as the guiding voices of traffic lights where birdsong was used.

On cross-modal walks 11 indoor and outdoor spaces were evaluated. These spaces were transportation hubs, parks and facilities for visually impaired. The affordances in these spaces were divided into positive, neutral and negative and they were compared to the experiences of pleasantness, human-friendliness, the ease of functioning in and the architectural elements. The affordances of the environment need to be positive or at least neutral in order for the space to be felt humane and pleasant.

Taking into account the different affordances it is possible to create a high-quality pleasantness in the environment. From visually impaired peoples

point of view the special need for accessibility ought to be taken into consideration in planning. The environment has to offer recognizable landmarks for different senses so that visually impaired people can take actions independently. By adding affordances for one sense it is not possible to gain the same advantage as by offering affordances for several senses. When affordances are versatile, one sense's poorer function doesn't fully paralyze a person's ability to act.

Today's accessibility recommendations are lacking the guidelines for taking into consideration the needs of visually impaired people. This study provides a concrete foundation for creating the recommendations.

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## **Snoezelen – “niets moet, alles mag”**

## **Snoezelen – “nothing has to be done, everything is allowed”**

Dear colleagues, dear guests,

Snoezelen was originally conceived as a leisure activity for people with severe mental handicap, where they can relax and find themselves.

To do that a situation is necessary for which in contrast to everyday life the senses are not addressed simultaneously but where they have to concentrate on individual sensory perceptions for example to touch only. The senses shouldn't be addressed in width but in depth. To achieve that, we try to offer stimuli in a selected way and reduce unnecessary stimuli at the same time. The offer of stimuli should be chosen in such a way to make nice and pleasurable sensory perceptions possible for a disabled person as well as to offer special experiences that can't be made in everyday life. One should feel good and safe.

The principle is to give the disabled person the necessary space and time, to choose for himself or indicate which stimuli he enjoys, what he wants to concentrate on for longer or what he wants to do.

The encouragement of the residents shouldn't come only from staff but from the things in the room: material and environment should be inviting and stimulating to activate the disabled person to, for example, reach for something or lie on a soft mat etc. At the same time the environment should bring the necessary peace and quiet to make relaxation possible because experiencing the direct environment, taking it all in and passively enjoying it are already outcomes.

Snoezelen with its dream atmosphere is meant to be a place where one can leave everything behind and find complete relaxation.

Accordingly, calm music and dimmed lights should help to create a special atmosphere. Other institutions state besides or instead of our aim of rest and relaxation, the stimulation of the development or therapeutic intentions, for example consciously to use Snoezelen to make worried clients well balanced again.

The basic principle in Snoezelen is:

***“niets moet, alles mag” which means, “nothing has to be done, everything is allowed”***

Unlike in the housing group where certain restrained ways or activities are demanded from the disabled, during Snoezelen he should be allowed to be himself and to do whatever he likes. The accompanying members of staff should therefore distance themselves from their own ideas and expectations and let the clients have their own way, even more so than ever. Free use of Snoezelen material is permitted. If for example someone does not want to smell a smelling device, but would like to rotate its stand, that would be accepted. The voluntary intention of the offer is particularly important. It is not about a collection of material experienced according to course but about a varied and atmospheric offer of sensual impressions that should be used voluntarily and gladly. One who does not like it after a settling in for a period does not have to take further part in Snoezelen.

After the construction of the first Snoezelen-room in the early seventies, the design of the materials and implementing the ideas was pioneering.

There was no experience available at all for the practice of Snoezelen that could have supported our work. We could merely orient ourselves on the theoretical medical model and search in discussion for general consent. That was very time-consuming and there was always one person not present at such a discussion, which meant we often had to start all over again to explain the basics. We could have talked for many days and nights about our experiences with people with multiple disabilities, but that was not realistic. Because of that we decided to simply try Snoezelen but to make sure to reduce or avoid the risk to undergo unpleasant experiences. We observed the disabled people and how they reacted to the various stimuli. We realized, that every person reacted individually to the different types of stimuli of light, colour, vibration and sound. It was important to make notes of our observations and to reflect on them in meetings afterwards. The result was a structured model which led us to realize that Snoezelen was not only a method for relaxation but could also be a therapeutic influence.

There we were with our working method in contrast to treatments and methods based on scientific backgrounds. We followed the theory, that a person with deficits should not be treated like a frail porcelain doll but confronted directly with something new. I have to emphasize, that as a matter of course risks and dangers are and were eliminated.

In the early stages we tested particular objects directly at the bedside of a person. We build mobiles, used lights and different sounds and exchanged these materials on and above the bed again and again. We recognized that Snoezelen should not just be relaxation but also an experience. It doesn't have to have a direct objective, i.e. to learn or rediscover something. Snoezelen is generally about experiencing and predominantly about relaxation.

In Snoezelen the focus lies with the companion who supports people equally. In daily practice there is always the danger that one directs and steers too much. During Snoezelen it is much more important, to observe carefully, how a disabled person responds to his/her surroundings. A person in a wheelchair for example will not oppose when she's moved somewhere, she will not complain, one could move her anywhere without her resistance. But we don't know very much about that disabled person, she can't tell us what affect her surroundings have on her, what she experiences and feels within her body. It could be very disappointing when an offer is planned and designed vigorously but then suddenly it is not accepted. One had studied everything, made experiences and now one has to step back a few steps and start again. One is trained in methods, in specific didactic, has learned to work with verbalized objectives and then one has to forget all that for the time being. For many members of staff that represents a big problem. We have to learn to adjust to the level of a disabled person and to relax as well. That also causes problems for many staff members.

We grew up in a society, in which everything is aimed at a goal and at the end of the work there has to be a product. Everything is controlled and measured and results validated. The staff working with disabled people also has the goal to achieve something, to create a product and to be active. Now all of a sudden they have to step into the background and sometimes simply watch over a long period of time in which nothing happens with the client. That makes a caregiver restless.

*A practical example should illustrate that:*

*Imagine, there is a caregiver and he walks into the Snoezelen-room with Georg, a disabled man. They both lay down on the waterbed. It feels pleasant, relaxing and warm. A colleague looks into the room and sees both people resting on the bed. He doesn't say "Don't you have anything better to do?" but his look speaks for itself. That unsettles us. It is not about justifying ourselves to the disabled person but to our colleagues with the same education. One feels that he now*

*pictures me as being not active myself whereby everybody else at work is struggling.*

*A different situation: Georg enters a therapy room for occupational therapy. He lives at home and one of my colleagues escorted him on the bus journey. Of course he's greeted with "Good morning Georg, have you slept well, did you have a nice breakfast?" But Georg can't talk and consequently the conversation is one-sided. To begin with Georg stays in his wheelchair. But when he's instructed "Sit down", he gets up slowly and moves towards the table and takes a seat on a chair. Because of a long lasting relationship he knows, that "Sit down" means, to sit down in an adapted chair, to choose from the materials provided, to look around and even to relax sometimes. Music is played quietly in the background and I am chatting to Georg: "How was your evening? Did you watch TV" I don't expect a reply but that is the usual communication. Suddenly the door opens and a colleague comes in to remove some objects that had been left in the room. She says: "Sorry, I am a bit forgetful. Can I get the materials?" No problem, she greets Georg "Good morning Georg, have you slept well?" Then she goes to the cupboard, takes the materials and leaves the room. Nothing special – but the same colleague returns 30 minutes later with the same excuse. When passing, she keeps looking into our direction and I am still sitting there with Georg, without us having moved from our spot. In front of him are craft materials and everything seems very harmonic. The music plays quietly in the background but up to now nothing has changed. 45 minutes later the colleague returns with a different excuse. But now comes the question: "What are you actually doing?" In her mind she pictures an activity room where the therapist works with his happy client, but all the time she couldn't see any activity.*

*The example may seem very blatant, but that's the daily practice of our work. There are two possibilities to answer the question: A: "Yes, we enjoy just sitting here, don't we Georg?", but Georg wouldn't say anything. He looks around and finds it all quite nice. He doesn't complain. Or Answer B: "Yes, I am busy and my aim is it, for Georg to discover the materials by himself." I am not adding any more targets yet. Again Georg is not complaining*

*Another situation. Again Georg enters the room in his wheelchair; I greet him, as well as another colleague who enters the room. This time I am not saying "Sit down" but I just wait and see what Georg will do. After about 5 to 10 minutes Georg climbs arduously and completely unexpected out of his wheelchair and walks with difficulty to a window that is about three metres away. There he stops, supports himself with one hand on the window sill and looks out of the window. He always does that – as I discovered in the mean-*

*time – when I don't say "Sit down". Something forces him, to look outside. I don't know, why. I stand next to him and look out of the window as well. Yes, it is a bit cold, I realized it this morning. There are trees, green meadows, but apart from that nothing special to see. I realize that I get bored, since I know the picture in front of the window. From my experience I know the outside temperature, the green trees; I know they are pine trees. Same situation as before. The forgetful colleague comes in again and gets the things she'd forgotten. Again she expects us to be active. She didn't see any activity when she entered the room 25 minutes ago. As with her previous visits she doesn't ask the question yet, why we were standing at the window. Only 45 minutes later when she returns to our room she asks: "Why are you standing in front of the window all the time?" Answer A could be: "We enjoy standing here, don't we Georg?" Georg doesn't say anything but he doesn't complain either. Answer B could be: "Yes, I am preparing for the forest therapy." "Oh", says the colleague, "that's new, I haven't heard about that before."*

*With the help of these examples I am trying to demonstrate, how the attitude towards dealing with disabled people can be different. It would have been easy to sit down at the table with Georg, to give him sandpaper and to animate him to sand the logs. We would have had a product and after approximately 45 minutes we would have had about 40 smooth logs on the table. For the companion that would be a very safe and putatively satisfactory situation. It shows that the disabled person has been supported, that he learns something, that he can create something and that I am capable of animating a person. But suddenly the situation changes: We stand in front of the window and after 10 minutes I am already bored. Next to me is a disabled man, who can't tell me anything, for whom it is difficult to move away from the wheelchair towards the window. But there is something that motivates him to that activity, but I can't recognize and capture it. Apparently Georg enjoys standing in front of the window, but I find it difficult to linger for such a long time. Nothing forces me, to stand there and linger. But for me it is the disabled person who is my guideline. After 45 minutes I standing there empty handed, have nothing to show for, no product, no result and that's the problem I am oppressed by.*

*These examples illustrate the thoughts we had during the first few years of the daily practice of Snoezelen.*

We were confronted with things we were not familiar with. We didn't know very much about the world of a disabled person. We had to start to put ourselves into a severely multiple disabled person's position and had to learn slowly to discover the tasks for the practice. What could we offer? How do disabled people react to it? The first step was to simply try things out, to

apply them and observe how a disabled person reacts to particular stimuli. Above mentioned examples are certainly showing the different worlds, in which a person with severe multiple disabilities and the companion or therapist – or whatever we would like to name him – live.

Companions support the disabled, they accompany them and the activity is always subjective. With other people we can have discussions, can exchange and receive replies. If we have communication problems among colleagues, we can explain things further and discuss them for days. That is impossible with people with severe – and multiple disabilities who are not capable of expressing themselves through speech. Mimic and gestures, that is a person's body language, can be of help. But to make use of that, experience is needed and most of all guidance by people, who have been practicing for years. In our thirty years of practice we have learned to accept people just the way they are. Their reactions have to be recognized and taken on board. It is our job to accept their behaviour, steer it if necessary and offer the disabled person – not only in Snoezelen – a comfortable, happy and secure atmosphere.

*Snoezelen has a lot to do with body language and experiencing the body. We get very close to a person we are taking care of. But in our society touching a body without permission represents a big problem and is partly forbidden. However, many disabled people only react to direct contact. Tactile experiences play a very important part and I would like to demonstrate the case of a blind man, called, let's say John, from our institution. When he enters the white room, he always takes his seat on the wooden platform with the three bubble units. We thought about what we might have done wrong and only through our own experiences we then realized, that the air pump releases vibrations. The man seems to love these vibrations. Usually a companion would lift the less mobile people from the wheelchair and put them on a mat one day the companion forgot about John who was left behind in his wheelchair in the hallway. About half an hour later they looked for him but the wheelchair was empty. John had jumped like a frog to the wooden platform and sat next to it. That is a nice example but it also demonstrates our work and the need to wait and see. In the meantime we let the blind man act independently. After 15 to 20 minutes waiting in his wheelchair, whereas John locates the individual sounds and moves his head back and forth, he drops to the floor and crawls along the hallway like a frog. The heated areas of the light floor with different temperatures and the touch boards help him to find the white room. Here he presses his body against the wooden platform and starts tapping it with his palm. His position is always the same and the tapping lasts with precise regularity over 1.5 to 2 hours. Once the bubble units are switched off, he presses his body harder against the platform and stops tapping the wood.*



The discussion with the other companions within the room is surely necessary. The knocking does disturb the quiet atmosphere, but that might only be perceived subjectively. Some of the people in the room are not annoyed at all. The blind man – like many other group members – can't give me any feedback on what he experiences as pleasant or unpleasant. We have to learn to wait and see, not to jump in to help a disabled person and to look more closely. That demands much more time and additional members of staff.

Many devices within Snoezelen were developed from daily observations and practice. One example is the bubble units, one of our first pieces of equipment. These water columns exert strong visual stimuli. 60 to 70% of our world is perceived via the visual system. But the example shown above demonstrates that for the blind man the bubble units are not of interest because of the visual but because of the tactile or vibrating stimuli. The same applies to the platform, which is usually covered with a soft material. We have noticed that that is not necessary, since many of our severely disabled people prefer to feel the vibrations directly through the board. Another example is a touch wall, which the disabled people didn't feel with their palm but with their heads and finger tips. They could feel the vibration better through those body parts than with the palm of their hand.

In the early years we recorded many videos to capture the reactions of disabled people. We analysed them then adjusted the materials and the production of new objects to the needs of these people. We discovered that Snoezelen offers predominantly relaxation but in the case of people with conspicuous behaviour and aggression it leads to positive changes. Slowly the idea grew, to structure the offer more thoroughly with the help of trained therapists. One example is a man of about 50 years with severe aggression. He destroyed many items in his living area, which meant that the entire area had to be secured. My colleagues suggested that within 5 minutes he would destroy the sensitive materials in the Snoezelen-room as well. In the Snoezelen-room he displayed a completely different behaviour and so far he hasn't damaged anything at all. That might be due to all the different stimuli, which have a very complex impact on visitors. Maybe because of so many impulses he felt released from the pressure to having to destroy something. The waterbed played a very important part for him, because it calmed him down and had a positive influence on his behaviour.

Today we can use all our experiences and consider them in our meetings. We have learned to step back and observe the behaviour when a disabled person visits the room for the first few times. What is the muscle tension like, how tense are they generally, to which signals do they react first and what kind of reaction do they show? We receive many different signals and often we will need help from relatives to make sure we interpret the signals correctly. Now we have some kind of "personal dictionary" for each of our clients. It is some sort of archive in which we save pictures, video clips and

reactions. Such information is very important for so-called activity companions and other staff members as well as the dialogue with relatives. A long lasting relationship with these disabled people does certainly help to be able to do the right thing. But new colleagues have to be introduced and instructed for them to be able to quickly adjust to the needs of a disabled person. Our institution has a very low fluctuation, which of course is very positive. Most of our staff members stay for many years and they emphasize the fact that working with disabled people has also influenced them personally. Working in a Snoezelen environment brings harmony for the staff; they are often in unison with the disabled person. And that is also what our philosophy is all about.

### Atmosphere

*While listening to the description of the rooms and the individual elements one could easily get the impression, that these things are simply available in the room and one just has to choose anything like one would take a toy from a shelf or use a the activity on a playground.*

But, based on my own experience, as soon as one opens the door and enters a Snoezelen room it feels like diving into **another world**. The first impression is one of the complex atmosphere without recognising the individual elements or reasons for the effects straight away. Once one lets the impression take effect and gets used to it gradually, only then individual the objects one is interested in come in to the foreground and stimulate them to see, feel, hear and experience.

The impression is probably comparable to entering a disco, a fun fair or a church where at first the entire atmosphere and mood will be taken in and only later visual, auditory and olfactory sense perceptions can be differentiated and put in order.

In Snoezelen it is the impression of a dream world in which one can dream and relax and by experiencing the environment one will be able to perceive one's own body more consciously. Very important elements of Snoezelen are colours, light, movement and most of all music.

### The Snoezelen Complex in the De Hartenberg Centre

The De Hartenberg near Ede is a big central Snoezelen complex in operation since February 1984. This Snoezelen Centre was intensely used up until September 2000. Since September 2000 a completely new room of approximately 410 metres square is in operation.

Snoezelen premises became part of the daily activity concept. The centre is open daily from nine in the morning until five in the afternoon. There is no set timetable. The groups from the living quarters and from the daily activities can come into the room at any time they want. The size of the groups is decided by the group leader, but one can also come alone. The size of the groups and the frequency of visits do depend on availability of personnel, the degree of disabilities, the behaviour of individual visitors, different activities as well as the weather. Since one is at liberty to use the room at any time one can spontaneously decide to practice Snoezelen. There are no restricting timetables one has to stick to. That makes it easier to respond to clients' activities more consciously.

At the same time parents have the chance to practise Snoezelen with their children at any time without having to make an appointment. They make great use of that.

Besides the permanent available Snoezelen Complex there are enough opportunities to practise Snoezelen in natural living and life situations in the daily contact with the residents as well as in temporarily installed Snoezelen rooms in the living quarters.

The new Snoezelen Complex has four rooms: a projector room (White room) of 6 by 11 metres, a room for feeling with sound effects (room for listening) of 6 by 11 metres, a corridor of 18 by 2.5 metres with different materials and a ball pond room of 6 by 11 metres. The centre is accessible through a wide door. Once through that door you come into the corridor with two light effect floors and a foot carillon in between. Opposite the carillon is a combined warm and cold air scented wall. In the corridor one can also find a scented tube stand, different touch boards and feel boxes. In the corner is a mirror wall which, combined with the light floor, supplies a vast offer of effects. From the corridor you can enter into all the other rooms.

The projector room is completely covered in white soft flooring. In there is an embedded sort of an island with three bubble units. The floor, ceilings and walls are white too. Liquid-, Slide- and film projectors, mirrored glass balls, soap bubble machine can be served with a remote control.

The room for feeling also has a soft floor. There are touch boards on the walls as well. At different places there are soft touch objects one can crawl through.

There is a range of "touch curtains" hanging on a rail. The windows have coloured Perspex glasses.

In the studio the importance lies with the combination of light and sound. In a wall across the room is a light screen installed, that translates every sound into a light picture. In front of the distorted mirror, the light organ

and the drapes there is a vibrating floor that invites one to feel the different sounds. An echo sound system adds an extra dimension to the room. With the help of a CD player music can be played. If one uses cordless headphones, the great effect can be enjoyed even more, it feels like being in a huge grotto. A seating element provides the comfort needed.

A soft border along the walls surrounds the ball pond. It serves as seating or lying down area as well as padded protection between wall and balls. On the ceiling above the ball pond is a semi-circular mirror and along the walls are mirrors too. One can keep occupied by simply observing oneself and the depth effect of the room is increased. Sound and light apparatus are as far as possible based in a separate central room, to avoid, visitors handling them wrongly unintentionally. That measure was also essential for fire safety.

Experts have installed the entire Snoezelen complex in De Hartenberg. That was necessary to meet the terms of fire safety, servicing and maintenance etc. Meanwhile the higher investment costs have been proven to be justified

The cleaning takes up relatively little time; only the ball pond requires half a day of maintenance once a fortnight. Defects are rare up to date, the biggest cost factor as ever is the regular needed change of projector and light bulbs.

There is a huge interest even beyond the De Hartenberg Centre. At certain times groups from other institutions have the chance to come to us to practice Snoezelen.

Many non-disabled children make use of our Snoezelen rooms too, for a birthday party for example.

### **Description of the Snoezelen Room in De Hartenberg Centre**

There are different possibilities to equip a Snoezelen room:

1. Create a room to serve all the senses
2. Divide the room in such a way that different areas are created in which one or two senses can be addressed
3. Have several rooms available in which one sense at a time can be addressed.

Such divisions depend on the space availability in the institution rather than the content of ideas.

In De Hartenberg there are three rooms and a corridor to link them available but one does only talk about “the Snoezelen room”. One can expect that in each of the rooms a certain atmosphere will be present or rather a certain area of perception will be addressed. An exact separation between the senses is not given and can hardly be realized anyway. But that is not the aim, the aim is the elimination of unnecessary, unpleasant and distracting stimuli

To get a better picture, I will describe the rooms’ one after the other with their special possibilities and difficulties. A few overlaps cannot be avoided.

### **Ball Pond**

In the 6 by 11 metres big room, painted yellow, are two ball ponds. Surrounded by a 70 centimetre high yellow and red border of soft play material. There are approximately 60 000 coloured balls each with a diameter of 6 centimetre. One can lie on top of the balls, bury oneself or other people in them completely, throw the balls, feel them individually and play with them. A slow approach to the unknown situation is possible since there is enough free space in the entrance area (also important for wheelchair access) to simply watch the ball pond and those already present. It is possible to walk around the pond on the 50 centimetre wide edge. It is also possible to approach the balls by simply sitting on that edge and allowing the legs to dangle and play with a few balls. To glide into the balls is unusual since they will move in to all different directions and one will sink in faster the more one moves. Many residents have fun; others feel frightened that the ground underneath their bodies is so uncertain. Experiences made here are of a more tactile nature.

The PVC mirrors on the walls as well as the semi-circled mirror on the ceiling above the balls offer additional stimuli.

One can observe oneself in the mirror on the ceiling while lying on the balls and throw the balls towards the mirror. They will seem to get bigger the closer they get to the mirror.

A passive experience of the situation as well as all sorts of playing activities, are possible in this room.

### **The white room**

The room measures approximately 6 by 11 metres, is 5.5 metres high and completely white.

Here mainly visual stimuli in the form of light effects are offered. Due to the white interior the room is suitable as a projector screen for:

### **Slides**

Mainly pictures of nature

### **Films**

Due to the variety of colours, slow camera movements and slow movements of the animals, films by Jacques Cousteau about the underwater world without any sound are very suitable.

### **Liquid projectors**

The apparatus produces a round, slowly rotating picture, in which multi coloured objects shaped like water drops float into one another

All these projectors are kept in a little room on the first floor of the building and point into the white room through a window in such a way, that they can be projected onto three walls. One feels like standing in the middle of the play of colours and lights.

Further light effects are achieved by illuminating rotating mirror balls as well as bubble units and fibre lights. There is also a device to produce soap bubbles.

### **Bubble units**

Bubble units are perspex tubes filled with water; underneath each one is an air pump and a lighting fixture attached.

With the incoming air, air bubbles rise constantly and are illuminated by a light which has a multicoloured disc and changes colour every 15 seconds.

There are three of these units in the room, all of them embedded on a hexagonal stage. Two of the tubes are 1,80 metres high and the third one is 2,30 metres. They each have a diameter of 20 centimetres and can be switched on individually or in combination.

### **Mirror balls**

There are two balls of different sizes, which are covered in little mirror tiles and rotate with the help of a little engine. Spotlights illuminate them.

This creates the effect of slowly moving light spots over wall and ceiling, which can constantly change their colour because of the multi-coloured ro-

tating disc moving in front of the light. These balls are also known as Disco balls.

### **Soap bubble machine**

Soap bubbles are blown into the room automatically.

The described apparatus and lights can be switched on and off via a control panel, using a remote control. The fibre lights can be switched on and off using the switch beside the lamps.

By choosing varied combinations of the activities one can create all different effects.

In the white room half way up the wall are other objects attached to adjustable rails, which serve the purpose of decoration as well as play, for example big wooden birds which swing once someone pulls on the string. There are also long PVC tubes filled with air hanging down almost touching the floor.

The entire floor is covered in a soft play material. Two of these mattresses close to the door can be removed to allow wheelchair access if one does not want to lift residents out of their wheelchairs.

One thick air filled PVC tube is moving on the floor along three of the walls to allow a comfortable position that makes it easier to observe the light effects on the walls.

The room is impressive with its height and white interior alone and is very popular with the group leaders and residents. The different light effects change by colours and movements never get boring and invite you to dream and simply switch off. In this room the feeling to be in the middle of a dream world is the strongest.

Similar to the ball pond here the different demands of the individual visitor can be met too. The fascinating atmosphere alone does have the effect on people to feel very relaxed and invites you to just watch and be amazed. Some people only react to strong light and dark contrasts, which can be created by switching on and off several devices at the same time.

Others just walk about the room and touch the different air tubes hanging down from the ceiling, playing with them or approaching the lights and bubble units to investigate those. Some do even understand the link between remote control and light effects and try to experiment with them.

The devices used in that room like bubble units, liquid projectors and mirror balls are also used for Snoezelen in other institutions, since they are

very stimulating. In the meantime they are a permanent part of a typical Snoezelen atmosphere.

### **Anteroom**

Between the corridor and the white room is a small anteroom (2 by 2 metres). In the centre a curtain of phosphorescing PVC strings is hanging down as well as a perspex mirror that is put up the wall with the same strings attached to it. By illuminating them with black light they shine in very groovy colours.

These coloured strings are for the non-disabled a rather optical, nice decoration whereby many of our visitors often grab them and play with them shaking them back and forth, to hear the rustling noise, put them around themselves or put them into their mouth etc. The thick knotted woolly ropes in the corridor are treated in a similar way.

### **Tactile and Auditory room**

This room is covered in soft play material apart from one space. In there is a waterbed with a sound floor embedded. The water temperature can be regulated. The waterbed is the most attractive and most used object in the room. Attached to the walls are boards covered in all different materials and furs. They offer various tactile experiences. There is also sort of an igloo made of soft play material, one can crawl into.

Hanging down from the ceiling and almost touching the floor are various soft and sound toys, attached to elastic rubber strings. The strings are meant to make it easier for the disabled visitors to reach the toys even if they let go of them once in a while. There are more soft toys on the floor. The earlier mentioned wooden birds can be found here as well hanging from the ceiling.

Many different coloured ceiling lights, whose brightness can be regulated with a dimmer, provide light.

In this room opening the shutters can let in daylight. The window glasses are green, red and yellow and create a different view into the outside world. For many people the suddenly changing intensity of the daylight is already a variation of stimuli they perceive and clearly react to. The contrast of light makes one aware of how used one was to the dimmed warm light and the atmosphere of cosy and safety, once the room turns bright all of a sudden.

In the same room 3 by 4 metres a vibrating floor is built in and linked with a screen. The combination makes a conscious experience of music and sounds and the playful use possible.



The lights of a big light organ are linked with the sound system and pointed at the perspex mirrors on the wall, which then project lights onto a screen. The observer can see the music matching light reflexes on that screen which measures approximately 3 by 5,50 metres.

The light organ can also be linked with an echo-microphone so that the light effects can be triggered by one's own voice, musical instruments or other sounds, which then can be heard strongly delayed. The acoustic impression when using headphones is extremely fascinating. For residents who perceive very slowly, the delayed playback of their own voice is quite an experience. Once they realise the link between their own sounds and the light effects, they become very motivated to make new noises while under normal circumstances not everybody would have been up for that.

In the room a vibrating floor is built that swings in such a way that the music can not only be heard and seen through the light effects but the vibrations can also be felt with the entire body.

### **The corridor**

The corridor does link all the rooms described so far and offers many more interesting perceptions. For example the biggest part is made of a light floor. The perspex surface is set on wooden planks set out in a grid format. Each square of the grid contains a coloured light, which is linked with the sound system and reacts like a light organ to rhythm and melody.

Constantly changing combinations of the lights first of all creates very interesting light effects and secondly heats the floor in the different areas to give a warm feeling.

In the middle of the aisle is the carillon. It is made of nine 40 by 40 cm PVC tiles, which are embedded in the floor. Stepping on one of the tiles activates a bell to ring and a light to flash. Bells and lights are located in a light panel on the wall and can also be activated by touching this light panel.

There are also touch boards with sponges, brushes and other materials as well as a PVC mirror in one corner. As already mentioned, thick knotted woolly ropes are hanging down from the ceiling.

In the corridor, besides these visual, auditory and tactile stimuli there are also "sniff snakes" to stimulate the sense of smell. These are two rotating stands. Each of them has a wooden board attached to it with coloured P-traps from pipe work fixed onto them. Attached to those are elastic PVC tubes, similar to those used for cooker hoods. A concentrated scent will be placed on the wooden board, which can be smelled intensely through the tubes. Due to the flexibility of the tubes it is possible to reach different posi-

tions to allow wheel chair users and tall people the same comfortable position to make use of the activity.

The equipment of the described rooms is only one of many other Snoezelen rooms.

The devices, materials and playing materials that will be the chosen equipment for a Snoezelen room depends on the individual but also from financial resources and spatial possibilities.

During summer fairs at De Hartenberg for example a water-organ was hired, which was very attractive but much too expensive to purchase for a permanent room.

Some ideas like putting up large pieces of cloth in the tactile room had to be scrapped due to fire safety reasons. Others could not be realized due to space restrictions. It is obvious that there are no activities at all for the sense of taste. In De Hartenberg we haven't had very pleasant experiences during our summer fairs. Hygiene is a big problem and most of the residents do not try out food consciously but stuff themselves with everything. It was therefore decided against that for educational as well as organizational reasons in the permanent Snoezelen room. But in other institutions one can find offers like that. There a member of staff will make food available just before a Snoezelen session. It has happened in individual cases that disabled people have stuffed themselves with the food until they have felt sick but it is of course a question of the quality of company.

Thank you very much for your attention.

## PUBLICATIONS are available during the conference



**Book: Snoezelen-materials homemade**, price: € 29,50 excl. shipping costs, 228 pages including CD-Rom

CD-rom: PowerPoint presentations:

- full colour prints of all the Snoezelen equipment.
- A virtual tour around the Snoezelen Centre of De Hartenberg, including numerous photographs and floor plans
- A virtual tour around the compound of the Hartenberg Centre.
- Snoezelen materials homemade, construction manuals, tips and practice related information.
- Snoezelen with people with dementia, a virtual tour around a nursing home
- Snoezelen in nature, information on how to create a sensory garden
- Snoezelen alternatives: Snoezelen in a special Riding School, Snoezelen in the swimming pool

**Index of the book**

Fundamental philosophy of Snoezelen – historical background, planning and concept

History of the care of the mentally handicapped in the Netherlands

The development of Snoezelen

The centre De Hartenberg

Neurological bases

The Snoezelen-rooms in the centre De Hartenberg

Practice in the Snoezelen-rooms in the centre De Hartenberg in Ede, the Netherlands

Snoezelen materials homemade

Snoezelen in everyday practice

A Snoezelen-room in the residential setting

A central Snoezelen-room outside the residential setting

A tactile room; tactile stimulation

An aural room: audible stimulation

A visual room, visual stimulation

Olfactory stimulation

The swimming pool as a Snoezelen-room

The sensory garden

Music and its applications within Snoezelen

Bibliography and music list

List of Snoezelen-materials /suppliers of Snoezelen equipments

### Snoezelen in professional training



**2 DVD: Snoezelen – another world**, 180 min., subtitle English. German voice over / PAL system

1. Snoezelen – another world
2. A virtual tour around the Snoezelen Complex of the Centre De Hartenberg
3. Snoezelen in everyday practice
4. Snoezelen – a new approach for people with senile dementia
5. The swimming pool as a Snoezelen-room
6. Snoezelen in a special Riding School

1 CD-Rom: Snoezelen materials homemade

1. Do it yourself ideas to build Snoezelen equipment.
2. PowerPoint presentations

**Price: € 29,50, excl. shipping costs**

You can order the book and/or 2 DVD + 1 CD-Rom (see above)

**Ulla-Maija Grace**

MIFA, IScB, Founder/Owner,  
Director and principal Aromatica Oy,  
Aromatica Wellness Ltd, Aromatherapy College of Finland, Finland  
[www.aromatica.fi](http://www.aromatica.fi)

## The use of essential oils aroma as environmental or personal application for enhancing mood and wellbeing

The sense of smell is perhaps the least appreciated of our senses even though it affects our daily life very profoundly. It influences our moods, emotions and body functions powerfully

I hope be able to inspire the use of natural essential oils in connection with your existing care programmes to stimulate, calm and to enhance the experiences of your clients. Another important aim is to bring pleasure into your work and reduce the stresses in the daily routines for you and your clients.

Over the decades of working with the essential oils I have marvelled at the wonderful benefits that they bring to human wellbeing. After all they do have a definite influence on our emotions and mental and physical tone. To demonstrate this in practice I will introduce some essential oils during the presentation.

We shall also look at the sense of smell and its meaning and functions in our daily lives.

### Contents;

1. An example of multisensory work in the care of memory impaired elderly patients.
2. What areas of MSE work could benefit from using aromas
3. Why choose essential oils instead of synthetic aromas

4. About the sense of smell
5. Examples of Physical and psychological benefits
6. Who should not use essential oils

### **1. An example of multisensory work in the care of memory impaired elderly patients.**

The results of the work, “Reducing anxiety and restlessness in elderly care patients” study of institutionalised care of the elderly. were first presented in Japan at the 1st International Congress of Aromatherapy by the Japanese Society of Aromatherapy.

The roots of this study go back to 2002 when the staff at Kaarinakoti were trained in the use of aromatherapy. They had already been “stung by the alternative care bug”, when visiting in Holland and learned about the Snoezelen method.

The materials for the pilot and the study were collected between 2010 and the spring of 2012 at Units 3C and 3D Kaskenlinna Hospital, Turku and in the spring 2012 at the Unit for Memory Impaired Patients at Kaarina Elderly Care Home

#### **The purpose and aims of the study**

The purpose of the study was to find out whether using Aromatica-Wellness treatments for memory impaired patients would have beneficial effects in reducing their anxiety and restlessness. Our aim was to assist in the improvement of physical and mental wellbeing of the clients

#### **The pilot and the study**

The pilot was started 2010, at new Geriatric Care Hospital, Turku at the long-term patients ward. The newly built hospital had inspired the change of the style of the elderly care and the start of wellness type treatments. The pilot study was supported and given the go ahead by the Head Doctor, Tapio Rajala and the work at the ward was co-ordinated by nurse Ann-Mari Lindgren, who had studied aromatherapy in the past.

The staff was trained to give the treatments and those who took part in the pilot were very enthusiastic about the whole process and expressed their feelings through the following quotes;

“A mindful, rewarding and a positive experience”, “Especially good for the patients, who are not able take part in the recreational programmes of the ward”, “Good gentle treatment for the dying”, “Simple and economical for long term care”, “Relatives pleased about this new approach”.

### **The study**

The total number of patients in the study, including the pilot, was 45 men and women, 71–95 years of age. They suffered from the typical physical health concerns common for the elderly: heart and circulatory problems, high blood pressure, reduced kidney function, diabetes and mental health and memory conditions such as; Alzheimer, problems related to stroke, epilepsy, schizophrenia, and dementia.

### **The treatments given, 213 treatments in all**

The treatment was a 10–15 minute hand and lower arm massage using one of two oil blends. Blend 1: Harmony and delight – to reduce restlessness and anxiety and lift from apathy. Blend 2: Fibromix to calm, assist in sleep, to relieve the experience of pain.

These blends have been used in clinic, therapeutic, and spa treatments in Finland, Estonia, and Japan for over 10 years.



### Data collection document

The “reading” of the facial expression was done immediately before and after the treatment.

**Lähtötilanne**

Hoitosarjan alkaessa \_\_\_\_\_

Kipu lääkityksen määriä / pv \_\_\_\_\_

Tunteet / mieliala \_\_\_\_\_

Huomioita \_\_\_\_\_

Hoitto pv  
klytetty öljy \_\_\_\_\_

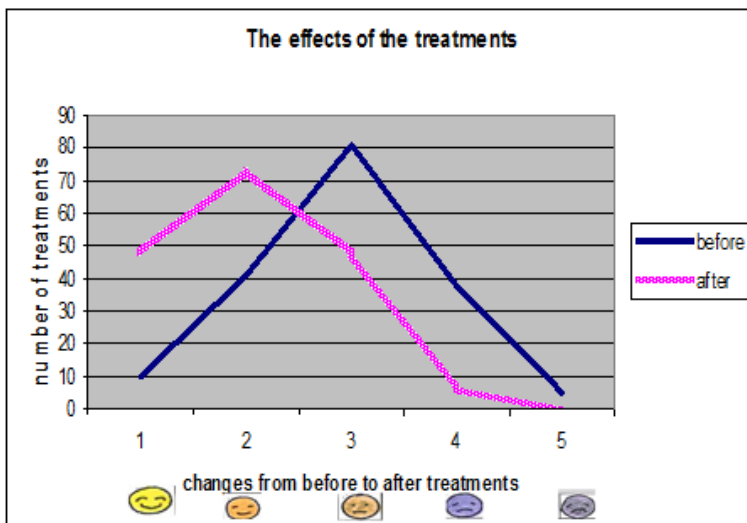
Ennen hoitoa  
Tunteet / mieliala

Kivun voimakkuuden tuntemus -5 4 3 2 1 0 1 2 3 4 5+ \_\_\_\_\_

Hoidon jälkeen  
Tunteet / mieliala

Kivun voimakkuuden tuntemus -5 4 3 2 1 0 1 2 3 4 5+ \_\_\_\_\_

The visual graphics data of the change in the moods as read from the facial expressions



### **The effects noticed in the clients by the staff giving the treatments**

- Remembering the use of their hands
- Teaching the therapist how to massage
- Massaging the hands of the therapist
- Massaging their own hands
- “These hands have worked hard”
- Remembering the treatment received yesterday.

### **How do the treatments work?**

The results of the study has to be looked at as an effect of the whole treatment which has at least four separate elements to be considered. These elements are:

1. The massage, touch and the physical effect of the oils
2. The effect of the aroma
3. Triggering memories – the limbic area
4. The interaction between the client and the therapist

### **An overview of the effects of the treatments**

An overall improvement by calming, reducing anxiety and lifting apathy.

Can be included in the daily routines of the ward incomplete sentence

A positive experience for the staff – reducing feelings of stress, giving a moment of concentrated contact with the client, a “breathing space”.

Economical, only 1 – 1,5 ml of oil / treatment.

Possible saving in the expense of medication.

### **Changes noticed in the clients**

Bringing back *coherence of speech* through verbalizing memories.

Activating the *use of hands*.

Possible awakening the *working memory* (concentration? sight of the bottles? the aroma?).

Visual *focusing and concentration*.

*Reduction of excessive motor behaviour*.

## **2. What areas of MSE work could benefit from using aromas.**

I personally feel that all areas of multisensory work would benefit from using the essential oils in some form or other and for various purposes. How to use them would depend on the receiver. For the purpose of this presentation we will look at a few easy to use approaches that would benefit from essential oils.

*Occupational therapy, exercise, movement or massage*

Using the oils stimulate the mind and to provide motivation. Use the oil in the room to prior to bringing the client into the room to awaken or calm them before the activity. The choice of oil depends on the activity and the clients' needs.

The oils could be aimed to activate physically by using stimulating essential oils, to stimulate mentally or to calm or reduce anxiety.

Use the same oil each time for the same activity. After a while the same oil can be used before the activity to inform what will be happening.

*Reading or telling stories* – Using aroma to create an atmosphere of the story e.g. forest (spruce) or flower (rose) smells. These smells could then also be connected to the actual situation out of doors during the activity, finding the same smells and linking it to the place or the plant.

*Tactile stimulation*. Touching makes you whole and heals. It is important how we touch – oxytocin secretion will increase during touch therapy. If you use the same aroma each time when using touch, eventually only the aroma will be needed to trigger the start of the same feeling of relaxation, calm etc. Oxytocin acts in the hippocampus, at the limbic area of the brain that is involved in memory and cognition. It has also been found that increases the reliability of stimulated impulses such as attention to spoken word.

Many complementary therapies use touch to release physical tension and to induce relaxation. Touch has also a role in releasing old emotions locked up in the tissues of the body mind.

*Enjoyment of food and improving digestion.*

Lemon is a well-known digestive stimulant and also a mood enhancer. Use before and during mealtimes

*Use aromas for visually impaired to recognize places and rooms.*

Each room has its own aroma, which helps to associate with what is happening.

*Using aroma to give rhythm to the day*

Going into the client's room in the morning with a refreshing aroma. This technique will refresh the atmosphere and make it more pleasurable for the staff and awaken the client.

Eventually the aroma will be connected with the fact that now is the time to get up.

In the same way calming aroma can be used in the evening and will also become associated with that part of the day.

This kind of use of the aromas will set a rhythm to the day and bring familiarity to the activities of the day and make the days more peaceful.

### **3. Why choose essential oils instead of synthetic aromas**

A good quality organic essential oil has an aroma that our “old, historical” nose and body can recognize. Many of the aromas are still, in some form or another part of our daily lives in foods. The body knows how to use them. They do not leave any toxic residues into our metabolism. The metabolism eliminates them through respiration, sweating, urine or faeces. Synthetic chemicals of all kinds, whether in medication, toothpaste, or as flavours preservatives and colours in our foods are not totally eliminated from our body systems. Parts of these substances are “stored” particularly by the liver and can in the long term cause “malfunctioning” in our normal metabolism. Also synthetic aromas do not have the same molecular structure as the natural counterpart and our sense of smell does not respond to these synthetic substances in the same way as they do to the pure natural aroma.

## 4. About the sense of smell

Good, bad or indifferent aromas will have an effect on our daily lives.

Our sense of smell has a direct link with the limbic area, the emotional and memory centre of our brain. This area is the oldest part of our brain, beyond the control of the thalamus or the cortex. It is called the limbic area also the reptilian brain and the olfactory brain.

The limbic area is made up of several parts of the brain; the amygdala vital to self-preservation, the frontal lobe for social skills and empathy, and the complete limbic area to bring about the memory/emotion linked experience brought about by the aromas.

In our daily lives the sense of smell warns us of danger (smoke), telling of the quality of our food, it also plays a part on our partner selection.

### 4.1. Examples of Physical and psychological benefits of using aromas

We tie up our emotional experiences into the muscles and tissues of the body causing discomfort and pain. Physical benefits with massaging essential oil blends for releasing cramps and reducing the experience pain will then also release the emotional tensions and bringing about the emotional benefits.

Just using the aromas the limbic area reacts by sending messages through different parts of our body and brain to release the appropriate molecules e.g. to calm the stresses and tensions of the mind and through releasing these tensions once again allow the physical relaxation to occur.

These changes are measurable objectively with physiological measures (e.g. blood pressure) and subjectively as emotions.

## 5. Who should not use essential oils

Basically as the essential oils are from our natural environment and life and there are not many reasons why they should not be suitable for everyone.

Using essential oils as aromas in the recommended quantities will be suitable for all. But of course there are exceptions; if clients have an allergy to a plant or molecule of that oil – you should not use the oil from that plant. If someone dislikes an aroma – it is an indication that it, for whatever reason, is not suitable for them.

For physical application I recommend reliable, high quality blends and in those the individual (possibly having some contraindications) essential oils are not present in such high quantities as to have any adverse effects.

**I want to leave you with the delightful aroma** of the Harmony and Delight oil that was used for the earlier mentioned study.

Thank you for your interest!

**Marco Kärkkäinen**

psychotherapist, family therapist,  
musician Founder, CEO/ Neurosonic Finland Ltd, Finland  
[www.neurosonic.fi](http://www.neurosonic.fi)

## Neurosonics – low frequency treatments

The Neurosonic low frequency method reduces the effects of muscular tensions and pain by directing low frequency vibrations to the whole body or only to one part. The used frequency band is safe and within a natural range, consequently there are no side effects. The vibrations create a resonance in the body tissue and fluids. The vibrations are felt in the whole body which is extremely relaxing and even affects your metabolism positively resulting in deep relaxation and recovery from physical and psychic stress.

### Relaxation is the first step towards your well-being

Did you know that your body is in a relaxed state and your bodily functions are more balanced, your performance and your focus are better and your sleep is deeper? Relaxing on a regular basis means you prevent stress-related illnesses and you also will recover faster from the symptoms.



Neurosonic Divan and Chair



**Henrik Svarrer Larsen**

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## Interactive Snoezelen – design processes as part of pedagogical developments

### More info

#### CERTEC:

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#### Publications:

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<http://www.lu.se/lucat/user/da85ffb637005d0f2fd5ba73dfb6ba4>

#### Project:

<http://sid.desiign.org/>





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## Social pedagogy... colours... gentle teaching

Snoezelen has been an activity, practiced since the seventies.

Many have discussed what it is all about. Is it leisure? Teaching Or therapy?

Three years ago a group of people used three days to (re)define snoezelen, and came to the conclusion that snoezelen is all this, if the conditions are there.

In my speech I will underline some aspects of the new definition.

Personally I have always been interested in the importance of a human relationship between the people served, and the people serving, also in the Snoezelen room. I will use some of the thoughts formulated by Hegel and Honneth to make some interpretations of their thoughts in the very modern environments. The didactic triangle is in my view the base for development.

As an example I will talk a little about the influence of the use of colours and coloured light.



# ARTICLES



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## **A colour tent 'little room' as an optimal and meaningful sensory environment for children with multiple disabilities and cerebral visual impairment and people with complex needs**

### **Abstract**

The use of bright coloured tents can provide an optimal 'little room' visual experience for children with severe cerebral visual impairment. It can open a door to the mind, which gives pleasure and a meaningful sensory experience to increase awareness and engagement. This paper will explore the impact of these tents upon two young people, over a period of two years, who have multiple disabilities and visual impairment and how individual programmes were planned from this approach. The experience empowered their lives as they began to increase their visual awareness as never recognised before and their attention to their world enlarged as further sensory experience developed. Reference will be made to a paper co-authored with Professor Gordon Dutton who is a leading Ophthalmologist in the research of cerebral visual impairment who considers that these tents are valuable in promoting visual awareness in children with profound visual impairment. As co-authors we consider that the value of these tents for children with brain damage due to cerebral palsy is immense, and that this information needs to be disseminated and shared for the benefit of others with complex health issues and needs as a method to promote quality of life and enable learning.

### **Introduction: Overcoming barriers**

Overstimulation of noise clutter and visual clutter can be a major barrier to experiencing pleasure and learning and a highly unpleasant sensory experience for anyone with complex needs. Whereas, an environment which is designed around the person and their responses is the key to unlock the

door to communication and the means to overcome barriers of overstimulation or stimuli which is not appropriate for the individual. The tent can provide a visual stimulus which has been minimised by cutting out extraneous sounds and providing one uniform colour, it is a colour tunnel, which is distraction free and provides a one colour focus. It is a tent to involve child and therapist in interaction and/ or the means to give a child some quiet time to explore with vision and develop awareness and attention in a space that appears to create a sense of pleasure, security and calm.

### **How can a colour tent be produced:**

The simplest method is the hand held tent which can surround a child's head and envelope both child and therapist. All that is required are sheets of fluorescent or brightly coloured material of one colour.

A frame tent can be created by tying or clipping large sheets of material onto a floor standing frame, with these tents it is possible to place a wheelchair under the material.

A hoop tent with material sewn or clipped onto the hoop structure can be secured by a hook from the ceiling as is the case with projector nets.

Net and material tents for light and colour effects.

These tents are also valuable in creating a focus quiet distraction free environment, such as using projection nets with slow moving colour wheels.

Material can be hooked to a ceiling and hung as sheets to form a tent and the slow moving colour wheel can be used as a light and colour effect visual experience.

### **Why are these tents valuable?**

For children with severe brain damage due to cerebral palsy the tent provides a valuable resource in observing visual responses often seen for the first time. In a paper co-authored with Professor Gordon Dutton which will be published in the British Journal of Visual Impairment, we discuss the possibility of Balint 'Syndrome' as the underlying cause of severe visual impairment as experienced by many children with profound disabilities, the children who benefitted from the colour tent experience had a profound impairment in seeing more than one or two items at once (simultanagnosia) due to presumed brain damage related to cerebral palsy. The tent effect is to cut out distractions in a way which enables limited visual function to be used. Professor Dutton explains that the impairment of primary visual functions leads to low visual acuities, low contrast sensitivities and limited

visual fields and damage to higher functions can lead to impaired recognition and limits to the use of vision to guide body movements. In the case of the two case studies discussed in this paper the severity of the children's visual impairments are such that they have been registered as blind and in their previous educational experience had not been offered any meaningful experience of visual stimuli. Children with severe cerebral visual impairment may experience sensory overload through excessive visual and auditory stimulation and then their response maybe to either shut down or become distressed. The positive effects and the outcomes of the use of colour tents, which created focussed sensory sessions will be explored in two case studies.

### **Ali's case study**

Ali is 9 years of age and she has profound quadriplegic cerebral palsy and is registered blind. When Ali joined school she did not shown any visual awareness to the light and dark contrast equipment options in the multi-sensory room and was disinterested in visual stimuli. Ali greatly disliked noisy and busy environments and her response to these would be distress and engagement in self stimulators behaviours of banging her head violently with her fists and crying.

### **Ali's story**

When I first came to class I was unhappy and confused with the noises that I did not understand and in a space which seemed big and without meaning for me. I was surprised when I found a whole new experience that I had never known before as I discovered a lovely place where the noises disappeared and I felt safe and there seemed to be something interesting that I could see surrounding me and that was new to me. I liked this place it helped me feel calm and happy and I had fun listening to people sing my name and sing poems to me. I found they liked my happy vocalisations and we could chat together with my sounds. I also had time to explore by myself without anyone interfering with me and I liked finding objects which made interesting sounds which were in my special little room.

When Ali first experienced a hand held bright orange colour tent her response was to immediately calm from her distress as she smiled and gazed around at the colour tent. The tent had the effect of creating a calm focussed environment in the classroom. Ali's response from not showing any visual awareness changed to completely aware and attending to the tent and colour as she gazed with pleasure and concentration for several minutes at a time, for periods of up to twenty minutes. Ali's sensory visual threshold was meet and crossed as her capacity to become visually aware was awoken and facilitated by the tent 'little room' effect.

After a period of a few months of using the tent Ali changed from her use of shouting and biting her hand to using gentle sounds and claps in turn taking both within the tent and without it. The periods of time she uses the tent have decreased over the two years of monitoring as she appears to feel secure in other environments providing they are not crowded or noisy. Ali still uses the tent for some moments of calm when she is tired or unwell. The outcomes from using the colour tent are positive as Ali has increased her willingness to interact with others and explore the environment outside the tent and she has begun to use her visual awareness with one piece of equipment in the multisensory room; in keeping with the assessment of her visual awareness and sensory responses in requiring one item of appropriate stimulus at a time. Ali has discovered that it is possible for her to work slowly and quietly and the colour tent has provided a meaningful experience.

### **Tom's case study**

Tom is 17 years of age and has profound quadriplegic cerebral palsy with cerebral visual impairment and he is registered blind. Past education reports state that Tom very rarely lifted his head to use his limited vision. This was partially considered to be caused through his poor head control. However, with the use of colour tents Tom improved his head control dramatically with and without the tent as he is motivated to discover new found visual stimuli. This has had positive outcomes in his engagement with others senses, such as touch, providing the stimulus is one thing at a time and time allowed for Tom to respond.

### **Tom's story**

I find it tiring to look up especially when there is no reason to lift my head. I have found a new experience which I enjoy and people comment on my smile as being in a colour tent is one of my favourite activities. I have made choices of my favourite colours and my most favourite colour is orange. I like to move my head to gaze around at the colour and I can't help myself but giggle at this new found pleasure. I have also found that it's good to keep my head up to use my vocalisations to chat to people who come close to me so I know they are talking to me. The multisensory room interests me now as I find I can track colours and light movement. I do not like being offered more than one thing at a time as this is confusing, but when I have time to explore I really concentrate on reaching out to touch sound objects which I can have on my tent frame. My favourite time is when I am free to look at the colour surrounding me then I leave that activity and explore a new one of reaching out to touch an interesting object, this is not an easy task for me as my arms are quite stiff but I do it and feel proud as I smile and vocalise to let people know what I have achieved.

The fluorescent orange colour material was the first hand held tent experience for Tom. This met and crossed his visual awareness threshold as he became attentive and motivated to lift his head to look around at the colour that surrounded him. From this engagement with a motivating stimulus a sensory programme was planned for Tom to have regular tent sessions. He used the tent frame in a daily routine for 15–20 minutes at a time in which he remained involved with the pleasure of using his limited vision. Even when tired Tom appeared to enjoy the tent as it had the effect of reviving his interest in sitting upright in his wheelchair to use his vision and his facial expressions and smiles clearly demonstrated the value of this experience. The outcome after only a few weeks was that Tom began to keep his head up with or without the tent and in different environments. He was eager to join in with his helper in using his vocalisations in interaction and began to demonstrate visual awareness and attention in using a communication aid to say hello which he located when it was 30 cms from his line of vision. Tom widened his sensory experiences to explore and locate a tambourine which was placed on the tent frame to enable him to reach with his limited arm movement and he was able to track its movement from right to midline and a little to the left. This was achieved with determined concentration and total involvement. He also used his vision to scan the light and colour effects in the multisensory room and in the projector tent area in the classroom.

Tom remains able to focus upon single items within the tent, but not more, indicating that he does not have the ability to experience more than one visual stimulus at a time, or profound simultanagnosia. Tom appears to enjoy being left alone in silence to explore his tent and find single items that he recognises such as a red tambourine. Following on from using a colour tent Tom has gained a better posture and is able to hold his head up to scan his surroundings, as well as being more involved in interaction with others. Even after a long period of ill health when Tom returned to school he responded with a vocalisation of delight and recognition when given his favourite orange tent.

## Discussion

### Neurons that fire together wire together

With reference to this famous quote from neuroscience it is possible to see the application of this statement in the evidence from the two children's experience in the case studies. The children had severely limited visual awareness which evolved from their tent experience and with the use of colour, to new responses of visual awareness and attention. It appears that the bright coloured material used to create the tents really motivated the children with multiple disabilities and cerebral visual impairment. The children were motivated in expressing their preferences when offered one colour choice at a time and the tunnel effect of the tent appeared to cre-

ate a pure experience allowing and enabling visual engagement. Providing that the sensory experience is given slowly and time given for an individual to find their own level of response, then further sensory experience can be added one at a time. These could be the sound of one word which is pronounced slowly with varying pitch and tone, or massage, reaching out to touch a sound object or with a music cue. In this way it is possible to find other sensory thresholds and cross these to create new and meaningful learning experiences related to the child and their capabilities and interests.

## Discussion

The brain injury of children with multiple disabilities and cerebral visual impairment limits what can be seen and visual guidance of movement is profoundly impaired. Therefore, the tent effect provides a novel way of stimulating and assessing functional vision. The tent eliminates distractions and being surrounded by colour acts as a motivator to children with complex needs to use their potential vision for the first time.

As stated by Tom's parents:

*"It's beyond our wildest dreams that the door to our son's mind has been unlocked, and you can now see what we know he is capable of."*

How many more people with severe brain damage could benefit from this simple tent 'little room' experience?

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Ali in hand held tent (photo Suzanne Little)



Tom in frame tent (photo Suzanne Little)



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## **BREATH Pathway to personal and professional success: An exploration and application of mindfulness and relaxation techniques utilising Multisensory Environments**

### **Abstract**

Technological advances and the trends toward multi-tasking have made a significant impact on quality of lives and levels of productivity of individuals in both their personal and professional lives. This paper will explore those impacts and will provide strategies for the elimination of the stress associated with these trends through the introduction of a conceptual model, The BREATH Pathway. This approach provides a process, which can aide in the recognition and elimination of stressors in our lives. The pathway involves Breathing, Relaxation, Environment, Awareness, Thankfulness and/or gratitude, and Happiness. Exploration and application of techniques such as breath awareness and control, mindfulness, relaxation, and gratitude will be addressed. Particular attention will be placed on how to create multi-sensory environments that elicit the relaxation response, promote and support mindfulness, and provide therapeutic value to consumers of professional services.

### **Introduction: The Power of Breath!**

To breathe is to live. Few can dispute this fact. We all breathe; however, it is obvious that although all people rely on breathing they experience life in many different ways. Some people embrace life with energy and enthusiasm while others are wrought with anxiety, worry, tension and low energy. What is the difference between these people? Does the way they breath play a role in how they respond to life and living?

These questions have been the subject of much discussion, particularly in today's society as individuals are faced with technological advances that are designed to make our lives easier, but which in many cases, place greater demands on them. Individuals are expected to do more in less time and with a greater sense of immediacy. Many people have difficulty keeping up with these face-paced societal and performance expectations and their health and well-being begins to suffer. When health and well-being are impacted, so is an individual's level of productivity in their personal as well as professional lives. Productivity, in this context, does not only relate to the work environment but also to the development of meaningful personal relationships and the ability to contribute to the community in meaningful and fulfilling ways.

The BREATH Pathway approach provides a conceptual model, which can aide in the recognition and elimination of stressors and negative influences in our lives. The pathway involves the exploration and application of the constructs of Breathing, Responsibility, Environment, Awareness, Thankfulness, and Happiness. The purpose of this paper is to provide an in depth analysis of the BREATH Pathway and to explore various techniques that can be utilised to eliminate the negative impacts of the world in which we live. Particular attention will be placed on how to create multi-sensory environments that elicit the relaxation response, promote and support mindfulness, and provide therapeutic value to consumers of professional services.

## **Breath**

Breath is the essence of life. It is the one commonality that we all share. We all breathe. But few individuals recognise the power of their breath and the way that it can enhance the quality of their lives and relationships or interfere with the way they respond to stressful situations. Stress includes the physical, mental and emotional responses to internal and external stimulation. When an individual faces a stressful situation their autonomic nervous system (ANS) responds by eliciting the stress or flight or fight response. This physiologic response stimulates the sympathetic branch of the ANS sending out hormones that prepare the organism to face the perceived danger or to have the energy to run away from it.

Historically, this was a good thing as danger in the lives of cavemen was real and needed immediate action. But the dangers (stressors) that individuals face today are more subtle and much more difficult to run away from. Some examples of modern day stressors include a difficult supervisor, loud environments, multitasking, email, media, technological advances, and social expectations. To complicate matters, it is often difficult to run away from these stressors. As a result, our bodies are left in a heightened state of stimulation that if sustained can cause physical problems such as ulcers,

high blood pressure, hypertension, diabetes, and obesity. It is therefore important to find a way to counteract the effect of the sympathetic branch of the ANS. This can be accomplished by activating the parasympathetic branch of the ANS. The parasympathetic branch returns the body to normal functioning reducing the input of stress hormones into the system.

The good news is that conscious breathing can bring the body back into balance. Inhalation stimulates the sympathetic branch and the exhalation stimulates the parasympathetic branch of the ANS. As an example of how this works, imagine yourself driving down the road and having someone pull out in front of you. What do you do? You take a deep breath, which prepares your body to respond to the danger. Then the danger passes and you exhale, the sign of relief.

The practice of deep diaphragmatic breathing enables the body to return to a state of balance, reducing the impact of the stressor. The practice diaphragmatic breathing is easy to learn and can be practiced anywhere. It begins by sitting in an upright position (or laying down) with you head neck and trunk in alignment. It is important to allow plenty of room for the diaphragm to expand outward (away from the spine) on the inhalation and to be pulled back toward the spine on the exhalation. Individuals in acute states of stress can focus on making the exhalation longer and making sure to completely empty the lungs. Breathing should be slow and even set to a count of six to eight per breath cycle.

Another approach to reducing stress focuses on heart rate variability and the ability to establish psychophysiological coherence. McCarty, et. al. (2006) state,

“It is now evident that every thought, attitude, and emotion has a physiological consequence, and that patterns of physiological activity continually influence our emotional experience, thought processes and behaviour. (p. 6). Heart rate variability (HVR) is the fluctuation in heart rate, which is the product of the dynamic interplay of several of the body’s systems including the heart and brain and the ANS. Researchers have found that the pattern of the hearts rhythm is primarily reflective of the emotional state. (McCarty, et. al, 2006). Research conducted by HeartMath (2006) reflect that positive emotions such as appreciation, care, compassion, and love generate a smooth, sine-wave pattern in the hearts rhythms indicating increased synchronisation between the two branches of the ANS and a shift toward increased parasympathetic activity. Negative emotions such a frustration, anger, anxiety, and worry lead to, incoherent, highly variable and erratic patterns indicating less synchronisation of the branches of the ANS.

Heart rhythm coherence can be achieved through a process called the Quick Coherence Technique (HeartMath, 2007, p. 3). This technique involves three simple steps as described below:

**Step 1 – Heart Focus:** Bringing your attention to the area of your heart.

**Step 2 – Heart Breathing:** Pretend you are breathing through your heart. Make your breath slow and gentle inhaling through your heart to a count of five or six and then exhaling through your heart through a count of five or six. Continue this process until your breathing feels smooth and balanced and you find a natural inner rhythm.

**Step 3 – Heart Feeling:** Continue to breathe through your heart and find a positive feeling, like care, compassion or appreciation. Once you have found that feeling, sustain it through your heart focus, feeling and breathing.

This simple technique was developed by the HeartMath Research Centre, Institute of HeartMath. Additional research, descriptions of the Heart Rhythm Coherence and technology-based coherence training devices (em-Wave) can be found at <http://www.heartmath.org/>.

## Responsibility

What is responsibility and how does it affect personal well-being? To be well, individuals need to be “response able”. To be aware of the environments they are in and the effect that these environments have on their physical and emotional well-being. Once aware of circumstances that effect well-being individuals can choose how they want to respond. Stress is frequently caused by the lack of awareness and the knowledge that you can control how you react to stimuli. Much time is spent perseverating over choices, judging others and ourselves, and worrying about the past or the future impact of these choices.

Avery and McCarley (2010) developed a model for responsibility referred to as The Responsibility Process. This model defines responsibility as owning your ability and power to create, choose and attract. Responsibility is further defined as a mental process that operates identically in everyone. It is a process that can be observed, learned, taught, studied, developed, modelled, and practiced. The keys to responsibility, ways through which you can unlock and master responsibility through daily practice include: Intention – intending to respond from responsibility when things go wrong; Awareness – catching yourself in mental states of denial (ignoring the existence of something), laying blame (holding others at fault for causing something), justifying (using excuses for things being the way they are), shaming (laying blame onto oneself, often felt as guilt), obligation (doing what you

have to do instead of what you want to do), and quitting (giving up to avoid the pain of shame and obligation); and Confront – facing yourself to see what is true that you can learn, correct, or improve.

The essence of the Responsibility Process is to be aware of how you are reacting to situations and rising above denial, blame, justifying, shame, and obligation to find solutions. Solutions derived from the Responsibility Process and grounded in truth and reality and eliminate the emotional component of decision-making. Involving emotions in the decision making process often causes stress and regret, which, have been shown to have negative effect on well-being.

## Environment

The environment plays a significant role in an individual's well-being. It is important to identify what type of environment creates a sense of relaxation and what environmental characteristics create anxiety and stress. For some, being in the outdoors, experiencing the sounds of nature creates an environment of calm and relaxation. For others perhaps, it is a concert with rhythmic music, people dancing, flashing lights and close contact creates the same sense of calm and relaxation.

In assessing environmental impact on well-being it is essential to assess the role of all senses; sight, smell, touch, taste, hearing, balance and movement, pain and ease (Sirkkola and Veikkola, 2010). Each of the senses provides stimulation to the CNS and engages the ANS to react and respond. Does the environment stimulate the sympathetic nervous system eliciting the fight or flight response or does it stimulate the parasympathetic system eliciting the relaxation response. Individuals need to become aware of how different environments affect them. Then it is their response-ability to create or immerse themselves in environments that provide the stimulation or relaxation that they are seeking. Temperature, lighting, space, location, accessibility, visual and auditory input are all very important aspects to consider. Sirkkola and Veikkola (2010) also speak of the importance of recognising that there are many everyday multi-sensory environments that can impact personal well-being. These include nature, cultural places, favourite place, home, and work. Environments must be consciously selected to meet your sensory and physiological needs.

The use of peaceful environments is often used in relaxation and meditation practices. After relaxing your body, you are encouraged to visualise a peaceful and calm environment that relaxes and refreshes you. Another approach to becoming aware of how environments affect you is to think about your favourite place. What characteristics does this environment have and how do you feel when you are in this setting? By becoming aware of how environments affect you, you can selectively choose those that contribute to your sense of wellbeing.

## Awareness

Closely related to the Responsibility Process is awareness or mindfulness. To be responsible one must be aware of themselves, their thoughts and actions. Kabat-Zinn (2005) states; “Mindfulness can be thought of as moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible” (p. 108). Mindfulness allows us to know what’s happening when it is happening and enables us to respond with clear vision, an open heart and without judgment. It provides us with the capacity for knowing or sentience.

Not paying attention to our environment, emotions, physical well-being and social interactions can lead to an imbalance in our system and potentially to disease. Kabat-Zinn (2005) carries this analogy further by stating that dis-attention can lead to dis-connection, which can lead to dis-regulation (where things start to go wrong), which leads to dis-order at the cellular, tissue, organ, or systems level which can lead to disease. Disease can be viewed as dis-ease. Not being at ease. By paying attention, we can counteract this negative pathway and find a sense of well-being. We can establish connection, leading to greater regulation, which leads to dynamic order or ease (Kabat-Zinn 2006).

How then can mindfulness be practiced? Mindfulness, unlike traditional meditation, is typically practiced in everyday activities such as walking or gardening. Mindfulness involves doing an activity with intention, understanding why you are involved in that activity and being fully present, observing without judgment all that is around you. It is important to be aware of all of your senses as you experience the present moment; taste, touch, hearing, sight, and smell. It is also important to become aware of your physical place in the moment, how you are standing or sitting, how your body is responding to the sensations of the environment around you. It is most important to be in the here and now, completely without judgment and without thoughts of other places.

Meditation is another form of mindfulness practice. Meditation utilises traditional techniques during which you sit quietly, watching your breath and watching thoughts as they move through your mind. In these techniques it is important to not allow yourself to get emotionally involved with the thought process, but to merely observe it and then ever so gently bring your thought back to the flow of your breath. Achor (2010) believes that meditation can help to decrease the cultural attention deficit disorders that we have come to experience as a society of multitaskers.

Developing this awareness and practicing mindfulness will enable you to see things as they really are, not clouded by emotion, previous experienc-



es, expectations for the future, worry or concern over the rightness of the activity. Kabat-Zinn (2006) speaks of the beginners mind. The beginners mind allows you to come to new experiences with an open and non-judgmental mind, the mind of a child. This approach requires that you stay in the present moment in a state of wonder and recognition of all that you are being exposed to, where things are fresh and uninfluenced by the past or future feelings, perspectives, and influences. Aspects essential to mindfulness include breath awareness, playfulness, and a willingness, to look and see for yourself how things might actually be behind the veil of appearances and the stories we tell ourselves about how things are (Kabat-Zinn, 2006).

## Thankfulness

Thankfulness, also referred to as gratitude, has been defined by Psychology Today (2014) as, "...an emotion expressing appreciation for what one has—as opposed to a consumer-oriented emphasis on what one wants or needs.... Studies show that we can deliberately cultivate gratitude, and can increase our well-being and happiness by doing so. In addition, grateful thinking—and especially expression of it to others—is associated with increased levels of energy, optimism, and empathy”.

This position is supported by Robert Emmons, professor of psychology at the University of California, Davis. In an interview conducted by Thirty Thousand Days Assistant Editor, Trudy Boyle, Emmons said that gratitude is a choice. That it is an attitude that we can choose to make our lives better. He does not believe that genetic disposition is the only contributor to being gracious. He states: “There’s a whole cluster of related characteristics that seem to go together — things like optimism, hope, gratitude, and happiness. Some of this, I would guess, is genetically determined. Some of it is going to be based upon early life experiences and positive relationships with other people. Very little of it, interestingly, seems to depend upon circumstances”.

Emmons also believes that a sense of entitlement can block the affect of these positive characteristics. If individuals take credit for all the good that comes to them, it will be difficult to feel a sense of gratefulness. Finally, Emmons states, “When things go well gratitude enables us to savour things going well. When things go poorly gratitude enables us to get over those situations and to realise they are temporary.”

There are several ways to increase your sense of gratitude. The simplest technique is to have a gratitude journal where you list each day something that you are truly grateful for. In addition, simple acts such as saying thank you or doing random acts of kindness can help to build a sense of gratitude. An additional benefit of gratefulness is that it allows you to focus on the good in your life, the little things that make your life worth living. It also helps you to refocus on the good things that you have in life, instead of what you are lacking (Aaronson, 2006).



## Happiness

What is happiness and are you in fact happy? In their book, *The Formula for Happiness*, Ramm and Czetli (2011) report on an analysis of the attributes of 100 case histories of their clients. From this analysis they describe happy people in the following manner: “Happy people tend to wake up fresh and rested most mornings. They greet the day with a sense of joy in being alive. They look forward to meaningful tasks and satisfying interpersonal interaction. Happy people like their work, but they also take time to play. Happy people are generally satisfied with where they live. They enjoy the company of their family as well as those they encounter in the community and on the job. They are liked by members of their families, by neighbours, and those they encounter at work and in their leisure time. Happy people have a reputation for being thoughtful, reliable, and responsible. Other people want to have them in their lives” (location, 615 – 657). Ramm and Czetli also believe that happy people are optimistic and when they are faced with frustration, disappointment or loss they are able to recover relatively easily.

Osho (2014) in his *21 Days of Meditation Series* (2014) states that to be happy an individual must be creative and live dangerously. But he goes on to argue that people often prefer to be in a state of misery because when miserable, they get more attention because people feel sorry for them and sympathise with them. But to be in a state of misery does not require intelligence or creativity. Happiness does. Through exploring and loving the experience of the unknown one can find their centre and find a state of happiness. Osho (2014) also recognises the importance of play in the pursuit of happiness. He states, “Play should remain your life, your centre life. Work should be as a means towards play. Work in the office and work in the factory and work in the shop, but just to have time, opportunity to play...Play means doing something for its own sake. To live dangerously means to live life as each moment is its own end”.

Davis (2012) published an article, *The Pursuit of Happiness in the IC View* that reflects on Brown’s research on happiness. Following Osho’s line of reasoning he states that, “Before the Renaissance [about 1300 – 1600], happiness was simply the absence of misery. If you weren’t starving or destitute, you were, by default, happy, and you could thank your lucky stars.” After the renaissance, happiness started being viewed as a human right.

Kabat-Zinn’s (2006) research has demonstrated that mindfulness practice can help individuals decrease negative destructive emotions and can predispose us to greater emotional intelligence and balance, and ultimately to greater happiness. He goes on to state, “This happiness may be so deep, so much a part of our nature, that it is like the sun, always shining’ (p. 375). He too recognised that happiness can be obscured by the conditioning of our own minds, but that it is always accessible and can be “touched, tapped and brought much more into our daily lives” (p. 375).

Achor (2014) author of *The Happiness Advantage* and founder of Good Think Inc. believes that the traditional formula for happiness: work hard, succeed and find happiness, is backward. This is due in part to the ever-increasing demands that are we place on ourselves once we reach a certain goal. There is always something more that can be achieved. It therefore becomes a vicious cycle that never really leads to happiness. He argues that happiness actually fuels success. He states that, “If you can raise somebody’s level of positivity in the present, then their brain experiences, what we now call a happiness advantage, which is your brain at positive, performs significantly better than it does at negative, neutral or stressed. Your intelligence rises, your creativity rises, your energy levels rise. In fact, what we’ve found is that every single business outcome improves. Your brain at positive is 31 percent more productive than your brain at negative, neutral or stressed” (<http://www.mutualresponsibility.org/culture/revising-the-formula-for-happiness-and-success>).

One strategy that Archer uses to increase happiness is to write down three new things that you are grateful for, for 21 days in a row. He has found that at the end of 21 days, the brain starts to retain a pattern of scanning the world, not for the negative, but for the positive first. By practicing this method individuals can reverse the formula for happiness and success, and in doing so, not only create ripples of positivity, but create a real revolution.” He adds that journaling one positive thing that happened each day will increase your brains level of positivity as will doing random acts of kindness.

The common threads in these articles indicate that happiness can be achieved by individuals who become aware of how they choose to respond to life’s situations, who are willing to recognise how they are perceiving their world and who are willing to exercise their minds as well as their bodies. The focus on play and recreation is of particular. The word, recreation, can be broken into two words, re-creation. The power of involvement in recreation-based activities is that it recreates ones energy, enthusiasm and self. It is also interesting to note that the word creativity is also reflected in the word recreation. Thus recreation and play are seen to be essential elements to the acquisition of happiness.

## Summary and Conclusions

It becomes evident that the components of the BREATH Pathway are interrelated and in many ways co-dependent on one another. Underlying all components is the importance to stop, take a breath and become aware of how you are choosing to respond to the world around you. Choosing your thoughts and environments wisely and having a sense of gratitude for the good in your life will lead to a sense of happiness and wellbeing.

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## **Multi-Sensory Environments: Combining the Therapeutic Benefits of Snoezelen, Stimulus Preference and Human Systems Dynamics: Applications of Snoezelen-MSE to Intergenerational and Family Work**

### **Abstract**

This article explores the whole brain, therapeutic influence of multi-sensory environments as a self-organising space that can be used to set nonlinear neurodynamic system conditions for deep vestibular-bilateral integration and emotional self-regulation in a wide variety of client groups. American Association of Multi-Sensory Environment (AAMSE) trainers are coaching health care and educational service providers to use models for visualisation of Snoezelen as physical, MSE as sensory, Stimulus Preference as individual learning style and Human Systems Dynamics as socio-emotional layers of a therapeutic system unity. Equally important, AAMSE trainers teach practitioners the basic complexity science and chaos theory principles they will need for holistic clinical reasoning during treatment.

AAMSE proposes that clinicians must learn to visualise this multi-scale complex adaptive system as a therapeutic lens through which a mindful and well-coached therapist may facilitate windows of opportunity for transformative client healing and growth. Allowing treatment to occur largely on the unconscious level, this therapeutic approach may be used to treat a broad spectrum of diagnoses that have an unpredictable treatment trajectory. This includes most psychosocial diagnoses, autism, ADHD and most any form of dementia. Rather than addressing treatment goals as separate skill trajectories, as is common in traditional health care and educational approaches, generalised patterns of healing and growth are approached as micro-, meso- and macroscopic scales of a single brain dynamics system.

The Improvisational Dynamics Model of Practice (Ryan, 2014) approaches client treatment “where the client is” using moment by moment clinical observations, reasoning and actions rather than rapidly followed preset short and long term goals. By facilitating a healthier homeostatic balance between reward and relaxation neuromodulators, conditions are set for the client to reach any self-motivated or client-centred goal that fits within this enhanced meaning environment. Context specific goals can be written as is required to justify services to third party payers.

A video will be shared of the application of this therapeutic model, demonstrating the shaping of positive approach and avoidance coping behaviours in a client with advanced dementia. Time-series video analysis is used as a nonlinear analytic method that can codify scaled self-organising changes within complex adaptive systems such as human behaviour patterns (Guastello & Gregson, 2011). Traditional assessments and context specific goals will be discussed that would meet criteria for third party payers while upholding the integrity of complexity science approaches as demonstrated by the nonlinear thematic analysis.

Research continues to expand on a new paradigm understanding of the power of healers using person-environment-occupation system dynamics within each client’s personal meaning making landscape. The difference that makes a difference (Eoyang, 2008) is that every client is approached as the expert on his or her own body-mind-spirit system using a generalised clinical reasoning approach that makes no practitioner assumptions of what should be meaningful and self-motivating for the client. The nonlinear neurodynamics of applying this model to intergenerational and family work will be introduced as a promising, emerging area of practice that can be applied to promote dynamical change within traumatized client groups such as homeless families, the many families in the world that includes at least one highly sensitive person or those containing family members exhibiting newly-acquired or residual patterns of post-traumatic stress disorder. A discussion will follow regarding the relevance and pattern coherence of applying a scaled version of this model of practice to any sociocultural system that tends to oscillate “between war and peace; between disorder and integration; between fear and hope” (Obama, September, 24, 2014, Retrieved from [textbreakingnews@ema312v06.turner.com](mailto:textbreakingnews@ema312v06.turner.com)).

## Introduction

Progress has been made in recent years in identifying and describing post-traumatic stress disorder but development of systems to provide effective treatment lags behind. A new awareness is developing among psychoanalysts addressing this condition that the same types of patterns may be seen in a broad spectrum of mental health conditions with a wide range of disabling influences (Levine, 2010; van der Kolk, McFarlane, & Weisaeth, 1996).

Most recently, the California Institute of Integral Studies has begun investigating “highly sensitive persons” as the proverbial canary in the coal mine when it comes to understanding the cumulative influences of lifelong stress and trauma on the human state of well-being and temperament (Cooper, 2014). A highly sensitive and empathic therapist applying Improvisational Dynamics within a Self-Organising Space (Ryan, 2014) or environment is proposed as an optimal treatment solution.

The human search for the condition called quality of life and the discovery of one’s life meaning has been considered universal and has been given the label of the meaning making process (Christiansen, 1999). By applying complexity science, systems thinkers are developing the capacity to observe, understand and influence the human meaning making process in more strategic and effective ways. Co-evolutionary system approaches are enhancing the adaptive capacities of clients and therapists as each becomes a healer or a teacher of the other, leading to development of increasingly sophisticated skills of discernment and adaptive action in the treating therapist.

Emotional self-regulation patterns, sensory sensitivities and individual learning styles are a part of the human condition and add to human system diversity. Within this context, self-organisation is the intuitive cognitive process that gives each person a “feel” for what should happen next (Damasio, & Carvalho, 2013) and can be used strategically in treatment by healers who have learned to trust the wisdom of self-organising systems (Briggs, & Peat, 1999) rather than depending exclusively on preplanned treatment approaches. The feelings of fear, anger or self-doubt that are characteristic of PTSD behaviour patterns can be turned into hope, trust and curiosity as the release of trauma allows for positive feelings of anticipation (Fosha, Siegel, & Solomon, 2009) of the future.

### **Advances through Complexity Science and Chaos Theory**

Complexity science and chaos theory are informing scholars and practitioners on system changes in a broad variety of areas and are now expanding practice and theory in the area of healing within therapeutic environments. Complexity science and chaos theory give logic to seemingly illogical and random experiences, increasing one’s capacity for lifelong experiential learning and the mental health benefits of having a more positive and relational mind-set. It is through the process of sense making that both the healer and the client continually grow as they develop and adapt to their current life environment. In this way, the roles of system healer and client co-evolve into a complementary pair shaped through the healing experience and within the bounded container of an enhanced meaning context.

Complexity science is the study of dynamic “systems that change with time” such as individuals (Gray, Kennedy, & Zemke, 1996, p. 301), communities and civilisations. Complexity science has provided a greater understanding of the dynamics of multi-scale complex adaptive systems in which a tiny, individual change will produce transformative shifts in every system in which it is a part. This is known as the butterfly effect or sensitivity to initial conditions (Lorenz, 1993). Adaptive responses develop into new generalizable ways of knowing that inform the higher level cognitive skills of decision making, planning, knowledge application and analysis as well as the core life skill of planning-in-action.

Models and tools applying complexity science to practice (Eoyang, 1997, 2012) are in use to inform actions of businesses and organisations. They are also being used to coach leaders (Quade & Holladay, 2010), in education reform (Patterson, Holladay & Eoyang, 2012) and for promoting mindful self-awareness (Tytel & Holladay, 2011). Now complexity science is being used to promote occupational pattern adaptation within therapeutic environments. The broader applications proposed in this presentation will promote use of these same models and tools on the scales of mental health, intergenerational and family dynamics and any sociocultural system that tends to oscillate “between war and peace; between disorder and integration; between fear and hope” (Obama, September, 24, 2014, Retrieved from [textbreakingnews@ema312v06.turner.com](mailto:textbreakingnews@ema312v06.turner.com)). This means it is applicable to any nonlinear human socio-emotional or sociocultural system.

Chaos theory is overturning old paradigm impressions that predictable and even common human behaviour must be the gold standard in a world that is actually looking for and needing mental health and human behaviour improvements. Chaos theory models are useful to show that system behaviour that would have once been considered random actually follows rules that allow that system to overcome previously habituated pattern attractors in order to develop new and more desirable patterns of behaviour. This occurs on the microscopic scale of system evolution occurring during a single therapy session and the macroscopic scale of system evolution occurring during the course of a client’s treatment plan. The difference-that-makes-a-difference is that PTSD clients treated in this way may actually have a fresh start through transformative pattern self-organisation rather than returning to old patterns as soon as they re-enter the unhealthy family-work-community systems that had previously shaped their undesired thoughts and behaviours.

In a health care world that requires quantitative evidence, chaos theory models offer hope that treatment approaches can be used that move beyond old paradigm patterns characterised by therapist-selected goals, therapist-controlled treatment sessions and non-client-centred treatment assumptions. Chaos theory models can be used to quantify and differentiate between linear and nonlinear behaviour pattern changes that occur during

treatment within a MSE. Practitioners commonly favour working with either linear or nonlinear systems so a full description and examples will follow of each within the context of MSE treatment.

Biomedical music approaches are linear because the therapist drives the show, the client responds to the show and the goal is meeting a set standard of performance. Patterns created by the therapist and followed by the client would be examples of those that would be expected to follow a linear path (Lorenz, 1993). If a MSE treatment results in a predictable multiplication of initial conditions over time, a linear relationship is demonstrated. Examples of this include goals addressing physical movement patterns through biomedical music approaches. These include music and speech cueing, reflexive speech mirroring, rhythmic entrainment and strengthening for regulation of respiratory control. In each of these examples, an exchange from outside the client system is used to directly shape behaviour by increasing the tension so that they have a reflexive response to reduce the tension. This has value in meeting the important goal of reducing falls and improving spatial navigation of long term care environments and shaping client speech for understanding by paid caregivers and others not familiar with the client's sociocultural and socio-emotional roots.

Improvisational Dynamics is nonlinear because the therapist sets his or her practice goal as observing, understanding and positively influencing moment-by-moment client-motivated generative engagements. These changes that occur during treatment follow a nonlinear path as therapist, client and environment work together as if they are a socio-culturally and socio-emotionally united family unity that has a shared capacity for overall synchrony and efficiency in all parts of that human system. In this way, clients often show dramatic shifts in self-regulation of emotions, capacity to generatively engage in meaningful occupations and participate in increasingly complex and purposeful adaptive actions. In this type of self-organising space, a man with dementia may feel like he has returned to the kitchen table and is providing for his young family around him. In this same type of self-organising space, a woman may feel like she is a vibrant member of her early-life family still anticipating the rewarding life roles that she is yet to experience. These life roles that have sustained evolutionary meaning for both men and women include lover, spouse or parent to the next generation.

The healer is continually facilitating positive change within the client while remaining forever a student of the healing process and a responder to the client's behaviourally expressed needs and desires. Improvisational dynamics will be explained as a way to facilitate emergent client-centred patterns by responding to the needs of the client and commonly by dampening the external tensions that are a common part of today's health care settings. Through Improvisational Dynamics, a healer learns to categorize and to differentiate between stress or trauma-based patterns of behaviour



and those that still have an evolutionary role in the self-regulation of emotion, consciousness and a sense of well-being.

Practice applications of complexity science such as human systems dynamics are designed for day-to-day use by practitioners including all scales of system healers. Chaos theory models provide the essential codification of this therapeutic process to meet the gold standard of quantitative research. It takes a union between the two, complexity science and chaos theory to promote acceptance of treatment within a self-organising space such as a multi-sensory environment. Applications of human systems dynamics within therapeutic environments facilitate the change and chaos theory codification describes it for the rational, analytic mind.

A treatment rationale for using Improvisational Dynamics within therapeutic environments is qualitatively grounded in the science on Self-Organised Learning Systems. A self-organised learning system sets the conditions for developmental learning whether a person is ready to learn something new about their environment, develop a new plan of action or put an existing plan into action. Self-organised learning systems allow clients to learn through self-motivated learning, exploration or even a sense of playful discovery. There are four simple rules applied for creating a plan of action to treat clients by targeting the adaptive response. These four simple rules are:

**Rule #1:** Use positive coping cues.

**Rule #2:** Target performance as a self-organised learning system.

**Rule #3:** Use self-motivating activities.

**Rule #4:** Offer only achievable challenges.

Neuroadaptation, human self-organised learning systems and all forms of nonlinear praxis develop through experiential learning. The complexity science of neuroadaptation explains why a good fit between person, environment, and occupational patterns is a key contributor to mental health (Schaffer & Gage, 2004). Neuroadaptation may be thought of as a brain-mind-body system. It is involved in the adaptive response required for coping with stress, setting and achieving goals, and ongoing developmental learning.

Psychosocial neuroadaptation supports unconscious action-oriented coping resources such as “optimism, mastery, self-esteem, and social support” (Taylor & Stanton, 2007). Neuroadaptation has an influence on retrieval of memories and development of new thoughts, ideas, and goals (Schaffer & Gage, 2004). The anticipatory energy generated by having a positive out-

look, on-going relationships, and future goals are neuroadaptive processes that contribute to a healthy lifestyle.

The educational concept of a self-organised learning system explains the core natural learning principles that make up Improvisational Dynamics within a therapeutic environment. It naturally creates the flow of client-centred therapy as a form of generative learning (Eoyang & Holladay, 2013). This is because it is composed of or includes:

- A positive and encouraging therapist
- Self-motivating therapeutic activities
- A well-designed environment
- An active exploratory learning approach
- Cues to trigger the adaptive response cycle

Strategies to avoid triggering subtle reactive stress responses when working are important when working with clients, family members or fellow workers. Subtle reactive stress responses may appear as a tendency to become:

- Anxious, angry or agitated
- Depressed, withdrawn or disengaged
- Disoriented or confused

### **Snoezelen as a Spiritual Context**

An MSE offers an environment that in some ways may feel like a spiritual context because it opens up new possibilities for experiential learning and growth. A spiritual context is “the fundamental orientation of a person’s life; that which inspires and motivates that individual” (AOTA, 2008, p. 609). The spiritual context might be thought of as a vehicle by which human participation is self-motivated by intrinsic components of an activity or life context that can get below the fight-flight-freeze responses that have developed during traumatic life experiences. These include activities that promote a sense of reward, a relaxation response, developmental learning or a purpose with infinite social or cultural meaning (Carse, 1986).

Two homeostatic states that can naturally neuromodulate within a Snoezelen are the feelings of being either centred or grounded. These are unconscious self-perceptions for some and forms of mindful self-awareness for others. Even those people who have developed the capacity to be mindfully self-aware of whether they are in the correct state for their current occupa-

tional challenge must use random exploration before they can learn how to strategically intervene for the purpose of neuromodulating their own nervous system (McNamee, September 27, 2014; Siegel, 2010, 2012). Until a person has acquired this capacity, the Snoezelen environment may seem like a life saver. This is because the environment sets the conditions for what the client can't yet achieve internally.

Overall environmental fitness is perceived as one's spiritual context because it provides an intuitive sense of being grounded and centred within one's occupational context, social and physical environment. Centring activities promote self-motivation by producing a feeling of personal reward within the context of daily life experience and positive anticipation of future possibilities. Grounding activities promote self-motivation by facilitating the relaxation response and the sense of a job well done. Each feeling in its own way assists neurons to secrete neuromodulators that further support an unconscious adaptive response through the approach and avoidance system in the brain (Carver, 2006; Freeman, 1995).

Survival requires the body's physiology to be maintained within a certain homeostatic or system stability range. Hunger, thirst, fear, and pain are feelings that serve as an internal trigger for a physiological corrective response that engages the survivalist system. Thoughts, feelings, and self-perceptions also act as internal cues that support choices leading to healthier occupations and more generative life engagements.

The rehabilitative release of trauma and the generative process of self-actualization are both tightly coupled with a person's capacity to be mindful of his or her environmental fit as well as interested and self-aware of one's own thoughts and behaviours (Levine, 2010).

The self-organising state of mindfulness can be promoted within a Snoezelen as the client experiences a gradual release of undesired patterns of emotion, thought and behaviour that can bias the human system toward survival-based patterns at the expense of quality of life (Porges, 2011) or the common good for one's family group, work and social networks (Bush, 2011). Mindfulness includes the capacity to stay calm or regain composure quickly following stressful events. It allows for the embedding of self-organising patterns of behaviour into daily life habits and routines such as: deep, cleansing breathes for calming; strategic use of humming; personally preferred music selection for mood control and relaxed but intentional striving for healthy environments that promote greater multi-sensory, self- and spatial awareness (Prehn, & Fredens, 2011).

## Multi-Sensory Environments as a Self- and Spatial Awareness Enhancer

Multi-sensory environments or MSE's provide a treatment tool that supports therapeutic change by setting the conditions for transformative emotional, perceptual and behavioural patterns by a mindful therapist or healer as they promote this same state within their client. Improvisational Dynamics offers a way to train healers to observe, understand and take therapeutic action in order to assist a client who is in need of moving out of their habituated comfort zone in order to pursue transformative change (Ryan, 2014). Within a coherent and comfortable environment, the nonlinear dynamics of behavioural self-organization is a multi-scale system influenced by brain-body-spirit-world, (Champagne, Ryan, Saccamondo, & Lazzarini, 2007; Lazzarini, 2004, 2005; Ryan, 2009).

MSE's (Messbauer, 2010; Messbauer & Ryan, 2013) provide a therapeutic space that is filled with positive approach coping cues for clients who do not have the capacity to self-regulate their emotions. Personally meaningful music, visual, movement, touch, and pressure sensations are all promoters of self and self-in-environment awareness (Messbauer, 2010). Multi-sensory integration cues may be thought of as foundational for coping with physical and emotional life changes (Nardini & Cowie, 2012). Examples of the strategic thinking and problem-focused coping achievements that can be mastered after emotions are self-regulated within a MSE include:

- Improved eye-contact
- More neuroadaptive visual scanning of environment
- Increased attention to eye-hand tasks
- Enhanced communication
- More complex occupational participation patterns
- More complex occupational performance patterns

The timing and synchronisation of a variety of multi-sensory inputs has been shown to influence the brain circuitry. It increases a person's ability to perceive natural cues from their environment (Schmitz, De Rosa, & Anderson, 2009). This is believed to occur by reducing the distractions of cognitive "noise" that prevent clear perceptions of the external environment (Collier, McPherson, Ellis-Hill, Staal, & Bucks, 2010). The first neuroadaptive responses observed in clients receiving treatment within a multi-sensory environment are a more positive affect, improved sleep and more regulated circadian rhythm cycles (LeGates, Fernandez, & Hatter, 2014; Messbauer, 2008).

Problem-focused coping, self-motivation, decision-making, and performance may all be enhanced by first matching the client's internal emotional state and then appropriately shifting multi-sensory integration cue intensity (Messbauer, 2010). An adaptive response within each MSE category offers its own type of self-organising cues. This is why therapeutic environments for clients with dementia are commonly referred to as implicit memory environments. Figure 1 and 2 demonstrate examples of the use of implicit memory cues in physical environments adapted to promote spatial navigation and generative engagement in people with dementia.



**FIGURE 1.** Implicit Memory Environmental Cues  
Used with Permission: Morning Pointe of Lexington East, Kentucky.



**FIGURE 2.** Implicit Memory Occupational Context Cues  
Used with Permission: Morning Pointe of Lexington East, Kentucky.

On the cognitive scale of emotional self-regulation, MSE treatment can be thought of as dampening the fight-flight-freeze response, reducing the negative coping patterns coupled with this response and decrease undesired and currently constraining behaviour patterns. Figures 3 and 4 illustrate MSE's designed by Linda Messbauer and currently in use in the United States. The American Association of Multi-Sensory Environments (AAMSE, n.d.) is the regulating board designed to ensure quality control of treatment within these MSE's. AAMSE is currently striving to overcome the challenges of practitioners, administrators and the U.S. health care system not yet recognising that special training is required to use MSE's well in treatment and therefore is required to develop accurate data sets for codifying MSE treatment results (<http://www.aamse.us/>).



FIGURE 3. MSE Environment

Used with Permission. Photo taken by: Linda Messbauer, OTR/L., Sensational Environments.

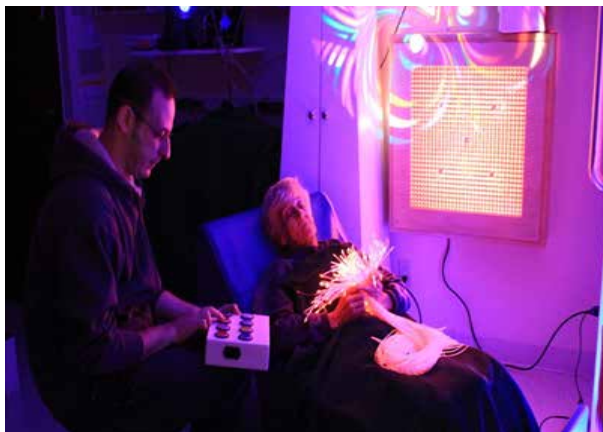


FIGURE 4. MSE Environment

Used with Permission. Photo taken by: Linda Messbauer, OTR/L., Sensational Environments.

Adaptive responses are involved in neuroplasticity or brain rewiring. Neuroscientists propose that three internal states or conditions must be present at the same time for brain rewiring to occur (Sara, 2000). Psychologists agree that motivation, ability, and a personally relevant cue must be present for developmental learning to occur (Fogg, 2009; Unsworth, Spillers, & Brewer, 2011). In treatment, these are called therapeutic cues and can serve as self-motivators. Specific types of therapeutic cues will be discussed within the context of MSE treatment.

Natural cues can be part of the environment, the occupation or the therapeutic exchange. Positive environmental cues that naturally generate a therapeutic response in MSE treatment include:

- Personally meaningful music facilitates whole brain energy exchanges that decentralise language, communication, sequencing and decision making functions for more efficient chunking of memories during new experiential learning. This decentralisation of energy transfer can also be thought of as a global therapeutic influence on the fight-flight-freeze response through the whole brain process of self-organized criticality (Prehn, & Fredens, 2011; Eoyang, 2008).
- Aromatherapy, manual manipulation and whole body massage exchanges that facilitate the relaxation response and activate skin sensors may dampen the fight-flight-freeze response (Galvin, Benson, Deckro, Fricchione, & Dusek, 2006) through activation of pressure sensors. Since skin is our largest organ with a variety of types of sensory receptors, it plays a strong evolutionary role in occupations associate the stress reduction, pain mediation, normalisation of muscle tone for flexibility, sociability and healthy communication patterns (Bundy, Lane, & Murray, 1991).
- Optic projector lighting exchanges that serve a central role in neuromodulating affect, sleep and circadian rhythms. It can also be a target for working with a client on developing smooth eye gaze and exploration of space for navigation (Changizi, 2009; LeGates, Fernandez, & Hatter, 2014).
- Vibro-acoustic exchanges that serve a central role in nerve and sound conductivity for vestibular-bilateral integration benefits through the vestibular-auditory-visual triad that supports all moving, listening and looking skills (Kawar, Frick, & Frick, 2005). It increases potential synapses for neuroplasticity by simultaneously combining two interrelated sensory inputs for multi-sensory integration.



- The self-organised occupational performance patterns that emerge following neuroadaptive sensory responses are commonly emergent and unconscious behaviours tied to the energy transfer of action systems within the brain. Action systems are brain networks with a neurobiological and human evolutionary purpose (Ogden, Minton, & Pain, 2006). Sensorimotor, emotional, and cognitive responses are shaped by these self-organising action systems. Some action systems activate the response to threat. Other action systems “stimulate us to form close attachment relationships, explore, play, participate in social relationships, regulate energy (through eating, sleeping, etc.), reproduce, and care for others” (Ogden, Minton, & Pain, p. 108).

Eight different action systems and their descriptions of each can be seen in Table 1. The blending of action system networks influence all unconscious action-oriented behaviours and begin with an adaptive response. Action systems are a strong influence on the psychomotor and affective aspects of experiential learning.

## Personal Preference Environments are a Key to Promoting Neuroplasticity

PERSONAL PREFERENCE E TABLE 1. Eight Action Systems

Eight Action Systems	
Defense	Activated whenever danger is sensed and leads to fight-flight-freeze behaviors.
Energy Regulation	Regulation of defense behaviors by the energy regulation system, self-regulates for adaptive actions and responses.
Attachment	Blocked by the defense system when feelings of insecurity are strong. Linked to sociability for bonding when feelings of safety and security are strong.
Sociability	Supportive of unified community behaviors, establishment of “common good” philosophies and collaborative behavior patterns.
Exploration	Linked to the attachment system because a sense of safety and security is required for exploratory learning.
Caregiving	Modulates adaptive actions and responses related to care and protection of offspring.
Play	Linked to the attachment system because a sense of safety and security is required for playful emotions and behaviors.
Sexuality	Linked to all the other action system to optimize intergenerational benefits of pair bonding and reproduction.

Created by Janice Ryan (Ryan, 2013) Improving occupational performance during the late lifespan. From *Trauma and the body: A sensorimotor approach to psychotherapy* (Ogden, Minton, & Pain, 2006).



Environments follow evolutionary neurobiological principles that provide universal benefits. Fitness with environment is an evolutionary advantage that supports developmental learning, reduces the random behaviours associated with learned helplessness and acts as a key to stress management throughout the lifespan. Researchers have found that the stuck patterns associated with learned helplessness can be reduced when the release of stress hormone norepinephrine in the anterior cingulate cortex is suppressed (McNamee, September 27, 2014). This may go far in explaining the positive shifts in affect and behaviour that occur when clients are treated within a Personal Preference Environment. It may also shed light on the powerful potential of being in the presence of joyful people, living in positive environments and participating in meaningful occupations (Eoyang, 2008; Fosha, Siegel, & Solomon, 2009).

Perceived performance challenges are social stressors that can cause identity confusion (Christiansen, 1991, 1999; Hasselkus, 2002) and negative feelings about self, others and life in general. Patterns of learned helplessness developed during childhood can be carried throughout the lifespan unless healing occurs. Commonly during adult years, perceived performance challenges are really just indicators that a person needs to change unhealthy and poorly fitting relationships, environments and occupations.

Social psychologists (Ogden, Minton, & Pain, 2006) recognise the positive emotions that can accompany good environmental fit as a key to adaptive action patterns, resilience, success, perceptions of life meaning and having a valued sense of purpose (Dweck, 2006). Childhood is a vulnerable period in life when poor fitness with environment can shape emotional self-regulation patterns that follow the linear trajectory of survival dynamics rather than qualitatively healthy family dynamics. These patterns are characterised by poor attachment to other family members, rigidly protected sensory needs and predictable behaviour patterns the young child needs in order to protect their fragile ego (Siegel, 1999). These patterns can remain with a child and enter their adult family system, promoting multiplication of the same patterns and further that pattern's linear course of development. Lorenz identified human systems in isolation as "perhaps the most familiar truly linear process" (1993, p. 161).

Self-perceptions of how a person fits within the contexts of their lifestyle are largely unconscious feelings influenced by a survival-based system in the brain and body that self-regulates affect, actions (Damasio & Carvalho, 2013) and coping behaviours called positive and negative approach and avoidance (Carver, 2006). An example of positive approach behaviour is the subtly conscious or unconscious experience called flow (Csikszentmihalyi, Abuhamdeh, & Nakamura, 2005). Flow is the state-of-being or feeling of generative engagement that emerges during meaningful occupations. An example of positive avoidance behaviour is the healthy response of an adult changing careers or going back to school when they feel unfulfilled or are

under unhealthy stress in their work or home life. Negative approach and avoidance behaviours include the rigid patterns commonly associated with stress and trauma which include extreme emotional reactivity, retreat into unfulfilling solitary lifestyles or health-compromising addictions.

The two generalised categories of coping-with-stress behaviour that have been discussed are called approach and avoidance. Table 2 illustrates behaviour patterns associated with positive approach and avoidance and negative approach and avoidance behaviours. The table demonstrates that positive approach and avoidance behaviours are always adaptive actions and responses. It also clarifies how negative approach and avoidance behaviours develop into habituated thought and action patterns that lead to feelings of being stuck. Negative approach and avoidance behaviours may be thought of as subtle or obvious forms of fight-flight-freeze responses.

Positive environmental cues promote approach behaviours such as healthy risk-taking and willingness for change. In contrast, the unconscious meanings of negative environmental cues activate avoidance behaviours associated with anxiety, agitation or fear.

TABLE 2. Approach and Avoidance Coping

## Natural and Therapeutic Approach and Avoidance Coping

	Approach Coping	Avoidance Coping
Positive	<b>Allowing engagement</b> with cues in one's environment, occupational context or interpersonal exchanges that promote <b>healthy</b> energy regulation, attachments, sociability, exploration, caregiving, playfulness or sexuality. This is a neuroadaptive coping response that can be promoted in therapy.	Setting boundaries that <b>prevent engagement</b> with cues in one's environment, occupational context or interpersonal exchanges that promote <b>unhealthy</b> energy regulation, attachments, sociability, exploration, caregiving, playfulness or sexuality. This is a neuroadaptive coping response that can be promoted in therapy.
Negative	<b>Habituated patterns of engagement</b> with cues in one's environment, occupational context or interpersonal exchanges that promote <b>unhealthy</b> energy regulation ( <b>fight or flight</b> behaviors) that block attachments, sociability, exploration, caregiving, playfulness or sexuality. This is a non-adaptive coping response that is avoided in therapy.	<b>Habituated patterns of disengagement</b> with cues in one's environment, occupational context or interpersonal exchanges that block development of the <b>healthy</b> energy regulation ( <b>freeze</b> behaviors) required for attachments, sociability, exploration, caregiving, playfulness or sexuality. This is a non-adaptive coping response that is avoided in therapy.

Created by Janice Ryan (Ryan, 2013)

From Trauma and the body: A sensorimotor approach to psychotherapy (Ogden, Minton, & Pain, 2006)

Fight-flight-freeze behaviour patterns may be then be thought of as hard-wired reactions to negative environmental cues. In practice, fight-flight-freeze behaviours may appear as obvious survival-based reactions. Examples of fight-flight-freeze behaviours can include physical outbursts, refusals to participate or extreme difficulty with making decisions.

Rewarding and relaxing feelings act as behavioural attractors that shape a person's personality and occupational patterns through the approach and avoidance system (Carver, 2006). This is a process called system self-organization. The process of self-organization follows a set of interaction rules to establish ordered patterns across space and time. Developmental learning of motor patterns in babies (Howle, 2002), cognitive control patterns in small children (Siegel, 1999), and occupational patterns through the lifespan (Champagne, Ryan, Saccamondo, & Lazzarini, 2007; Lazzarini, 2004, 2005) are examples of self-organizing human systems. Personal Preference Environments are holistic, client-centred therapeutic spaces in which self-organized learning can emerge from the natural seeking of self-organizing experiences.

Personal Preference Environments may be used to support educational goals. Two-way exchanges of cultural meanings between a young child and family are shaped into unconscious behavioural patterns called memes during the very early sensitive periods of life (Siegel, 1999). They act to ground the child in his or her physical world while centring them within their social environment. The conceptual modelling of a child's mind as an internal environment offers healers a new way to visualize and strategically promote developmental learning during therapy.

Enhanced self-awareness can support interpersonal, intrapersonal, and naturalistic learning (Gardiner, 1999) so that developmental learning can follow a more positive trajectory over the lifespan. Early life enhancement of a strong sense of identity and autonomy can prepare a young person for taking a more disciplined approach to life decisions, having more resilience during stressful times and developing the growth mind-set needed for more independent learning (Patterson, Holladay, & Eoyang, 2012).

Dysfunctional patterns can be overcome as the roles, routines and habits of vulnerable children are approached with intentionality. Figure 5 illustrates this occupational pattern-forming system as a complex adaptive system within which a child's personal identity and behaviour develops through two-way occupational exchanges with environment.

## Occupational Pattern-Forming System

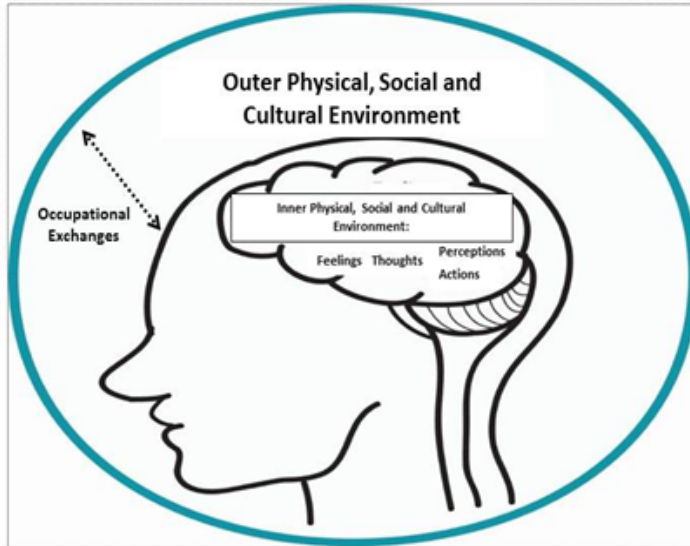


FIGURE 5. Occupational Pattern-Forming System.

Model Created by Janice Ryan (Ryan, 2013), Participation in occupation in the late lifespan. Illustrated by Breanna Wright, Rx TN Center for Teaching Arts and Technology, Roane State Community College Adapted from the HSD CDE Model (Human Systems Dynamics Institute, n.d.).

Personal Preference Environments are beneficial for treating children categorized as highly sensitive persons. Both are designed for the specific needs of clients who fall within the category of highly sensitive persons. “Based on the research of Aron and Aron (1997) and Aron, Aron and Jagiellowicz (2012) highly sensitive people are the 20 percent of the worldwide population who process experience more deeply- fueled by emotion- with no difference in the sense organs themselves” (Cooper, 2014, p. 5). The characteristics of a highly sensitive person include subjective processing of experience before taking action, overstimulation by sensory input and a more highly developed awareness of subtleties than other people. Aron described these people as intuitive, conscientious, empathic and highly creative.

Research has shown that seventy percent of highly sensitive people or HSP’s are introverted while 30 percent are extroverted (Aron, 2010). Approximately one third experienced unhappy childhoods predisposing them to develop psychological conditions including anxiety and depression while approximately two thirds experienced happy childhoods but their sensitivities “may lead others to believe they are neurotic or fragile in spite of their sociability” (Aron, 2010, p.6). Both types of HSP’s “tend to be more deeply affected by positive and negative experiences than others due to the depth

of cognitive and emotional processing” (Aron & Aron, 1997, p. 5). Qualities of these two types of HSP’s match patterns that the American Psychiatric Association has categorized as Asperger’s Syndrome and Attention Deficit Disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013).

Introverted HSP’s are commonly considered too intense by other children and often deal with the traumatic influences of social exclusion (Carver, 2006; Cooper, 2014), especially during unstructured times such as playing on the playground or participating in extracurricular play activities. Extraverted HSP’s gather their energy from solitary occupations but otherwise appear outgoing. This combination can be baffling to other children and so also tends to lead to childhood trauma related to social exclusion. Figure 6 illustrates the tension that seems to be felt more acutely by HSP’s illustrated on the Meaning Making on a Person-Environment-Occupation Landscape Diagram.

## Meaning Making on a PEO Landscape

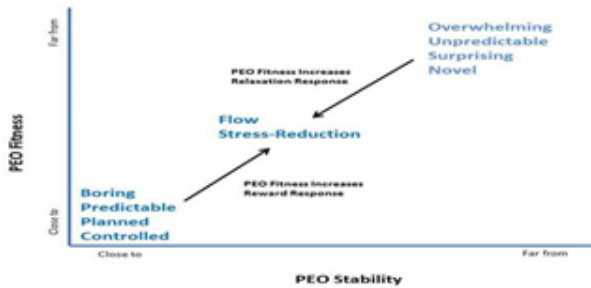


FIGURE 6. Meaning Making on a Person-Environment-Occupation Landscape. Adapted from the HSD Landscape Diagram (Human Systems Dynamics Institute, n.d.) Created by Janice Ryan (Ryan, 2013)

The Meaning Making on a PEO Landscape Diagram reflects the paradox or polarity that can commonly exist for HSP’s and that contributes to individualized preference patterns. They often crave stimulation yet become repelled when it feels like too much, sending mixed social signals to those who they would really like to interact with. All types of HSP’s benefit from but may develop addictions to occupations that produce the feeling of flow. Flow describes a state associated with meaningful and purposeful activity characterized by:

- “Complete absorption in the activity and diminished awareness of the external environment.”

- “A sense of oneness with the activity.”
- “Total immersion in the present moment and a lost sense of time.”
- “Lost fear or anxiety – everyday worries fade as people become increasingly engrossed in the activity.”
- “Immense feelings of personal satisfaction – the activity is rewarding in itself.” (Gutman & Schindler, 2007, p. 75)

Flow activities include creative expression, occupations in the workplace, education, music, gaming, sports, religion and spirituality (Csikszentmihalyi, 1997; Keller & Bless, 2008; Keller, Bless, Blomann, & Kleinbohl, 2011; Massimini & Carli, 1988). Not only is the mesocorticolimbic system activated during the pleasant feelings of flow but also it is believed to do much more. Subtle shifts in the emotional self-regulation associated with affect and mood are considered likely contributors to identity, attachment, personality development, and expression.

HSP's gravitate toward habits of meaning or reinforcing experiences that provide the positive feelings of flow. Sometimes these positive feelings are sensory pleasures such as the scent of a garden or cologne. Other times they are emotional experiences such as the feeling of social bonding or generative engagements. Still other times they are associated with the feelings associated with competitive work goals or gaming.

HSP's develop secondary challenges related to the trauma of social exclusion. MRI studies show that the prefrontal cortex of the brain, which is responsible for cognitive control, is negatively influenced by social interactions in which one feels physically or socially isolated and/ or victimized (Eisenberg, Lieberman, & Williams, 2003). This new paradigm understanding of Asperger's Syndrome and Attention Deficit Disorder requires health care practitioners and educators alike to recognize that many of the world's most gifted and creative young people are suffering from the social isolation that comes from seeing and understanding patterns that others are not sensitive enough to see. Personal Preference Environments provide a therapeutic tool for HSP's to overcome these secondary challenges, freeing themselves to move out of previously constrained comfort zones.

In all people, the central nervous system acts continually to monitor the human interior and exterior environments of everyday life. Visceral muscles and heart rate levels are two examples of internal body systems that serve to detect body state change and restore physical system homeostasis. This rebalancing occurs within an internal adaptive system in which emotion and cognitive control are integrated through self-regulatory adjustments such as heart rate, hormone secretion, and breathing (Ogden, Minton, &

Pain, 2006). Personal Preference Environments allow for the just-right combination of inputs to restore feelings associated with a positive mood.

Although the approach and avoidance system works as an interconnected whole, Personal Preference Environments can be used to neuromodulate highly sensitive responses in the same two complementary ways they influence everyone. Activities and environments that are primarily self-motivating may be thought of as having a centring influence as they activate reward centres in the brain. These activities and environments support feelings of social connectedness, positive emotion and/ or social identity. These occupations tend to have a positive social purpose because they promote interpersonal bonding, empathy, collaborative processes and community building (Champagne, Ryan, Saccamondo, & Lazzarini, 2007; Freeman, 1995).

Activities and environments that are self-motivating because they have a grounding influence are those that promote the relaxation response in the brain during periods of stress. Herbert Benson, M.D. identified the relaxation response and has since proven its powerful stress-reducing benefits during mindfulness and meditation (Benson, 1975/2000; Gutman & Schindler, 2007). The challenging patterns of reactive stress called the fight-flight-freeze response are states that are neither centred nor grounded but are commonly activated each day in everyone on at least a microscopic scale. For HSP's these shifts feel more extreme and demand more energy to sustain self-regulated emotions and cognitive control.

Although the fight-flight-freeze response was vital for self-preservation in the wild, its current neurobiological influence shapes the boundaries of one's personal comfort zone and eventually one's repertoire of emotions. Fight-flight-freeze reactions can have a cumulative negative impact over the lifespan if not resolved through the deep healing called soul work. Facilitation of neuroplasticity is the therapeutic process that allows healers to support clients of all ages with a desire to change habituated patterns in need-of-change.

Personal Preference Environments are therapeutic for adult clients including the healer. Carl Rogers (1951, p. 487) gave the name self-actualization to an advanced state of social and emotional wellness that can be achieved during the late life span. He said, "The organism has one basic tendency and striving – to actualize, maintain, and enhance the experiencing organism" throughout the life span. A well-aging client can continue to sustain or regain person-environment-occupation fit following a variety of life transitions by continuing to respond adaptively.

An individual continues to learn from experience throughout their entire lifespan through this neuroadaptive process. Carl Rogers recognized that self-actualization can only occur naturally when a person has the capacity to use independent, creative thought (Carl Rogers, 1959). Within the context



of a Personal Preference Environment, therapeutic cues of various types can be used to promote the neuroadaptive process of self-actualization.

Personal Preference Environments allow for neuroplasticity and habit changes throughout the lifespan. Recent advances in brain technology such as neurological imaging have allowed scientists to view brain function during occupational participation (Nattkemper, 2004). This includes functional magnetic resonance imaging (MRI), positron emission tomography (PET), and electroencephalographs (EEG) (Bankman & Morcovescu, 2002). This research has demonstrated the benefits of meaningful and purposeful occupations to reduce the stress of anxiety or boredom.

The reduction of stress and stress-related diseases can slow cognitive decline by supporting cognitive system control for better developmental learning and adaptation to environmental change. The capacity to adapt to change in positive ways during aging is called resilience. Resilience is the adaptive capacity that supports healthy adjustments to the inevitable internal and external system stressors common during aging years. Resilience is the combined patterns of adapting to change and regaining a feeling of stability.

Stress responses tend to block the emotional integration required for cognitive control of an adaptive response. Table 3 demonstrates a Human Systems Dynamics Model called Magic 21 that is used to teach practitioners how to facilitate flexibility in rigid, stuck systems. This table demonstrates how a high level of adaptive capacity can be facilitated in treatment to promote cognitive system flexibility so that stressors can be endured more calmly and recovered from more quickly through Improvisational Dynamics.

TABLE 3. Improvisational Dynamics.

Play Therapy for People with Dementia		
An HSD Magic 21 Analysis: Facilitating Generative Client Engagement through Improvisational Dynamics		
Containers	Differences within	Exchanges within
adapting-in-therapeutic action	leading through inquiry/ not expectancy	open anticipation
	mindfully observing/ not assuming	receptive attention
	acting as a system attractor/ not a system director	time-sensitive responding
sensemaking of client behavior	emotional triggers as release of tension/ not attempt to control	perceiving
	behavioral patterns as a search for meaning/ not random actions	understanding
	client intentions/ not only their actions	making sense of
adaptive action	client in a shared PEO Landscape/ not in isolation	observing
	with interpretation/ not pre-conceived ideas	understanding
	with adaptive actions/ not a pre-set plan	influencing

Adapted from the HSD Magic 21 (Human Systems Dynamics Institute, n.d.);  
Created by Janice Ryan (Ryan, 2013)



Table 4 illustrates the emotional self-regulation activity checklist. The emotional self-regulation activity checklist demonstrates a way to informally identify which rewarding and relaxing activities center or ground a person's arousal level for coping with life stress. The positive feelings and homeostatic adjustments associated with emotional self-regulation of stress are supportive of well-aging.

TABLE 4. Emotional Self-Regulation Checklist

Centering <span style="font-size: 0.8em;">→</span> (Increasing Pleasure-Reducing Boredom)	<span style="font-size: 0.8em;">←</span> Grounding (Increasing Comfort-Reducing Anxiety)
Positive Interpersonal Relationships	Progressive Relaxation
Positive Self-Talk	Deep Breathing
Joyful Religious, Social and Cultural Rituals, Relational Prayer	Meditation, Mindfulness and Contemplative Prayer
Fast Upbeat Music/ Songs	Slow Rhythmic Music/ Instrumentals
Laughter/ Singing Joyously/ Choir	Humming/ Singing Quietly & Rhythmically
Dancing, Aerobics, Energizing Yoga Poses	Isometric Exercises, Relaxing Yoga Poses
Power Walking/ Group Walking	Leisure Walking/ Calm Settings
Novel/ Interesting Multi-Sensory Environments	Familiar/ Predictable Multi-Sensory Environments
Visualizing Loved Ones/ Successful & Joyful Social Exchanges	Visualizing Pleasant Scenery & Natural/ Open Environments
Teamwork	Working in a Quiet Space
Social Community Service	Task-Oriented Community Service
Reminiscing Together	Cleaning & Polishing
Work with Novelty and Surprise	Predictable/ Planned Work
Creative Expression	Home & Yard Work
Reading Romance or Mystery Novels	Reading Educational & Self-Affirming Books
Working Collaboratively on a Project	Winning a Competition/ Marking Jobs off a List
Collaborative Computer-based Learning	Exploratory Computer-based Learning
Virtual Games: X-Box	Virtual Games: Wii
Writing Poetry or Narratives	Journaling about Feelings to Let Go
Swimming	Hot Shower/ Bath
Meaningful Relationship Hugs	Comforting Hugs
Caring for Meaningful People or Pets	Caring for Meaningful Objects or Spaces
Enjoying an Ocean Breeze or Warm Sun	Wrapping in a Heavy Blanket
Face-Paced Social Events	Alone-Time
Bright/ Rhythmic Light Patterns	Slow Swinging or Rocking
Drinking Coffee, Energizing Herbal Teas	Drinking Water, Relaxing Herbal Teas
Tasty or Complex Food	Chewy or Crunchy Food

Integration of Emotion and Cognitive Control

The Emotional Self-Regulation Checklist (Ryan, 2013): Participation in Occupation in the Late Lifespan

Personal Preference Environments set the conditions for transformative human systems dynamics. Within intergenerational and family work, the body can be understood as a semi-permeable system container by which release of the harmful influences of the residual influences of life trauma can be achieved. By applying the Snoezelen as a physical, Multi-Sensory Environment as a sensory, Human Systems Dynamics as a social and Stimulus Preference Environment as an emotional self-regulating space, a client can

be nestled in a cocoon of therapeutic life experience that supports their capacity to change undesired patterns of habituated unconscious behaviour (Fava & Strauss, 2010). This therapeutic environment should be considered a tool in the hands of a client-centred, holistic healer.

The healer acts as a promoter of the client-generated process that naturally occurs when one self-organizes to their environment with intentionality (Lazzarini, 2004). Rather than viewing this as a one-way process during which the client is simply shaped by their environment, improvisational dynamics can be used to promote two-way exchanges between the internal environment of a client's mind-body-spirit and the therapeutically enhanced external environment around them. An enhanced therapeutic environment adds energy to the system so that undesired and non-adaptive habits can be overcome.

The deeply embedded patterns of unconscious behaviour addressed by a treating therapist may be understood as the patterned trajectories that developed during early sensitive periods of life development or epigenetics (Siegel, 1999). Only patterns of behaviour that a client desires to change will be open to adaptation through treatment. Self-motivation, personal reward and the relaxation response are all naturally enhanced when a willing client and an observant healer work together within this deeply therapeutic environment (Ryan, to be published 2015).

### **Human Systems Dynamics Environments to promote healthy caregiver relationships**

With the underlying spiritual need for interpersonal connectedness recognized by psychologists (Siegel, 2010, 2012) and neuroscientists (Freeman, 1995, 2000), treating the complex needs of clients with challenges related to an inability to emotionally self-regulate during either social or perceptual exchanges have become an important area of mental health practice. The well-played client-caregiver relationship (Fava & Strauss, 2010) is an essential contributor to helping clients meet these goals. A personally meaningful and enjoyable environment is of equal importance.

Facilitation of blocked adaptive responses can be used to promote developmental learning. Developmental learning at any age might be defined as the natural process of learning from patterns of experience that involve ongoing adaptive responses. Therapeutic adaptation may be defined as an adaptive response facilitated by a practitioner in treatment to promote the natural process of developmental learning. Developmental learning and therapeutic adaptation are utilized in the well population as well as those with impairments, activity limitations or disabilities.

Adaptive responses are healthy adjustments to environmental changes that can occur throughout the life span. They may be thought of as a natural form of developmental learning that can form self-actualizing occupational performance patterns over time. Coping resources are called upon to generate an updated adaptive response when the physical environment or the social rules of the game have changed (Carse, 1986).

Stress- and trauma-related pattern rigidities form behavioural sensitivities related to poor environmental fit. Since self-actualization requires a person to have enough flexibility to adapt to environmental changes, adult learning and healthy aging for self-actualization may be blocked by an inability to respond to today's environmental cues. This leads to reactive patterns that have often ceased to be adaptive for the good of the individual or for achieving their current life goals.

A model of the adaptive action cycle (Human Systems Dynamic Institute, n.d.), developed from complexity science principles, has been modified for use in multi-sensory environment treatment. The Adaptive Response Model is shown in Figure 7 and is used as a teaching aid to support practitioners and caregivers to analyse, synthesize, and comprehend the assessment of occupational participation patterns in clients. This includes assessment of cognitive control, affective state, and the complex neuro-occupational dynamics of developmental learning.

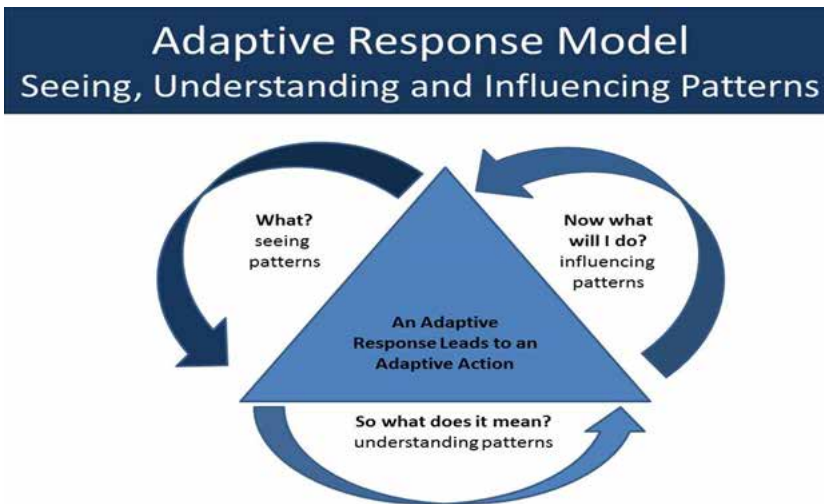


FIGURE 7. Adaptive Response Model  
Adapted from the HSD Adaptive Action Model (Human Systems Dynamics Institute, n.d.);  
Created by Janice Ryan (Ryan, 2013) Participation in occupation in the late lifespan

### Positive Coping Cues:

There are two types of positive coping cues. One is positive emotion-focused coping cues and the other is positive problem-focused coping cues. Both are important environmental or therapeutic cues that support a client's capacity to achieve therapeutic adaptation.

Positive emotion-focused coping cues may be used to promote emotional self-regulation within and outside of the therapeutic environment. Positive emotion-focused coping cues may be part of the environment, occupation or therapeutic exchange. Developmental learning of new occupational performance patterns will flow more naturally when the therapist is able to facilitate a positive shift in emotional self-regulation. Emotion-focused coping cues may be used in treatment to enhance participation while not competing with the therapeutic goals. Some examples of emotion-focused coping cues that are useful with elderly clients and those who have dementia include:

- Playing a client's favourite song to bring back implicit memories of earlier dancing years can trigger self-motivation to participate in an exercise dance group.
- Offering a therapeutic activity stored as a positive implicit memory. Examples can include a woodworking project for a handy man or folding children's clothes for a mother. A positive implicit memory can trigger self-motivation to participate in the activity group. Other memories and a greater willingness to engage in other functional activities develop by participating in the conversation and reminiscence that accompanies a favourite activity.
- Creating a familiar social dynamic. Eating breakfast at a family-style table can trigger self-motivation to participate and more mindful participation in a morning news and orientation group.

Positive emotion-focused coping cues generate a palliative adaptive response within the context of dementia care and treatment. Mood improves without directly changing the physical condition of the client (Taylor & Stanton, 2007). However, since one adaptive response tends to set the conditions for another, an increase in self-motivation may lead to increased attention and memory retrieval. Linking together strands of interrelated adaptive responses can help a client make significant functional gains.

Self-motivation is the underlying adaptive response required to increase focused attention for new learning when treating clients with the cognitive capacity to benefit from activities that go beyond a palliative approach. Therapeutic activities that might be used with clients within the boundaries of their current ability to achieve functional goals may require a more

mindful state of consciousness. These activities can be embedded in treatment or a home program and can include:

- Expressive and creative arts
- Meditation or contemplative prayer
- Journaling or therapeutic dialogue
- Visualization and imagery

Emotion-focused coping resources are the underlying emotional self-regulation strategies that can be used to support healthy coping behaviour. Rather than activities, these are patterns of thought that support as well as promote coping, self-motivation, attention, adaptive action, and learning. Therapists can teach clients about the benefits and coach them while they develop their self-regulation strategies. They are also part of the mindful state of consciousness that consists of good self-awareness and the positive sense of being in control of one's own PEO fitness decisions. Emotion-focused coping resource can include:

- Reframing negative thoughts
- The flow of positive thinking
- Mindfulness

Positive problem-focused coping cues can be used by occupational therapy assistants to trigger context-specific neuroadaptive responses. Positive problem-focused coping cues support a client's capacity to take intentional adaptive actions designed to change life problems. For clients with the cognitive capacity, these adaptive actions are the ones required to improve self-awareness and increase the client's sense of being in control of their own PEO fitness decisions. Examples of problem-focused coping cues for clients with a high level of cognitive capacity include:

- Computer-based or reading materials to promote self-education
- Job search skills practice
- Leisure skills interest questionnaires

Problem-focused coping cues can also be used in a palliative manner for clients with dementia. Retrieval of implicit memories will flow more naturally when a therapist understands how to facilitate a positive shift in adaptive actions. As stated earlier, problem-focused coping is specific to the occupational context. Problem-focused coping cues can be used in treatment to

target an adaptive response in clients without the internal coping or adaptive capacity to improve their own PEO fitness. Examples include:

- Teaching dementia caregivers to follow a set of simple rules to improve the client's capacity to function more independently in their new assisted living community.
- Recommending the family of a client with dementia remove throw rugs from their home to prevent falls.
- Arranging the tools a client with dementia needs for tooth brushing by placing them in the client's visual space in the correct sequence for use.

Problem-focused coping resources are the environmental resources that support healthy coping behaviour. These are commonly the social, cultural and economic resources a person has that support coping rather than activities, emotional, or cognitive states. Examples of problem-focused coping resources that allow a person to positively change their PEO fitness include:

- Strong family attachments
- Financial security
- Meaningful community relationships
- Purposeful life roles, routines, and habits

Positive coping cues may be embedded in therapeutic environments to serve the needs of clients with severe cognitive and psychosocial challenges. Coping cues may also need to be embedded in therapeutic environments for clients with extreme challenges in internal coping or adaptive capacities. Therapeutic environments, occupations, and exchanges are all often required to be addressed in treatment for clients living with the overwhelming stress of living with dementia.

Two therapeutic environments in which the neuroadaptive response may be facilitated for clients with dementia are the positive implicit memory and multi-sensory environment. Ways to target occupational performance by using implicit memory cues as a self-organized learning system will be provided. Examples include self-organized learning systems that have three types of embedded implicit memory cues. These include the:

- Therapeutic environment
- Occupational context
- Therapeutic exchange

Lastly, occupational performance may be enhanced by embedding implicit memory or identity cues into the therapeutic exchange. Embedding implicit memory into the therapeutic exchange follows the principles of positive psychology (Dweck, 2007; Prehn & Fredens, 2011) and human systems dynamics (Eoyang & Holladay, 2013). Positive implicit memory or identity cues embedded in therapeutic exchanges may support occupational performance. It provides a sense of safety for the client to use a positive approach pattern rather than avoidance patterns. Three examples are provided for the use of positive implicit or identity cues embedded in the therapeutic exchange. They include:

- The Positive Approach (Snow & Bunn, 2013)
- Play Therapy for People with Dementia (Ryan, 2013)
- Generative Group Engagements (Human Systems Dynamics Institute, n.d.)

Positive Approach patterns were identified by Snow & Bunn as a way to approach and interact with clients with dementia that signal they are safe, secure, and respected. This approach has been used extensively to teach caregivers how to interact more successfully with people who have dementia. Table 5 describes the seven steps of the positive approach.

TABLE 5. The Positive Approach

<b>The Positive Approach</b>
Come from the front.
Go slowly.
Get to the side.
Get low - sit down.
Offer your hand.
Use the person's preferred name.
Wait for a response before you start talking or doing.

Created by Janice Ryan (Ryan, 2013)

From *Accepting the Challenge: Providing the Best Care for People with Dementia* (Snow & Bunn, 2003)

Play Therapy for people with dementia combines the comforting support of empathic therapeutic exchanges with the clinical skill of facilitating the neuroadaptive response (Ryan, 2013). Figure 6 illustrates a HSOT Practice Model for this therapeutic exchange supporting a client's need for:

- Empathic understanding of fight-fright-freeze behaviours.



- External assistance for regulating emotions.
- Therapeutic facilitation of an adaptive response.

The feelings of security and safety play therapy promotes in clients with dementia is believed to activate their play action system. It has also been theorized that a more self-regulated state tends to increase a client's capacity to respond to a broader range of therapeutic cues (Roccas & Brewer, 2002). Occupational therapy using this approach prepares the client's nervous system for developmental learning within the scope of their current adaptive capacity.

Generative Group Engagements use the Human Systems Dynamics Institute (n.d.) Model found in Figure 8 to promote more positive or generative therapeutic group exchanges. This approach is believed to promote feelings of security and safety within group activities. The feelings of security and safety seem to support the client's capacity to use their exploratory action system for developmental learning and sociability. During the progression of dementia, clients can re-experience the most positive dynamics of their interpersonal life experience through the feelings of generative engagements.

## Coaching Generative Group Activities

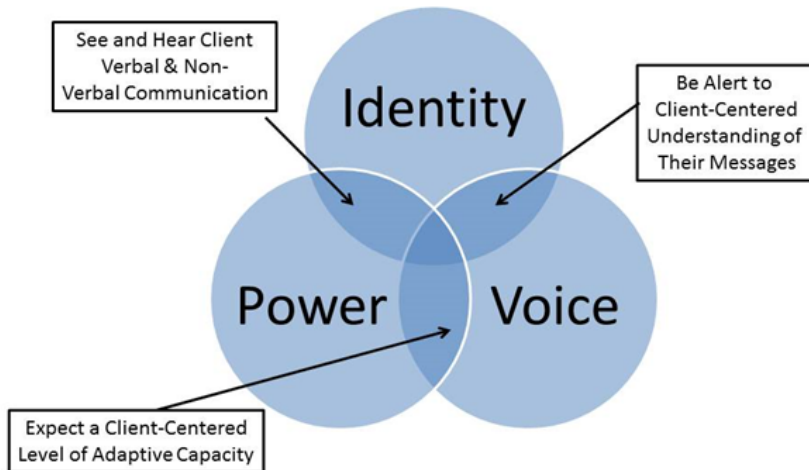


FIGURE 8. The Model of Generative Engagement  
 Created by Janice Ryan (Ryan, 2014)  
 From HSD Model: Generative Engagement (Human Systems Dynamics Institute, n.d.)



The Human Systems Dynamics Model of Generative Engagement created by Holladay and Nations (Human Systems Dynamics Institute, n.d.) has been adapted for occupational therapy. These same principles can be taught to memory care givers by teaching them The Simple Rules of Relationship-Based Memory Care (Ryan, 2009). Refer to Table 6 for this application of the Simple Rules Model (Human Systems Dynamics Institute, n.d.). This approach can be used to teach Long-Term Care Community Caregivers how to use daily exchanges with community members. It promotes daily exchanges that naturally provide the just-right performance, security, identity, and language cues to promote emotion-focused coping in residents with dementia while maintaining their safety in a long-term care environment.

TABLE 6. The Simple-but-Scientific Principles of Play Therapy for People with Dementia

The Simple-but-Scientific Principles of Play Therapy
1. Play to the outside of the Drama Triangle.
2. Observe by applying “outrospection”.
3. Understand by applying open “inquiry”.
4. Influence in the time-sensitive moment.
5. Enhance constrained perceptual receptivity.
6. Dampen emotional and social triggers.
7. Move the system toward more generative engagement.

NOTE: This is a really interesting and well put together article that is very long. I thought we were limited to 10 pages. I was not able to see the charts and tables so I have no input on these. I also think that center is spelled differently in British English but I was not sure and did not make those changes.

Created by Janice Ryan (Ryan, 2014)

From HSD Model: Simple Rules (Human Systems Dynamics Institute, n.d.)

## Discussion

It is time for an international effort to produce research proving the nested and multi-scaled therapeutic benefits of Snoezelen, Multi-Sensory Environments, Personal Preference Environments and Human Systems Dynamics Environments in the healing of a broad variety of mental and cognitive health challenges commonly seen in intergenerational and family work. Advances in complexity science and chaos theory are enhancing treatment approaches and creating new possibilities for codifying the nonlinear improvements that emerge during well-designed treatment in therapeutic environments. An important aspect of successful research efforts to support the therapeutic benefits of multi-sensory environments requires serious at-

tention be given to introductory and advanced training and coaching of new practitioners.

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- van der Kolk, B. A., McFarlane, A. C., & Weisaeth, L. (Eds.). (1996). *Traumatic stress: The effects of overwhelming experience on mind, body and society*. NY, NY: The Guilford Press. Figure 1: Implicit Memory Environmental Cues

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## Effect of the Snoezelen Concept on the clients during direct therapy without necessity of equipped Snoezelen room

### Abstract

The Snoezelen concept found its place within the professional as well as layman public. Nevertheless, the difficulty with the Snoezelen is the lack of fully equipped Snoezelen rooms due to their considerably high acquisition price. Therefore, such an obstacle often discourages not only companies but also individuals from the former intention to work with the Snoezelen concept. Outpatient treatment using the Snoezelen therapy is not common in the Czech Republic and Slovakia either. The Snoezelen therapy is a functional concept which significantly influences psyche and human's health in a positive way. Based on the aforementioned, it is necessary to provide the Snoezelen therapy even to clients who are unfortunately deprived of living in a facility that performs Snoezelen therapy successfully. Furthermore, it is inevitable to offer this alternative to the therapists who are interested in working with the Snoezelen philosophy despite their facilities not having space and money either to furnish Snoezelen environment. As a result, our attention should primarily focus on a Snoezelen therapist, his or her competencies and on an attempt to extend the usage of Snoezelen concept in practice so that it would not necessarily be bound by a fully equipped Snoezelen room.

Nowadays, Snoezelen should represent an irreplaceable mission in all possible organizations and not only serve as an alternative for mentally disadvantaged clients or clients with combined difficulties and seniors. Additionally, usage of the Snoezelen is possible and almost endless in its applicability on condition that the Snoezelen therapy is connected with a competent Snoezelen therapist equipped with the set of necessary sensory aids that are mobile and usable anytime in contrast with static Snoezelen



rooms, which are, of course, irreplaceable units but prevailingly unavailable to most of the clients.

Point of departure for this lecture is the practical effect of the Snoezelen therapy directly on the environment where a client is located and does not have any Snoezelen room available. This lecture is grounded in practical experience and videos from my Snoezelen activities. I am dealing with spheres of an early care in home environment (new born and infant period); children with combined disability (from 0 – 12 years); children with severe mental retardation (15 – 18 years); clients after apoplexy, seniors with an array of dementia forms mostly placed into their home environment.

In such a concept, the Snoezelen therapy possesses more joyous future perspective.

## **Introduction**

The Snoezelen concept has lately found its place within professional as well as layman public. Nevertheless, high acquisition price of Snoezelen rooms embodies a very frequent difficulty in implementation of the Snoezelen concept into individual facilities. Therefore, such an obstacle often discourages not only organizations but prevailingly individuals from the former intention to deal with the Snoezelen therapy without the dependence on the fact whether the institution where the therapist works owns the Snoezelen room or not.

Outpatient treatment using the Snoezelen therapy is not a common practice in the Czech Republic and Slovakia either. The Snoezelen therapy is a functional concept which significantly influences psyche and human's health in a positive way. As a result, our attention should primarily focus on a Snoezelen therapist, his or her competencies and on an attempt to extend the practical usage of Snoezelen concept. Therapist's competencies are directly dependant on division into relevant categories.

### **Distribution of competencies for Snoezelen treatment**

Distribution of competencies for Snoezelen treatment is also one of the basic prerequisites of quality, qualified and especially successful help. The distribution into the following categories appears to be the most appropriate:

- a. Snoezelen guide for leisure activities
- b. Snoezelen guide providing support
- c. Snoezelen therapist

An array of criteria for education and education in the Snoezelen field applies to the three, aforementioned categories, in order to provide a quality treatment. Competencies of each category vary and are interconnected with the system of Snoezelen education in the Czech and Slovak Republic. Therefore, videos included in the presentation take this aspect into consideration.

Nowadays, the Snoezelen should represent an irreplaceable mission in all possible organizations and not only serve as an alternative for mentally disadvantaged clients or clients with combined difficulties and seniors. Additionally, usage of the Snoezelen is possible if not almost endless in its applicability on condition that the Snoezelen therapy is connected with a competent Snoezelen therapist and with a set of necessary sensory aids that are mobile and usable anytime in contrast with static Snoezelen rooms, which are, of course, irreplaceable units but prevalingly unavailable to most of clients.

This lecture originated as a result of actual operation on the field of Snoezelen therapy directly at the patient within the last year (at the client's bed in the environment of spa or home environment of a child with disability).

### **Areas of activities and Sets for different areas**

Point of departure for this lecture is grounded in practical experience and videos taken during my Snoezelen operation. To be specific, my activities include spheres of an early care in home environment (new born and infant period); children with combined disability (from 0 – 12 years); children with severe mental retardation (15 – 18 years); clients after apoplexy, seniors with an array of dementia forms mostly placed into their home environment.

In order to start with this type of work it was essential to provide a set of appropriate Snoezelen aids such as tactile-kinaesthetic, sensory, technical, aids for special pedagogy, etc. The set of aids has been divided according to the age of clients as follows:

#### **Mobile Snoezelen set for early care**

The basic adjustable and activation aid was developed considering the fact that until the child reaches age of three its motor activity influences cognitive functions. Therefore, I have developed a mat which motivates to reflexive motion, especially to crawling. This mat is laid on a desk equipped with surface for balancing or wheels for easy manipulation. It is also appropriate for being inserted into a cot.

- a. Part of a set is a sky with stars sewn into a frame which can be hung. Moreover, from the shorter side of the sky with stars is a screen placed. The other three sides of the sky are decorated with airy canopies.

OR

- b. frame for projection is placed to the head of the bed with simple, universal hitch that can be fastened to a cot, and also a canopy which can be hung as well.

Tripod with a lamp fixed on it for the purpose of lighting up the mirror fish serves as a hitch of Space projector.

#### **Mobile Snoezelen set for children**

A frame of mobile Snoezelen environment with projecting screen and a canopy. Adjustable ball sack with tactile-haptic blanket of the adequate dimensions.

#### **Mobile Snoezelen set for rehabilitation with a client bound to a bed**

The set comprises pocket organiser for aids and photos for the work with psychobiography, hanging canopy and a frame for projection with universal bed hitch.

Technical aids, aids for special pedagogy and other aids included in all the above mentioned cases are in principle the same. Alteration of aids grounded in the assessment of client's diagnosis is required.

Technical aids: Space projector, data projector, iPod, TV Wi-Fi, optical fibre of 2m-length, optical fibres Fiberufo, oil lamp, magma lamp of Ø 10cm, UV lamp, aroma lamp and oils.

Aids for special pedagogy: a heavy-duty blanket, a sack with grain, products of nature according to a theme of Snoezelen session, small art aids and aids suitable for theme of session.

From my point of view, such a simple structure of mobile sets enables Snoezelen therapy to spread considerably to clients and to each location where former Snoezelen treatment was not possible due to its material obstacles.

In such a concept, the Snoezelen therapy possesses more joyous future perspective.

## Video – description of practice

The following video captures procedure of Snoezelen treatment carried out by a skilled therapist working with a patient who suffered a stroke with left-sided hemiparesis, hypertension glaucoma in 2010. This man is a technical engineer, aged 65, who was used to living a very active way of life. Immediately after the apoplexy he was strongly motivated to rehabilitation by desire to return to his job. However, due to an inappropriately chosen plan of rehabilitation procedure, the desired results of treatment had not met client's expectations and therefore, motivation to the intensive rehabilitation was slowly decreasing until he reached the apathy stage and had no interest in his recovery anymore. The Snoezelen therapist was addressed whether she could apply the Snoezelen concept and with its help to motivate the patient to work on himself.

As the patient refused to visit a Snoezelen room, the therapy took place directly at his bed. The aids were chosen in accordance with the abovementioned Snoezelen sets of aids.

### First video:

The Snoezelen therapist asked the man to try putting a sea shell into his hand. It is obvious from the video how strongly the man is trying to push the shell into his hand without any success despite increased effort. The man comments on his failure: “ I cannot make it, my hand is dead, I feel nothing.“

### Second video:

The Snoezelen therapist put the man's left hand on a magma ball. After a while he said that he feels soft tingling in his fingers. The therapist therefore replied that if he has pins and needles in his hand it means that his hand cannot be dead as he falsely assumed. The patient agreed with the point she made.

### Third video:

The Snoezelen therapist inserted a plastic cylinder with a colourful oil inside creating interesting patterns into patient's hand. The video clearly shows that man's interest has risen. He had himself explained the function of interesting light and technical equipment of the Snoezelen therapeutic set.

**Fourth video:**

The Snoezelen therapist put a bowl of shells under the client's left hand while she kept on talking to him about the show going on the screen at the bed's head. In the middle of the dialogue, she asked the patient whether he could reach into the bowl and pass her a shell. The client made this movement spontaneously. After such a positive experience he was truly shocked and started to believe that the therapy can really have positive results. We therefore, with the help of the Snoezelen therapy, managed to prepare the client for further intensive rehabilitation with the desired outcomes he could believe in based on his own positive experience.

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## The Snoezelen-Multisensory approach in 24h Dementia care

### Snoezelen with elderly people and people with dementia

General information about the care for demented elderly in the Netherlands and theoretical background of Snoezelen in the care for demented elderly people. Information about Snoezelen as an integrated activity in the daily program of nursing homes. Benefits of added activities.

Methods: basic elements of perception (perception and processing) effects of materials, methods of presentation and realisation, accompaniment and guidance, observation of behaviour

### Staff training

How to introduce Snoezelen and Snoezelen equipment to members of staff

Presentation, visual impression and presentation, reflection, training and supervision.

### Research and pilot studies

Recently research in the field of Snoezelen, research projects, observation- and measurement procedures, methodical procedure, bio signal acquisition and analysis, aims of different pilot studies. Results of the research of Snoezelen in the 24-hour dementia care

In Snoezelen the focus lies with the companion who supports people equally. In daily practice there is always the danger that one directs and steers too much. During Snoezelen it is much more important, to observe carefully, how a disabled person responds to his/her surroundings. A person in a wheelchair for example will not oppose when she's moved somewhere, she will not complain, one could move her anywhere without her resistance. But we don't know very much about that disabled person, she can't tell us what affect her surroundings have on her, what she experiences and feels within her body. It could be very disappointing when an offer is planned and designed vigorously but then suddenly it is not accepted. One had studied everything, made experiences and now one has to step back a few steps and start again. One is trained in methods, in specific didactic, has learned to work with verbalised objectives and then one has to forget all that for the time being. For many members of staff that represent, a big problem. We have to learn to adjust to the level of a disabled person and to relax as well. That also causes problems for many staff members.

Initially Snoezelen was a purely passive experience. But in recent years that has changed and the trend goes to a more active influence on the part of the companion. This "new concept" fully respects the individuality of people with severe and multiple disabilities. The active behaviour of the companion is based on years of practical experience in dealing with people with severe and multiple disabilities. We have learned to understand the subtle signs in their body language and are able to remain as objective as possible in enabling and supporting them.

### **The Snoezelen Centre at De Hartenberg**

Since February 1983 in De Hartenberg near Ede is a big Snoezelen Centre in operation.

This Snoezelen Centre was intensely used up until September 2000. Since September 2000 a completely new room of approximately 410 metres square is in operation.

One then decided consciously, for central Snoezelen premises as part of the daily activity concept. The centre is open daily from nine in the morning until five in the afternoon. There is no set timetable.

Besides the permanent available Snoezelen Centre there are enough opportunities to practise Snoezelen in natural living and life situations in the daily contact with the residents as well as in temporarily installed Snoezelen rooms in the living quarters.

The new Snoezelen Centre has four rooms: a visual room, or the so called white room, a tactile/ auditory room with sound effects, a corridor with different materials and a ball pond room.

### **Snoezelen in the care for people with dementia**

Snoezelen in several research studies has shown the positive effectiveness of the method with patients who have Alzheimer's dementia. Furthermore, much research has been done in this area and therefore, caution must be exercised on whether or not Snoezelen will work with different facilities. Though these studies do produce positive results in certain areas, it does not prove effectiveness in other important areas. A caregiver or occupational therapist must analyse the available research on Snoezelen, including the results that pertain specifically to their site and population in order to provide the best possible treatment options for each individual. Though Snoezelen can be used in many different settings including outpatient, institutional, long-term care and skilled nursing facilities it is more important to focus on the specific target behaviours you want to treat and answer the question of whether or not Snoezelen can do assist in improving or maintaining those behaviours.

More research should be done in this area to continue to prove or disprove the effectiveness of Snoezelen. This is important because of the significant increase in the geriatric population and as a result a possible increase in the amount of individuals that suffer from Alzheimer's disease. By completing more research on the effectiveness of Snoezelen caregivers and occupational therapists could be at the forefront of developing programs, set-up manuals, and start up kits geared towards these individuals and their families. Snoezelen is a great way for students to integrate many different concepts involved with occupational therapy such as sensory integration, client-centred practice, community and institutionalised needs, psychosocial factors, and neurological functions.

Caregivers and occupational therapists could provide educational sessions about the option of incorporating the Snoezelen method in rehabilitative care or designing smaller and less complex rooms within adult day programs, churches, or community centres. From recent study, Snoezelen has proven to be effective in decreasing the amount of disruptive and aggressive behaviours among individuals with Alzheimer's disease. With a decrease in such disruptive behaviours caregivers will be more able to appropriately care for their loved ones at home and within the community. In conclusion these results point out that Snoezelen has also positive effects on the quality or working life of staff members in psychogeriatric care.

Further studies are needed in order to provide more definite answers on the validity of the Snoezelen method. It would be helpful to prolong the study



and increase the sample size in order to better interpret the benefits of the Snoezelen. In addition, further studies on all environmental interventions related to Alzheimer's disease will provide supplementary information on performance, affect, and cognition.

## Summary

Main philosophy and history of Snoezelen. A short survey of the Snoezelen Centre De Hartenberg in Ede, the Netherlands. The development of Snoezelen and the first permanent available Snoezelen rooms.

The practise of Snoezelen in the care for people with dementia and some results of scientific research on the effects of Snoezelen.

Key words: Snoezelen / Multi Sensory Environment / Multi Sensory Enrichment / Multi Sensory Stimulation / tactile / visual / auditory / caregivers / occupational therapists / dementia / Alzheimer / psychogeriatric care / 24 hour care for people with dementia



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## A trip between educability and body expression in multisensory environments

### Purpose of the job

This study aims to determine the causal interrelation of terms EDUCABILITY – BODY EXPRESSION – ENVIRONMENTS MULTISENSORY (Snoezelen), promoting the stimulation of sensory channels, allowing the opening of new channels of sensation, perception and exploration through sensory experiences rewarding and enriching for improving the quality of life.

In Multisensory Stimulation, the person builds his Life Project under the principle of non-directivity, i.e., the person choose what actions want to perform from sensory experience. In this way, we can communicate with the other, "to educate the other," from his inner self-nature, according to their desires, expectations, needs, and not from our vision of imposing knowledge no other choice.

***"A trip between educability and body expression in multisensory environments"***

### Justification of work

The ontological conception of personhood enables the understanding of the human being in openness to internal and external influences of the inner self and the socio cultural surrounding. Thus, man is viewed as a person with a very rich nature not only with experiences but also the same pop situational context in which it operates.

The person deprived of any sensory and physical function can learn counting with single nature that is born, being essential requirement provide

a stimulating environment and motivating significant learning of which, even in its condition of privacy functional, can be enriched from multisensory stimuli with options of freedom in elections, under the principle of respecting their needs and interests (as proposed by Snoezelen "principle of non-directivity")

The multisensory environments will: raise awareness, awakening and optimize the functioning of the following areas a) socio-emotional area; b) psychomotor area, c) cognitive area, d) language area, that is the integral development of the person: discovering, knowing and understanding that shapes their reality, especially within the reach of their perception and experience.

Compensatory educational interventions through bodily expressions will be transcendent and authentic alternative systems will configure reception of significant information.

The multisensory environments favour and will enhance the curriculum development as well as compensatory perceptual and sensory abilities.

## **Development work**

### **The educability**

The concept of educability, according to the western philosophical tradition, is seen as "the ability, willingness or ductility of the individual to be influenced." This characterizes the human being as the only being able to educate themselves and thus make viable the educational process.

Educability is personal, it is proper to each person to be, comes from the person and not outside of it. It carries meaning and communication needs. It is necessary because it humanizes and identifies the man.

Freire said that to be educable is to be ontologically complete. He conceived educability from conceptualization of "educational action as political and emancipator action that enables individual and collective transformation".

We can say that "Everyone can learn" – "Everybody knows something" – "People is responsible for the construction of knowledge and give new meaning to what they learn" – "You learn when the learner has a Life Project where that knowledge is significant and reaches to express it". The expression of human nature is given by the plasticity it has and necessarily involves having an educational action.

Already said Narodowski and Ferreyra (2001): "For Comenius, the whole man, both his soul and his body, have as the ultimate goal to know. Man

is constituted in a way, understanding and meaning, whose purpose is to understand the visible world. Man has a destiny since their constitutive nature predisposes towards it. Both his understanding like his senses give the man that ability, and desire necessarily appears as the purpose of both orient towards it".

The Warnock report reveals that "... educability is not limited to a specific population privilege, instead a distinctive and inherent feature of the human species. There is no person without this possibility, while there's life there will be changes. Nor are there any pre-requisites or barriers if the adult strives in communication, especially if the other firmly committed. The human being is an unfinished being, it is formed and enriched by the experiences of its surrounding environment.

### **Educability and multi-sensory stimulation**

Multisensory stimulation takes place in the sensory brain areas from the information that constantly reaches from each of the parts of our body and the environment.

The information comes from the collection of the sense organs must be integrated to be "significant", namely must become into organized and intelligible perceptions. The brain structures are the ones which are located, classify and organize the sensory inflow. Feelings are electric currents stimuli that convert into nerve impulses that transmit from neuron to neuron to form an ascending chain from the sensory organ to different areas of the brain.

The integration of sensations can produce adaptive and learning behaviours. Allows the proper functioning of the brain and body relative to the surrounding medium.

The sensation is information, an elementary state of knowledge caused by the direct action of the stimulus on the sensory organs.

The information that the person has of his environment comes from contributions from sensory channels.

Through the sense we receive the first information of the environment and the sensations and perceptions are developed, which are the basic processes of knowledge. People incorporate experiences and discover the world around him from exploring it from the sensory perceptual – sensor motor. From sensations and perceptions are formed higher processes of knowledge, intelligence and language. It is therefore important to stimulate and exercise the senses, to improve the cognitive world of the learner.

*"We do not perceive the physical world as it is, but perceive what that world is to us.... we perceive our world ... our ecological reality, not all physical reality as is itself ..."*

The feeling allows contact with reality, however, does not guarantee its comprehension since thought must organize the information received to obtain significance.

### **Brain – Multisensory Stimulation – Learning**

Environmental stimuli that are recorded by the organs of each individual are the most important for structural brain growth stimulation". (Fröhlich)

Among the various brain nerve cells grow fibres that can bind with the fibres of other cells, form synaptic connections and on these synaptic connections a network of nerve cells is formed. Although when the type and training of this network are biologically determined, the density of the network and thus performance capacity depends significantly on the influence of the environment.

*"Learning does not depend on both the child and our ability to design motivating environments, with functional objectives, intrinsically meaningful activities. Education is a right that all human beings possess. "A goal of education is to increase awareness that the child has in the world in which he lives, like his imaginative understanding of the possibilities of that world". (Warnock, 1990)*

*"... Therefore, when we are dealing with a person, regardless of their appearance, over his diagnosis, and although we do not appreciate observable changes, we always think that there is a person who lives, feels, fights, loves, suffers, enjoys ... and although our eyes do not allow us to witness changes to our stimuli, for respect to that person we have to continue motivating, knowing that somehow his brain picks up stimuli, we assume that there is always a possibility to move its neuronal circuits, and we want to be in touch with him. We are all educable, we can all learn. Advances in Science attached to the tireless work of many educators lead us to the concept of educability, extends to every human being regardless of its features, is now an incontestable reality. Education has no limits ...".*

**Functions to work:****1. Attention**

Attention is the mechanism by which the SNC may be alert, attentive, and vigilant, with ability to learn and focus the awareness of stimuli from both inside and outside.

In order to properly address the person has to achieve:

- a. Be on alert to perceive different stimuli.
- b. Aimed correctly match to the stimulus corresponding at that time.
- c. Search selectively and specifically his attention to achieving a goal.

Inside the Multisensory Room, some stimuli that allow us to stimulate attention is its different stages are:

The bubble tube

Reflective Ball

Projector Figures

Fibre Optics

Aroma diffuser

Background music

With these stimuli can work as follows:

**PRACTICE:**

**1.1** With closed eyes (this helps to focus attention on a single stimulus) to discriminate different sounds: high, low, loud, soft. What I hear; what do I remember? what makes me feel?

Eyes closed: discriminate different fragrances.

**1.2 Musical Instruments**

With eyes closed, listening to music and move to the beat. We make gentle movements, involving many body parts as possible.

**1.3** We hit gently with fingertips, our source, our ears, our pear, the tips of our noses and we see the same patten is felt and perceived in different ways

Observed for a certain amount of time the projections generated by a projected figure. The goal is for the client to achieve rule out other stimuli that interfere with the activity at the time and develop focused attention.

**1.4** With eyes closed, discriminate textures, shapes, sizes of different elements.

**1.5** With closed ears feel the vibrations produced the music or different sounds.

**1.6** In silence, recognize and feel the sounds and movements of the body.

## **2. Memory:**

It is the ability of the SNC to establish, organize and update (recall) and / or acknowledge our psychic past events.

### **PRACTICE**

**2.1** Observe and try to memorize the sequence of colours of different elements that show in colour sequence, and then sequentially changing the figures.

Working with closed eyes and feeling with the hands and / or feet different elements and textures. Then try to remember that elements touched.

**2.2** We get in front of a person and created our own mirror.

- a. Establish sequences of moves, then we come back and create the same sequence without looking.
- b. Establish sequences of sounds with various parts of our body according to the sound used is the movement that our body responds.
- c. Play a sequence of sounds while doing a move. Then, while hearing a sound, you have to say what movement to do.

## **3. Language and understanding:**

Upon exposure to different stimuli promote dialogue and sharing experience: What do I see? What do I hear? How do I feel? Is there music? How is the music? What makes me remember?

### **The notions that may work are:**

#### PRACTICE

**3.1 UP-DOWN:** I lie on the floor and stand up. Take my arms up when I hear a sound of nature; down when I do not listen.

Perceiving a before and after: observe and remember colours sequence. Which comes first? What comes next? After work in the room we remember what we did when we enter? Then what happened? What happened first?

#### **Notions of time, space, quantity.**

Exploration of space: I travel as I can / want the space of the room. ¿ Is it big or small? ¿What spaces do I know as big as this? ¿Would enter here a bike, a car, a train?

**3.2 Inside-outside:** an imaginary circle, game in and out. I take out balls and put them back. What part of my body is in and what out?

#### **Notions of quantity, order.**

**3.3 Practice:** Put an element next to another in horizontal line.

**3.4 For the vertical space:** I stand by my partner and compare my height. I am taller? I am lower? ¿ How much I lack to attain it? What other things do I know as high as him? Who is highest and lowest in the room?

**3.5 Handling in two directions:** when music sounds I walk forward. When music goes away I walk backwards.

**3.6 My partner walks forward and I walk in the opposite direction.**

It is important to anticipate the time remaining in the work of the room so they can go incorporating and understanding the use of time.

### **4. Motor:**

#### PRACTICE

**4.1** Walk across the room to the beat of the music. When it stops I stand still in place.

**4.2** Walk. When the music stops I touch my nose; when the music continues I touch my ears and sit in the place of a fellow, greet a fellow ... view setpoint change.



**4.3** With eyes closed, go pointing different parts of the body, or discover where a stimulus perches. (example; a ball in hand).

Imitation of gestures and poses in front of the mirror.

These activities promote self-knowledge and thus develop greater self-esteem and greater self-reliance.

## Overall conclusions

### A Trip Between Educability and Body Expression in Multisensory Environments

Speaking of educability necessarily speak of human beings capable of learning, the educability is conceived as a tool that allows you to receive influences and act accordingly. The Educability is inherent to human nature.

For this human condition is that man can learn. But learning has to be meaningful of experiences that allow building knowledge from the choice and discovery. The learner becomes the protagonist of their learning.

Coinciding with Paulo Freire, "the human being is fundamentally subject and object of education: men and women are educable to the extent that they are recognized as unfinished, in need of a transformative praxis". "Education, freed from all the alienating features, should be a force enabler of change and momentum is freedom."

In Multisensory Stimulation, the person builds his Life Project under the principle of non-directivity, i.e., the person choose what actions want to perform from sensory experience. In this way, we can communicate with the other, "to educate the other," from his inner self-nature, according to their desires, expectations, needs, and not from our vision of imposing knowledge no other choice. "To deny this possibility so obvious leads unfortunately to restrict environmental stimuli."

Since the pedagogue of liberation, Paulo Freire, expressed about education: "The claim that things are so because they cannot be otherwise is hideously fatalistic"; "The question is how to transform difficulties into opportunities," Education needs both technical, scientific and professional dreams and utopia".

In Multisensory or Snoezelen rooms, seeks to create an enabling environment for people participation, autonomy, independence, their capacity of choosing. "An environment that allows them through the sensory experience itself establishes communication with the environment." "It seeks to strengthen the development favouring the integration of sensory informa-

tion they receive, thereby assisting their learning and their relationship to the environment because the way the discovery is working in an atmosphere of encouragement, where exploration is provided, and enjoy different sensory experiences. Wanted a sensory awakening itself through sensory experience ..."

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# **WORKSHOP ABSTRACTS AND PAPERS**





**David Groupe**, Switzerland

President of ISNA Switzerland, Bachelor of Arts in Rehabilitation,  
Teacher for children and teenagers with special needs,  
Specialist for Snoezelen with people having a mental or/and physical handicap

## **Travelling your imagination – how to take a tour of your imagination in a snoezelen room/mse**

This workshop will give you an insight on how to use a Snoezelen room/ MSE as a perfect vehicle to travel your imagination. Stories accompanying a massage provide stimulation and relaxation at the same time. They are appreciated by many clients: young children with or without disabilities, adults in their leisure time as well as elderly people with or without dementia.

This presentation will show you various possibilities; we will experience some of the positive effects together and you can learn how you can adapt them for your own clients.

In the second part the workshop we are going to take you on a journey into your imagination. We are going to experience our inner and outer bodies at the same time, experiencing how this feels and see how you can bring this great form of relaxation to others!

**Mandy Williams**

Senior Clinician – Occupational Therapy,  
Scope's Communication Resource Centre,  
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## People go to places because they are worth visiting

### Brief workshop description

This workshop will describe the experience of using a participatory design approach to create a “sensory garden” with a group of adults with profound intellectual and multiple disabilities (PIMD) and their support staff at an adult day support service in Melbourne, Australia.

### This workshop will

1. Describe the key strategies used in the participatory design process
2. Illustrate the outcomes with personal stories.
3. Share the resources we used

It will also challenge the use of the term “sensory garden” proposing that the sensory elements identified and embedded in the design are only one part of the design features that create a place worth visiting.

The general topic that would be most suitable for this workshop is c. including clients in participatory planning and design for MSE's

### Learning outcomes

Participants will be able to...

4. Identify key strategies used to engage adults with PIMD in the participatory design process

5. Identify key strategies used to engage staff in the participatory design process
6. Identify resources that underpin the participatory process.

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**Maria Jose Cid**

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President of ISNA-SPAIN, Member ISNA Board.

**Montserrat Cervellera, APASA, PHISIOTERAPIST & PSYCOMOTRICIST**

## **Snoezelen culture in one institution for people with intellectual mental disabilities**

### **Snoezelen culture in an institution**

In 2001 the Apasa to create a Snoezelen Room, specially designed for people resident adults with severe disruptions and less opportunity to enjoy other activities. In this workshop , we aim to show that today , 13 years later, we can say with my mouth wide open Snoezelen intervention that ended up being a philosophy of intervention, the backbone of most of the activities entity . Noted also that from this perspective has undertaken a profound change for both people attended , to the team who work as well and specially for families ; without noting that Spain are level as a reference in the field , not just in the world of ID but also in the world of older people with dementia and Alzheimer's in particular.

The Snoezelen “culture” has one important effect in:

- The team of apasa, specially on the auxiliars.
- Effects and changes caused by the " look Snoezelen " in the family of users served.
- Effects and changes caused by the " look Snoezelen " in the users served.
- Effects and changes caused by the " look Snoezelen " in the dissemination of the external entity.



**Lorraine Thomas**

M.A., Snoezelen Coordinator

Holland Bloorview Kids Rehabilitation Hospital

150 Kilgour Road, Toronto, Ontario, Canada

## **Making Snoezelen technology accessible to all: supporting healthy lifestyles in a supportive and interactive community**

### **Video conference**

#### **Abstract**

We all recognize that snoezelen environments give participants a space to learn and explore and that they can be an essential part of supporting healthy lifestyles in a community. However, the community or organization must itself be supportive and interactive. This workshop will look at how agencies and organizations can make expensive snoezelen /MSE technology accessible to the larger community, while maintaining the best practices in room use and development.

At the end of the workshop, participants will have a better understanding of what needs to be considered in developing financially sustainable Snoezelen/MSE resources for community use; what to consider in adapting MSE training to the needs of the community; and explore the what is the purpose of a community based snoezelen facility as opposed to scientific/pedagogic considerations.





**Kristiina Mäntynen**

Architect MA, Feng Shui Consultant

Studio: Eerikinkatu 29, Lh 7

Home/Mailing Address: Eerikinkatu 44 A 9,  
00180 Helsinki, Finland

## **Feng Shui tools for intelligent use of space: Building wellbeing by using the ancient Chinese principles**

### **Workshop content:**

Feng Shui is often considered to be just a tool for interior design. It is that, but also much more. How we use the space is often more important than what is in the space.

In this workshop, the very basic and the most important Feng Shui concepts are presented. These include qi, shaqi, yin/yang and "four animal theory". These concepts can easily be used to "read" every space we are in. After having words to describe the situation, the knowledge can be applied to enhance the wellbeing of the people using the space – whatever their needs and abilities may be.

Plans and/or photos about multisensory spaces, or any other spaces that are of interest to the participants, can be sent in advance to the presenter. Some of them can then be used as examples during the workshop. The scale of the examples is irrelevant, the cases can vary from one room to whole buildings or institutions. However, interiors may probably interest majority of the participants. It is recommended that the cases are sent at least one month before the conference.

By using some very basic Chinese concepts the participants will be able to read every space they are in in a more structured way. This will enable them to make logical, practical, user-centered, conscious and subtle changes into a space, if needed.

**Anthony M. McCrovitz**

PhD, LMHC, Globe Star, Executive Director  
Purdue North Central University, Adjunct Professor School of Psychology  
621 Broadway, Chesterton, IN 46304, USA

## The brain connection: Perspectives from affective neuroscience in our Snoezelen model

### Brief presentation

Current neuroscience research offers much ground breaking material for reconstructing therapeutic models that support human brain architecture and development, shaped by experiences throughout one's life.

An understanding of how this is all connected and how the brain functions and processes these connections is important as we discover the relationships that contribute to the construction (and collapse) of these neurotransmitting connections that enrich (or destroy) quality of life for our clients.

The unprecedented literature provides a solid foundation for understanding the significance of human relationships and their central role in brain development (Goswami, 2008). The positive and negative relationships with the self and others have a major impact on the brain's growth (McCain et al., 2007).

The more we understand about neurophysiology and organization of the brain, the better we can understand from a physiological standpoint, the various cognitive, behavioral and emotional problems our clients can experience, and learn how we can align and adjust our own therapeutic lens with cutting edge brain research.

Recent research indicates that successful therapy relies on affect regulation and the majority of mental health concerns are disorders of affect regulation (Davidson et al., 2000).

The presenter will outline a Biopsychosocial Snoezelen process and a new assessment tool that integrates the current neuroscience framework and will address the client's quality of life by illustrating a model that applies the framework of Gentle Teaching for identifying and integrating these connections for the client, generating a transformative awakening for one's quality of life.

The presenter will outline a Biopsychosocial Snoezelen process and a new assessment tool that integrates the current neuroscience framework and will address the client's quality of life by illustrating a model that applies the framework of Gentle Teaching for identifying and integrating these connections for the client, generating a transformative awakening for one's quality of life.



**Michel Théroux**  
Recréologist,  
1491, boulevard René-Gaultier  
Varenes, Québec, Canada

## **A manner to customize Snoezelen material for adult persons with severe disabilities**

From my own experience in Snoezelen, I will present a manner to determine the material you need for your clients and show some handmade materials to reach it. The workshop presents the way I reach it by the presentation of exercises done on two years with 6 adults with severe mental disabilities. The result is that I was able to offer those 6 persons some interesting material.

The participant will be able to explore persons with severe mental disabilities or others specific problems to find what kind of material they prefer.



**Katijana Harasic**

Instructor for „Integrative Validation“

Trainer "Basale Stimulation", Lecturer for Snoezelen

ISNA Switzerland, Co-Founder and Representant of ISNA Switzerland

Kirchmattstrasse 42, 6312 Steinhausen, Switzerland

## How to use snoezelen/mse for people with dementia

People with dementia often seem to be stressed and lost in their environments. They have difficulties to understand what happens inside them and around them. They often feel the need to go home, take care of their children or do their work. Snoezelen tries to give them a place of well-being and happiness, a place to feel a high quality of life. Snoezelen gives the possibility to escape their everyday challenge. Snoezelen offers relaxation and stimulation in a special atmosphere of communication. This needs a companion who listens to the people's needs, even though the "language of words" might already be lost due to the dementia.

This workshop gives you an insight how to adopt the Snoezelen sessions for people with dementia, using their resources, their experiences and their personal biography. The workshop discusses how to deal with anxiety and emotional releases during Snoezelen sessions.

**Abel Poleo Romero**

Surgeon, Director of Medical Research

Center Space Delight Clinical Venezuela; Neuropsychologist. Venezuela.

Vice President Latin America ISNA-MSE

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## **Model of sensory integration therapy to modulate stress. Faced with the social upheaval of Venezuela 2014**

In Venezuela the first room snoezelen was created in 2012. **OBJECTIVE:** To describe stress management multisensory environment with patients attending the Neuropsychological consultation, social outbreak of Venezuela. Study of 16 sections with four groups divided by sex: (A) 110 female. (B) 98 male, and two controls, (C) and (D) groups. The study was based on the basic category of the transactional model of Lazarus Coping. A group (C) and (D) multisensory therapy is not applied. He takes the levels of the hormone cortisol, before and after. **RESULTS:** Groups A and B: Posterior Snoezelen, the scale was 3, largely handle stress. Cortisol levels by 82% of the previously altered multisensory therapies after participants obtained 79% normal levels. The feeling of all patients is of joy, pleasure and fulfilment. he feeling of all patients is of joy, pleasure and fulfilment.



**Rivki Keesing**  
Israel  
rivki@aleh-israel.org

## Multisensory environment around the clock

ALEH was founded on the belief that every individual, regardless of degree of disability, is equally deserving of love and respect, and deserves the opportunity to develop to full potential and enjoy the highest standard of care and quality of life. ALEH's programs, individually tailored and age-appropriate, encourage independence and provide exposure to a variety of experiences.

ALEH operates on the principle that in order to maximize the experiential effectiveness of learning alongside enjoyment, every program must include sensory components. The myriad options for treatments and therapies incorporate multi-sensory tools and content.

In this lecture I will briefly describe the Snoezelen rooms at ALEH, and the therapies and treatments they provide, and I will try to convey just a small sample of the many multi-sensory programs available, which enable residents to experience the world like their non-disabled peers.

1. Adaptive Technology at ALEH – the place of technology and how it enables children and young adults with severe Intellectual and developmental disabilities to participate and enjoy maximal independence within their daily learning environment and in leisure time activities
2. “Talking Library” – Enjoyment the beauty and wonder of a good book is key in the development of every child – it enriches imagination, broadens horizons, teaches and relaxes, regardless of age. In this lecture, I will present the concept and function of different books ALEH has adapted for use with children with motoric dis-

abilities, CVI, and emotional distress, demonstrating the story in a multi-sensory manner.

3. **Adapting the Learning Environment** – A majority of the students and children at ALEH demonstrated challenging behaviours; this keeps them from enjoying and participating in group activities around them. By adapting the learning environment to meet their abilities and needs, we have seen progress in their ability to engage in the activities, along with a commensurate increase in their learning ability.

This lecture will present these programs, and how they have helped children and young adults with intellectual and developmental disabilities to advance.





Leena Koskimäki, Timo Niemelä & Merja Salminen  
HAMK, Finland

## Play and learn: getting empowered by interaction and motion – case Kinect

The workshop takes place in Virvelinranta, which is the Centre of development, resource and services for the disabled people. The workshop's aim is to introduce the motion-sensing input device Kinect as a tool to inspire exercising, players' body awareness and to create a sense of community.

Workshop participants have also an opportunity to test and have an experience to play games using Kinect. At the end of the session we'll have short discussion of the experiences and feedback.

<http://www.hamk.fi/tyoelamalle/hankkeet/avoimuudesta-voimaa-oppimisverkostoihin/Sivut/default.aspx>



Virvelinranta photos from <http://virvelinranta.fi/>



**Mikko Romppanen**  
Master of Science (Music Therapy),  
Full Time Lecturer HAMK, Finland

## Music and soundscapes as multisensory experience

All our senses are present when we make music. Body, Mind and Spirit are all interconnected in auditory experiences in Music and Soundscapes. Welcome to hear, see, touch and taste and taste Music and sounds in this experimental workshop.

In this experimental workshop we do different kind of rehearsals with music and soundscapes. We concentrate in investigating connections between different senses and sounds (music). It is a known fact that some people can see music in colours or even smell music.

We investigate the forms and colours of music. We also study how to feel and taste music

We reach our goal with musical games and rehearsals. This includes moving to music, painting to music, touching to music. We also improvise and create soundscapes with body instruments and with our voices. We use different kind of instruments of different materials for improvising and making music. We get to know a Finnish innovation of figure notes, which enables everybody to play an instrument right away.

All you need is an open mind to participate this “ear-opening” workshop.

Participants will be able to learn different ways of using music and soundscapes as a part of multisensory work with different kind of target groups.



**Fernand Bruneau**  
Montreal, Quebec, Canada

## **Influence of a multisensory / Snoezelen approach on a day to day care in four psychogeriatric units within long term care facilities**

This workshop will present the influence of the multisensory / Snoezelen approaches on the day to day care in our four psychogeriatric units within long term care facilities.

We believe that if there is to be a long-term improvement in the residents' quality of life and to prevent depersonalisation and sensory alteration, the approaches must be applied continually in all aspects of the resident's daily life and not just during isolated activity sessions. This includes times dedicated to intimate care, during meals, during periods of relaxation, during special activities and during snoezelen sessions in our white room.

For our caregivers, integrating the approaches in all aspects of daily life means:

- To be resident-centred instead of task-oriented.
- To seek each instant to stimulate (and not over stimulate) the residents' senses.
- To create «sensory moments».
- To accompany the resident: "do with, not for, when possible " .

The approaches influence almost every aspect (philosophy of care, restraint-reduction, patient-centred care, adapting the environment, adapting the socio-recreational activities and more).



**Bibiana Beatriz Delahaye**

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## The child's learning through stimulus. The senses as a tool for exploring the world

This work at Snoezelen seeks to enhance positive relationships and improve quality of life. The goal is to achieve autonomy, tolerance, care, relaxation, control emotions, sensory perceptions, frustrations, learning and communication, in patients with no chronic encephalopathy evolutionary from 5 and 15 years.

It is performed by a team composed of occupational therapists, physiotherapists and speech therapists. The intervention was carried out in the White Snoezelen Room. The different professionals work together with each of the children individually and / or group in multisensory stimulation.

Through these activities children is achieved, despite his disability, to explore your body and they can do with it. They can experience the environment, the body and the objects used through different senses and / or systems: hearing, touch, vision, smell, vestibular and proprioceptive. Thus you enter the central nervous system in different ways to ensure that the information reaches the same and thus process different sensations and perceptions.

It is a learning within Snoezelen-MSE.

Learning Outcomes: Indicate what the audience will learn by participating in this presentation. "Participants will have the opportunity to observe how children with severe disabilities are able to experience and enhance their learning abilities."

**Päivi Sanerma**

EdD (University of Tampere 2009), MNcs, RN.

Dr. Sanerma 's research area is development of elderly home care. Her doctoral thesis was "Developing home care work by teamwork. Action research on fusion of a home care work organization and a home health care organisation". Currently her research topic is developing elderly home care by complex assessment. Her current position is researcher-principal lecturer in HAMK University of Applied Sciences

## **The Simulation pedagogic in nursing education in Feevale University, Brasil and in Hamk University off applied sciences, Finland**

Videoconference between Hämeenlinna and Feevale, Novo Hamburgo

Purpose of the workshop is to introduce the opportunity of simulation pedagogic in nursing education.

Nursing students in Feevale and Hämeenlinna have produced a video about their simulation practice.

The videos will be presented in the workshop. Students will participate the workshop and tell about their experience in simulation practice.

# POSTERS



**Tiina Mäenpää (a), Tuija Pirttijärvi (a), Eila Järvenpää (b), Raija Tahvonen (b) and Helena Kautola (a)**

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b) MTT Agrifood Research Finland, 31600 Jokioinen, Finland, firstname.lastname@mtt.fi

## **Sensory aspects in the survey study during the project optimised food products for elderly populations in Finland**

Good nutrition and overall welfare are important factors in quality of life for elderly people. In Finland the nutritional status of hospitalized elderly population has not been much studied, but at home independently living >65 years old people suffer less from malnutrition than those hospitalized (1). The improvement of the nutrition for the elderly by increasing knowledge of nutritional needs, food preferences, physical capacities and willingness are the aims of the EU-project OPTIFEL(2). This project focuses mostly on vegetable, fruit and berry products. A study on the preferable and enjoyable characteristics of food and the suitability in capability of the elderly using the packages were investigated (3). About 90 elderly >65 years old living either in home independently, home with food service or service houses/ nursing homes were interviewed on their eating preferences, capabilities and attitudes towards different food. The malnutrition was related to physiological and cognitive behaviour. More information: [www.optifel.eu](http://www.optifel.eu)

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**Minttu Rätty**, Lic.Ed, Senior Lecturer

**Tiina Wikström**, Lic.Phil., MA, Senior Lecturer

Laurea University of Applied Sciences, Ratatie 22, 01350 Vantaa, Finland

## Sharing a space of memories: multisensory space as an open learning environment

This poster describes a Finnish pedagogical development project of Laurea University of Applied Sciences, realized in co-operation with various learning institutes, municipalities and NGOs and attended by over 100 students. Its aim is to develop new, innovative methods for using multisensory open learning environments for different target groups and different contexts. In 2011 – 2014, the project is funded by The European Social Fund.

The key innovation of the project, “The Multisensory Space”, is an easily modified topic-related space, with different landscapes, sounds and objects of varied cultural environments, thus expanding the scope of Snoezelen-MSEs. During the shared creation process of the Multisensory Space, clients or students can discuss and make visible values, memories and individual experiences related to a theme or topic. The ready-made space makes then possible different inspiring and empowering encounters between different cultural and age groups, whether in, for example, learning institutions, libraries or museums.



PICTURE. A Cultural, multisensory tent at Laurea, University of Applied Sciences



**Pia-Nina Vekka and Paula Helin**

Members of Kanta-Hämeen MS yhdistys (association for multiple Sclerosis)

<http://www.k-hmsyhdistys.net/>

## Multisensory roadtrip for multiple sclerosis and rare diseases with electric mopeds

**Disability is not a roadblock, maybe not even a slowdown.  
Not the speed, but the style!**

In January 2011's freezing coldness we were thinking how to plan something nice for our association's members' summer. We created a Facebook page and challenged people to an event: "If 2000 people thumbs us, we'll drive with our electric mopeds from Hämeenlinna to Hollola". Within half a year the amount of people was reached. Quite many from social media followed our process of planning and throughout the road trip. We wanted to demonstrate that disability is not a 'roadblock' for doing things, maybe a slight slowdown to do things. Therefore, not the speed but the style! We managed to get stylish driving costumes, cool artificial fingernails and at the start, which was at the Hämeenlinna marketplace, we also got hairstyling and makeup. Also our mopeds were made up with the help of sponsor stickers.

The distance between Hämeenlinna market place and the medieval church of Hollola is approximately 70 kilometers. The mopeds speed up maximum 15 km / hour. Along the trip we had a break in a mall, where a physiotherapist showed us and several customers some stretching movements. During another pause in a forest site we made espresso with a travelers' espresso cooker.

The pictures we'll show, demonstrate the nice road trip we did during one summer day!



Pia-Nina and Paula controlling their Mopeds in summer 2011.

Laura Hallamaa, Miranna Venäläinen, Jemina Hautamäki & Vappu Rautiainen  
HAMK-Student's Project, Finland

## Multisensory Environments for children at Helmi cafeteria

This project was carried out by four second-year students in the Degree Programme in Social Services at HAMK University of Applied Sciences during autumn 2013 and spring 2014.

The co-operation partner in this project was Helmi-kahvila (Helmi cafeteria) which arranges peer group for families who have children with special needs. The basic idea is that there are instructors who provides activities for the children and meanwhile the parents can talk and share their ideas and experiences. The children were from 18 months to 13 years of age.

During this project six different multisensory environments were created. The sessions were held in HAMK's premises. A coherent theme for the activity sessions was travelling. The aim was to keep the structure of the activity sessions similar: a joint start-up, activities, guided sensory activities, relaxation and free time.

The topics were forest, the polar circle, the land of dinosaurs, the land of Christmas, and beach party.



Photo from beach party, HAMK's MSE



**Päivi Mäntyneva** (HAMK University of Applied Sciences) **Riikka Kekäläinen-Alkio** (HAMK University of Applied Sciences) and **Sari Rämö** (HAMK University of Applied Sciences)

Project partner in HAMK university of Applied Sciences  
Wellbeing, Degree Programme in Social Services  
Korkeakoulukatu 3, FI-13100 Hämeenlinna, FINLAND

## Wellbeing from nature – Green Care, empowerment and recreation in social care

Nature has many lasting positive and empowering effects on mind and body. The natural environment can be used in different ways to improve wellbeing in social care with groups and individuals from children to elderly. Animal assisted activities, nature education as part of early childhood education and forest pedagogy, the use of natural materials, experimental pedagogy, social farming, day activities in green environment and gardening activities are examples of used methods and arenas. What is common to the methods are that they are based on voluntary activity, by personal experiences and multisensory, organized activities or participation.

Even if the methods in Green Care are old in Finland, the umbrella concept of Green Care is quite new referring to the methods used in goal oriented, sustainable and responsible way for promoting wellbeing in different services: social and health care, tourism and recreation services. HAMK University of Applied Sciences, faculty of Wellbeing (HAMK) has been a partner in LIVE -project in 1.2.2013 – 31.12.2014. Project is funded by the Rural Development Programme for Mainland Finland 2007 – 2013. Aim of the LIVE-project has been to promote Green Care entrepreneurship in the country side in Häme, Uusimaa and Pirkanmaa region and arise awareness and knowledge and skills to use of Green Care methods. Partners in the project are TTS Work Efficiency Institute (coordinator), The Association of ProAgria Centres, LAMK University of Applied Sciences and HAMK.

LIVE-project has organized education especially about green care methods, workshops and three Green Care innovation arenas, which aims have been to promote awareness and knowledge of Green Care, introduce new innovative ideas and practices for Green Care and bring together people from public sector, non-governmental organizations, private sector and also

students in the University of Applied Sciences, who are interested in this theme. Students in HAMK and LAMK are making their final thesis in various areas of green care: e.g. forest pedagogy in pre-school, recreational use of farms and relationship to nature among families with small children and socio-pedagogical horse activity in everyday life of young people in a professional family home.

**Marketta Helin, Liseli Louhiala & Päivi Palokangas-Koisti**

Tavastia Vocational College, Hämeenlinna

[https://www.kktavastia.fi/portal/briefly\\_in\\_english](https://www.kktavastia.fi/portal/briefly_in_english)

## **Sensory and art experiences: A course for practical nursing students**

### **Introduction**

Sensory and aesthetic experiences are an essential part of well-being for many people. Practical nurses are keyworkers to use sensory and art methods in their working environments with, for example, children, elderly people and people with learning disabilities.

### **Aims**

To understand the meaning of sensory and art experiences for people  
To plan and apply multisensory methods at work  
To recognise and evaluate problems related to deficiencies in sensory perception

### **Contents**

Basic knowledge on sensory perception  
Principles and methods of multisensory work (MSW)  
Preparing materials for MSW  
Use of movement, music and visual art in MSW  
Advancing capabilities, meaningful life and professional development with person-centred planning (PCP)

### **Students' experiences and feedback**

*“ We learned new things and realized the importance of simple every-day life.”*

*“MSW is small things in daily care for clients.”*

*“Memorizing and experiencing together was empowering.”*

*“ My self-knowledge increased – my feelings aroused.”*

**Jaakko Salonen**

Communication Counselor, City of Helsinki, Services for the Disabled, Finland

## Finnish Multisensory Network – Multisenso

### A network is born

The Finnish Multisensory Network was formed in 2001 by **Killinmäki and Tikoteekki**. The first meeting was held in Helsingin keskuslaitos, Killinmäki, at Kirkkonummi. Killinmäki is an institution for people with intellectual and developmental disabilities. It is maintained by the City of Helsinki.



While Killinmäki hosted the meeting, **Tikoteekki** had contacts with people who were interested in multisensory work. Tikoteekki is a communication and technology Centre. It works at a local, national and international level. Tikoteekki is a part of Finnish Association for Intellectual and Developmental Disabilities (FAIDD).



There was a need to get the Snoezelen people in contact with each other. In the first meeting there was room for only 70 persons in Killinmäki. The amount of the participants had to be restricted! The Finnish Multisensory Network was in the beginning called Finnish Snoezelen Network, but it was later named MULTISENSO.

### How does it work?

Multisenso is a very loosely organized network. There is no chairperson, no budget, no membership fees, no membership list.

What we have is:

1. Internet site at [www.papunet.net](http://www.papunet.net)
2. Annual network meeting

## Papunet website



The Papunet web service unit promotes accessible and equitable communication. The unit develops and produces accessible web services for people with speech impairments or intellectual disabilities, users of plain language, their families and other people they interact with, as well as professionals and students in the field. Papunet is a part of FAIDD just like Tikoteekki.

Multisenso pages in Papunet offer a platform for having contact information and links on Finnish companies, individuals or places to visit that have something to do with multisensory work. There is of course a link to ISNA-MSE pages. (International Snoezelen Association – Multisensory Environment, and links to Nordic Snoezelen networks. There is also some general information on multisensory work and some hints on literature.



Annual Multisenso network meetings will be there as well as other important meetings or events that people need to be informed about like mutual Nordic Snoezelen meetings.

The contents and updating the pages are maintained by Jaakko Salonen from Multisenso network and Maija Ylätupa from Papunet web service unit.

## Annual Multisenso network meetings

Since 2001 there has been a network meeting almost every year. Lately over a hundred persons attend to meetings each year. There is a coordination group of three persons that organizes meetings and coordinates the program. Mainly meetings have been free of costs. Presenters are not paid and participants don't have to pay anything. Usually we find a host in the meeting who arranges premises without cost for next meeting.

Presentations are short and cover wide range of things that are happening in Finland, like new multisensory environments, devices and materials, developed methods and presentations of regional activities. Meetings also help people make personal contacts and keep the network alive.

Multisensory work has spread on various fields in Finland. Along with the more typical work with people with intellectual and developmental disabilities or elderly care also new fields have joined in like child welfare services and work with immigrants.



Saurofone was introduced in Multisenso annual meeting 2014 in Helsinki. Anyone could play it instantly.

1. Accessible instrument, developed by a Finnish performance artist Yrjänä Sauros
2. One piano string, amplification and effects
3. Heavy sounds with no prior musical background
4. You can hit or slide it with a solid iron bar



**Maria Vane-Tempest & Anne Pura**  
 Portsakoti, Finland

## Active Outdoor-group in MSE

**TURKU**  WELFARE DIVISION

### ACTIVE OUTDOORS-GROUP IN MSE

*Photos Anne Pura and Maria Vane- Tempest  
 Text: Anne Pura*

#### Active outdoors-group

4-5 participants with memory disorder. One physiotherapist and one occupational therapist as instructors, with addition of available practical nurses, students also acceptable. Once a week, length 30 minutes. A part of Multisensory activity in Portsakoti.

#### Goal:

Goal is to support the patients with memory disorders abilities by developing pleasant, motivational and diverse sense-activating outdoor practices. The purpose of the outdoor group is to able the patients to partake in pleasant activities according to their own customs and desires.

#### Means:

Pleasant and rehabilitating activity in a sense-activating environment. Exercises are familiar and easy to carry out. For reaching the objective there has been composed a track consisting of eight exercises which practice activity guidance, coordinator, fine motor coordinator (both fine and rough motor coordination), control of balance, perception, control of midriff, eye/hand co-operation and concentration. Each time participants take part in activities which they are comfortable partake in. Essential for the group is leisurely, encouraging feedback and conscious presence of fresh air and enjoyment of nature's sounds and scents.

#### Future:

Objective is to spread this operational model to all elderly centers as a part of the active everyday living of the elderly suffering of memory disorder.

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