KATEŘINA JANKŮ (ed.) • AGNIESZKA SMROKOWSKA-REICHMANN
RAMONA RIBES CASTELLS • MARÍA JOSÉ CID RODRIGUEZ

IMPLEMENTATION OF SNOEZELEN-MSE IN THE CZECH REPUBLIC, POLAND AND CATALONIA

Co-funded by the Erasmus+ Programme of the European Union

SILESIAN UNIVERSITY
FACULTY OF PUBLIC POLICIES IN OPAVA

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Implementation of Snoezelen – Multisensory Environment in the Czech Republic, Poland and Catalonia

SILESIAN UNIVERSITY
FACULTY OF PUBLIC POLICIES IN OPAVA

Akademia Wychowania Fizycznego im. Bronisława Czecha w Krakowie

Universitat de Lleida

Annotation
The main idea of this book is to expand the theory, current knowledge, and practice of the Snoezelen concept. The purpose of this collaborative work is to show Snoezelen as a supportive and effective tool in the hands of professionals of the partner helping professions – special education, psychology and occupational therapy. The main objective is to identify similarities and differences in the use of the Snoezelen philosophy and to show the special approach related to the Czech Republic, Poland and Catalonia. On the one hand, the publication is addressed to all those interested in this subject, on the other hand, it fills a gap in the space of academic monographs and handbooks and is aimed at students and academics. The publication is related to the outputs of the Erasmus+ project Support of the Snoezelen concept and its integration into university education 2020-1-CZ01-KA203-078267.

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PREFACE I

In more than 45 years, the concept of Snoezelen has developed into a phenomenon known all over the world. If you enter the keyword “Snoezelen” on the different search engines, you get more than 500,000 hits in more than 26 languages.

When my colleague Jan Hulsegge and I started the first set-up of Snoezelen in 1974 at the Centre De Hartenberg in Ede, the Netherlands, we could never have imagined that such a simple activity would grow into a worldwide known phenomenon.

We were inspired by the “passive world” of people with multiple intellectual disabilities, a world where not much more happened than lying in bed all day. The “living” environment consisted of a sterile hospital environment that was not very stimulating for the severely disabled person. We started looking for simple solutions to make this passive world more exciting. Originally, Snoezelen originated within the world of the severely multiple mentally disabled human being.

In the early 80s, many other target groups also became interested in Snoezelen. This development has been particularly rapid in the 24-hour care for elderly people with dementia.

Currently, a lot of scientific research has been and is being conducted worldwide into the effects of Snoezelen in people with intellectual disabilities and elderly people with dementia. The results are very positive, in particular a strong reduction in stereotypical behavior, clients are less apathetic, communication between the residents and with the employees has increased and there is a decrease in aggressive behavior, which has greatly reduced behavior-influencing medication. In particular, Snoezelen has given a strong incentive to the development of day care (occupational therapy) for this target group within the world of the very severely mentally disabled person and people in 24 hours dementia care.

A totally unexpected positive research result is the fact that the absenteeism of employees in departments, where Snoezelen is used as an integrated activity within the day program, is significantly lower than in other departments. There is a higher job satisfaction. In the care centers for people with intellectual disabilities and elderly people with dementia, in many countries worldwide, Snoezelen may or may not be fully integrated into the day program and can no longer be ignored in daily care.

In particular, intensive international cooperation has contributed to scientific research taking place in approximately 48 countries with approximately 28 universities. The exchange

via the internet and the meetings at the annual international conferences of the ISNA-MSE (the International Snoezelen Association/Multi Sensory Environment) have in a short time made a huge number of healthcare workers enthusiastic about Snoezelen.

This book shows a broad collaboration between scientists and professionals from different countries to get a broader picture of the effects and differences in application and method of Snoezelen on people with disabilities. This book is also a manual for anyone who wants to delve into Snoezelen and it is a guideline to apply Snoezelen in everyday practice. The book provides a strong theoretical basis for the Snoezelen phenomenon but also provides a lot of practical information.

I would like to congratulate the authors of this book. They also show the differences in the working method of Snoezelen in the different countries. They have provided an extensive document in the further development of Snoezelen.

I hope that I can meet many readers of this book at one of the congresses of the International Snoezelen Association and during courses that will undoubtedly be organized on the occasion of this book.

AD VERHEUL, CO-FOUNDER OF SNOEZELEN
EDE, THE NETHERLANDS, JULY 2023

PREFACE II

The book you are about to read is about using senses.

We are all sentient beings, and we experience ourselves, the world, our lives and community participation through our senses.

The five senses are the 'window to the brain' and communicate with the nervous system that develops throughout one's life. The constant flow of data obtained through our senses allows the brain to interpret our surroundings, giving us important tools for our survival and our ability to flourish.

A human being cannot thrive and will often retreat when the surrounding environment allows little or no sensory stimulation. In this way, any interruption of a human's interaction with the environment can inhibit development and joy of life (Lotan & Shapiro, 2005; Stephenson, 2002).

People with disabilities, in the use of senses, cognition, motor skills, perception ability, behavioural and comprehension ability, or with chronic pain, are inhibited in their interaction with the environment, and thus cut off from many sensory inputs that we otherwise take for granted (Fornes, 2009). For example, it is difficult for people with intellectual disabilities to create their own optimal environmental or sensory experiences, because their world is often restricted and, in many cases, controlled by others.

Intense periods of sensory stimulation over time, create neurological connections in the brain, where previously there were injuries or undeveloped areas. Through multi-sensory stimulation at an appropriate amount, intensity and duration, the brain's arousal and organization increases, enabling increased functionality, activity and learning. As formulated in Hebbs Law: "Neurons wire together if they fire together" (Löwel & Singer 1992).

The importance of the senses for learning is not a new idea. Aristoteles believed that knowledge is acquired through sensory experiences from the environment and that sensory information is the basis of all knowledge. Much later, Maria Montessori (1870–1952) argued that intellectual disabilities were partly the result of poor institutional environments that did not provide sensory stimulation, and therefore she believed that intellectual disabilities should be treated as a learning issue, rather than a medical problem.

I am proud to have been an inspiration, together with many others in the implementation of Snoezelen-mse in the The Czech Republic republic around 2000, in Tloskov near Praga. One of the first rooms was established there and I know this was an inspiration for many others.

Snoezelen-MSE can be used in many different ways.

The very skilled autors of this book, Kateřina Janků (ed.), Agnieszka Smrokowska-Reichmann, Ramona Ribes Castells and María José Cid Rodriguez, have, as a part of a European project, collected and developed knowledge, especially for people working in therapy.

The book is convincing and can for sure inspire to work in an effective way, in helping the people we serve grow in a relationship with the staff and the environment, instead of just being a traditional subject of a treatment and methods.

That is why isna-mse.org is grateful this book is written and recommends all our existing special teachers all over the world to use this book in the certification of students in our approved isna certification program.

MAURITS EIJGENDAAL, PRESIDENT
ISNA-MSE.ORG


illustrative photo

INTRODUCTION

In its most general sense, the Snoezelen method is a specific therapeutic procedure that aims to realize a positive interaction with the participant through multisensory stimulation. The method draws on the contributions of various helping professions and the pedagogical and therapeutic scientific disciplines. In this publication we present Snoezelen in connection with special education, occupational therapy and psychology, thanks to the involvement of experts and professionals from three countries – the Czech Republic, Poland and Spain. This different approach reflects the multidimensionality and diversity of the method itself, which, although it may seem simple at first glance, in fact requires considerable theoretical knowledge regarding the psychological, pedagogical and social dimensions, combined with practical application skills, supported by an empathetic and sensitive approach to the person as an equal human being.

The Snoezelen concept is intended primarily for people who are often difficult to communicate and maintain any kind of contact with, in a natural way, i.e. people with multiple and profound disabilities, with pervasive autistic disorders, with mental illness or dementia etc. At the very beginning, in the 1970s, the intuitive, and particularly practical, Snoezelen method, based on sensory stimulation, became a tool for innovative educators and care-givers looking for ways to develop their clients.

Knowing the historical context and the origin of the concept of Snoezelen helps us to understand and grasp its essential nature better and apply it in a realistic form. The current concept of Snoezelen has an increasingly strong research base, its theoretical basis has stabilised and in many cases it can be studied at the tertiary education level at universities.

The unofficial beginning of the work with Snoezelen is related to the work of American psychologists Cleland and Clark, who, in 1966, published the results of their research on the development and promotion of communication and social skills and abilities of clients with severe intellectual disabilities, and on changes in their behaviour due to the selected sensory stimuli. In this research, adults with developmental mental disorders were provided with visual, auditory, kinesthetic, tactile, and other stimuli in an appropriately designed room. These stimuli were intended to influence personality development. The environment in which sensory stimuli were offered began to be called the “Sensory Cafeteria” (cf. Cleland, Clark, 1966). It was this research that the Dutch Ad Verheul and Jan Hulsegge were drawing on when, in their own institutional care setting, they started to develop the offer of sensory stimuli as a spontaneous leisure activity for adults with more severe intellectual and combined disabilities at the Centre de Hartenberg’s Heeren Loo near the city of Ede in the central part

of the Netherlands (hereafter Hartenberg). In 1978, they put together the first mobile Snoezelen in a tent, where its environment and themes were changed every year. Thanks to the positive support of the institute's management, the first multisensory Snoezelen room was then built in 1983.

The emergence of the Snoezelen method, as is now evident, was firstly due to the lack of methods, possibilities and approaches that would support the quality of life of people with more severe disabilities and their general development, and secondly due to the creativity, genuine interest and empathetic mindset of those who cared for these specific clients, whether as assistants, psychologists or special educators, social workers or health professionals. The real needs of the clients were saturated by the emergence, setting and use of the Snoezelen support method. The positive synergistic effect imply referred to as a specific adequate response to the special need of the clients was the driving force in the development of this method.

Gradually, new and more sophisticated facilities and multi-sensory rooms were created, and from the Netherlands the idea spread all over the world. The initial successes of Snoezelen were reflected in the improvement of the quality of life of the residents outside the Snoezelen Room, the decoration of the rooms in which the residents were permanently housed on a daily basis changed and the views on living comprehensively gradually changed. In fact, the activities in the Snoezelen Room made clear the preconceived ideas about aesthetic experience, the need for experiences and new experiences for people with intellectual disabilities. A new way of thinking about the individual needs of people with disabilities became an innovative direction of the late 20th century.

The formal leadership and umbrella of Snoezelen today is held by the International Snoezelen Association (ISNA-MSE), which has used the following formulation for the expression of Snoezelen since 2012: "Snoezelen is a dynamic place full of spiritual richness… it is based on a mutual emotional relationship between the participant, the guide and a controlled environment that offers a great deal of sensory possibilities and stimulation. Snoezelen was created in the mid 1970's and is practiced worldwide. Snoezelen is guided by ethical principles and enriches the quality of life of all its participants. Its use is leisure, therapeutic and educational." (www.isna.org, 2022). The acronym MSE is essentially a representation and synonym of the term Snoezelen and stands for multisensory environment. This acronym, and in fact the designation of the environment and activities that can be associated with Snoezelen, is used more in America and Australia than in Europe, and is connected to the legal claim of the "Snoezelen" trademark.

The drafting of this book was not easy and was subject to much discussion by all involved. The reasons for the various contradictions were both the lack of comparative monographic resources related to the topic of Snoezelen, despite its implementation in practice dating back some 45 years, and the different needs for publishing specific information in the different partner teams. We found consensus in publishing a monographic study that would include comparative theory and current knowledge from each country, while showing a specifically

different professional and scientific approach. Snoezelen was originally promoted and disseminated naturally and practically, through good experience. Thus, in each area, country and culture where it has spread, it has been taken up over time by different professionals who have brought the method to the attention of the professional public. In our publication, we have focused on the use of Snoezelen by special educators, occupational therapists and psychologists, in national connotations. As the reader will soon understand, the distinctive features of this method are linked precisely to the discipline that uses it. The principles and theoretical milestones of the concept are initially set up very successfully as generally valid for us all to derive our methodology and strategies of work from.

The contents of this publication are firstly theoretical chapters covering the specificity of the relationship between Snoezelen and the disciplines of special education (Czech Republic), psychology (Catalonia) and occupational therapy (Poland). In these sub-chapters it is possible to find the factual basis of the theory that prevails in a given country and intertwines with the discipline that has adopted it as its own. The perceptive reader will surely understand that the rationale behind the choice of scientific disciplines, and thus the particular arrangement of the theory, resulted from the formation of the partner team of a given project and is not the limiting factor of the single grasp of Snoezelen both in these particular countries and holistically. On the contrary, the team involved in the elaboration of this study is quite unique and its selection has purposely taken a direction that is heterogeneous, both professionally and geographically. A serious determinant for the selection of partners was, after all, the correlation with the academic background, and the implementation of the Snoezelen method teaching at a particular university, including the Snoezelen environment itself. These factors provided us with a specific team that could be described as a team of professionals from the helping professions. In the end, together we fulfilled the idea of complexity of support services for people with disabilities, and the development of interdepartmental cooperation on a completely professional level.

For completeness and to illustrate the situation of the use of Snoezelen in the different sectors within the sub-national chapters, we complement everything with case studies that can contribute to the understanding of the similarities and differences of our national activities. At the same time, these case studies are the result of qualitative research based on deliberate observation and interviews with many practitioners and target clients.

In the initial phase of the project, we conducted a simple quantitative research focused on what knowledge students at the three universities have about the Snoezelen method and what is the fundamental principle and purpose of this method for them. We created an original questionnaire in English with 42 questions and then modified it to collect data in each country. We targeted students and graduates of the project partner universities, i.e. those who had already successfully completed a Snoezelen course on campus. The statistical results and selected conclusions of this research form a separate chapter.

The last part of the text is related to the output of the project itself and its contribution, namely the creation of an internationally oriented syllabus of the Snoezelen course for

foreign students on Erasmus+ mobility, with the aim of supporting teaching and sharing experiences and information. This chapter was co-created in the last project phase during discussions in jointly organised meetings both in person and online.

The main idea of this book is to extend the theory, current knowledge, and practice of the Snoezelen concept. On the one hand, the publication is addressed to all those interested in the subject, and on the other hand, it fills a gap in the space of academic monographs and handbooks and is aimed at students and academics. The publication is an output of the Erasmus+ project Support of the Snoezelen concept and its integration into university education 2020-1-CZ01-KA203-078267.

The purpose of this book is to show Snoezelen as a valid, effective and very similar approach in three countries, in the hands of professionals. The main objective is to identify similarities and differences in the application of the Snoezelen philosophy and to show the specific approach related to the Czech Republic, Poland and Catalonia. It is mainly the qualitative procedure of the comparative study, a method by which differences can be compared, that helps us to meet this objective we have set. Thanks to the activities and discussions within our joint project, we have been able to assess the differences in the understanding of the Snoezelen concept by Czech, Polish and Catalan colleagues, who have contributed their know-how to the creation of this absolutely unique publication. In the sub-chapters we present the concept of Snoezelen in each country. The partners describe the initial situation, the history of implementation, the principles, methods and forms used. For the purpose of comparison, we have chosen similarly focused sub-chapters so that the reader can better assess the similarities in Snoezelen theory and practice.

TEAMS

SNOEZELEN IN THE CZECH REPUBLIC

This part of the text was prepared by a team of experts who are currently employed as academics and researchers at the Silesian University, Faculty of Public Policies in Opava, Institute of Special Education: ***Kateřina Janků – Eva Zezulková – Jan Viktorin – Jarmila Pipeková****.*

Contributions to the practical and illustrative parts were provided by: ***Veronika Šenková*** *from Anima Viva z.s. in Opava,* ***Eva Janků*** *from the Special primary School at Těšínská, Ostrava – Slezská Ostrava, with her pupils, clients from Charita Opava and clients from Sirius Opava.*

SNOEZELEN IN POLAND

This part of the text was prepared by an academic and researcher currently employed at the Academy of Physical Education in Kraków, Institute of Applied Sciences, Department of Occupational Therapy: ***Agnieszka Smrokowska-Reichmann*** *(President of ISNA-MSE in Poland). Contributions to the practical parts were provided by:* ***Anna Bukowska*** *(Academy of Physical Education in Kraków, Institute of Applied Sciences, Department of Occupational Therapy), Urszula* ***Żmudzińska*** *(Academy of Physical Education in Kraków, Institute of Applied Sciences, Department of Occupational Therapy),* ***Renata Bartnik*** *(occupational therapist in social welfare home for chronically mentally ill and mentally disabled adults in Płaza near Kraków),* ***Paula Jaśkiewicz*** *(Vice-President of ISNA-MSE in Poland), students and graduates of Department of Occupational Therapy, Academy of Physical Education in Kraków.*

SNOEZELEN IN CATALONIA

This part of the text was prepared by a team of experts who are currently employed as academics and researchers at the University of Lleida: ***Ramona Ribes Castells – Eduardo Blanco Calvo – María José Cid Rodriguez (****President of ISNA in Spain).*

Contributions to the practical and illustrative parts were provided by: Special school teachers ***Arnau Galitó Trilla*** *from Siloé school in Lleida and* ***Laura Cárdenas Martín*** *from Torre Monreal school in Tudela.*

illustrative photo

1 SNOEZELEN IN THE CZECH REPUBLIC

1.1 IMPLEMENTATION OF SNOEZELEN IN THE CZECH REPUBLIC

Snoezelen is considered in the Czech Republic as a supportive educational method which is applied in three departments of education, social services and health care. The Snoezelen concept has had its place in institutional day-care facilities since its first appearance, where it has been applied mainly as a leisure and self-actualisation approach with the aim of improving the quality of life of individuals and the mutual relationship between the patient and a staff member. Over time, hand in hand with the pro-social and inclusive changes in society, it was increasingly finding its way into schools and educational institutions, where, among other things, its educational potential has been exploited in relation to the cognitive development of pupils with difficulties of various kinds. Within the health sector, it is used most by rehabilitation workers, physiotherapists, occupational therapists, those working on the development and health condition of people.

1.1.1 HISTORY OF IMPLEMENTING SNOEZELEN IN THE CZECH REPUBLIC

The history of the integration of the multisensory concept Snoezelen into the Czech environment could be divided into several phases, which form the successive axis and direction of the concept up to the present. The objective, principled development of this method is bounded by milestones, which relate mainly to important personalities who helped to spread and improve the method in the Czech Republic, as well as events, most often conferences, and the creation of original Czech materials, books and manuals.

In the 1990's

- First information from internships and workshops abroad.
- Enrichment and modifications of Snoezelen concept by Czech natural conditions and national environment.

The beginning of the use of the Snoezelen concept in the Czech Republic dates back to the 1990's and is mainly associated with special education issues. The first documented facts concerning the Snoezelen development are related to special schools and special counselling centres for children and pupils with disabilities.

The 1990's brought to our country a new opportunity for quality education and equal access to education for all children and pupils within school integration. The first major projects began to emerge that involved large-scale humanistic and philosophical changes

in the education of pupils with special educational needs. In 1994 it joined the Spanish Salamanca Declaration, whose main motto was "School for All" and "It is normal to be different". The Czech professional nation slowly began to understand the urgency of changes in the whole educational system and the urgency of change in general.

Information about Snoezelen came to us, to the Czech Republic, mainly from the Netherlands and from Scandinavian countries. The first Snoezelen rooms were created in special schools, namely in the *Special Elementary School in Blansko and the Secondary School for the Physically Handicapped "Gemini" in Brno.* The birth of Snoezelen in Blansko was led by the then director Dr. Petr Hanák and the head of the Special Education Centre Mgr. Jana Kolářová. The original Snoezelen room was designed together with the school extension. The extension was realized as two classrooms for pupils, a speech therapist's office, an exercise hall and a Snoezelen room. On the basis of foreign experience and excursions, a space of about 5x3 metres was created for the Snoezelen, for which basic equipment was purchased, i.e. A waterbed with a walkway and controls for some lighting effects, a cabinet with a control panel for electrical elements together with a tower – central control, an oil projector rotating on the wall, a projector in combination with a mirror ball, spot lights with room dimmer, light water bubble cylinder, mirror wall, set of curtains separating ventilation windows and sets of other small aids for touch therapy, aromatherapy, music therapy, etc. In the beginning, the lessons in Snoezelen were conducted by Kolářová herself, who provided individual consultations to the teachers. Later, the school's special educators were allowed to take a course in child massage and then a course in basal stimulation, where they also received information about Snoezelen and its use. There were no professional publications on the Snoezelen concept in the Czech Republic at this time. Supporting materials were gradually created from the knowledge gained from internships abroad and from the experience gained while working with pupils. When getting acquainted with the Snoezelen concept, the teachers first cooperated with Kolářová from Blansko, but then they themselves gained new knowledge by participating in conferences on Snoezelen and by self-study.

The implementation of Snoezelen activities, which gradually made their way into the institutional environment and full-day care and integrative education, was protected in the 1990's by the supervision of special educators from abroad.

The first Czech publication on the subject of Snoezelen, a 26-page booklet by **Lucie Varvařovská**, was published by the Centre for Further Education of Teaching Staff at Masaryk University in Brno in the early 1990s. The author visited the Centre de Hartenberg Heeren's Loo for adults with more severe mental and combined disabilities in central Netherlands near the city of Ede and was impressed by the rooms created under the direction of Jan Hulsegge and Ad Verheul which were arranged for the development of all senses and functioned as spontaneous leisure activities for the clients. Among others, this publication was addressed to the psychologist **Dr. Hana Stachová**, one of the first Czech personalities to introduce the Snoezelen concept and the work within it to the professional public. In 1997 and 2000, Stachová completed a professional internship in France, where she first

encountered the application of Snoezelen elements. This approach appealed to her so much that after her return to the Czech Republic she began to study the concept in more detail.

In 1997, the Snoezelen concept was introduced into the teaching of special educators at universities, specifically at the Department of Special Education at the Faculty of Education of Masaryk University in Brno. Ongoing excursions of students in Snoezelen were held at the Elementary School of Special Education in Blansko. Cooperation with Professor Krista Mertens, who worked mainly on the pedagogy of individuals with physical disabilities at the Humboldt University Institute for Rehabilitation Sciences in Berlin, also began. Her research projects focused on supporting the development of perception in elementary and special school pupils, and on activation programmes for elderly people with dementia in the Snoezelen environment.

After 2000

- 2003–2004 First Snoezelen rooms in Ostrava (social resort – institutional care), initiated by Dr. Hana Stachová
- 2007 First published dissertation – research of Snoezelen, author Kateřina Janků
- 2009 Beginning of certified courses and trainings
- 2010 Snoezelen room for teaching at MU Brno – Department of Special Education, initiated by Dr. Jarmila Pipeková
- 2011 ASNOEZ – First Snoezelen association in the CR, initiated by Renata Filatova

In the new millennium, we can find several prominent people who were involved greatly in gradual Snoezelen development, namely Hana Stachová, Renata Filatová, Jarmila Pipeková and Kateřina Janků (née Vitásková).

Stachová worked as a psychologist from 2002 at the Institute of Social Care in Ostrava-Muglinov (the name of the facility at the time) and started to develop the first Snoezelen room in the region. With the support of the director of the facility, she identified premises near the rehabilitation department that were accessible for potential immobile clients. The first room was very spacious, ventilated and quiet. It was cleared, the ceiling and upper parts of the walls painted dark blue, the lower part of the walls dark green, and the floor was covered with a dark green carpet. Dark, blue, heavy curtains blacked out the windows. The basic equipment consisted of one bed, a stereo player, a plasma lamp, candles, aromatherapy lamps, and a shelf where aids (feathers, commercially available percussion instruments, sponges, washcloths, scarves, pieces of fur for stimulation, and scented essences) were available. The newly constructed room was used daily and regularly visited by its clients. Therapy was mostly organized in groups, with 2–4 immobile clients participating and two therapists attending to them. The clients' reactions to the change of environment and the provision of stimuli were overwhelmingly positive. These first experiences were recorded by video camera, and written records of their stay in the Snoezelen room were made. Periodically, these records were evaluated. They were also used to further plan the content of the lessons. The interplay and cooperation between the psychologist, the second therapist,

the speech therapist and the special educator with their individual practice in the social care institution were essential for successful implementation. The results from the therapy sessions were presented at seminars for the staff of the social care institution. Step by step, the opinion on the dark room and the activities in it, as well as the concerns associated with them, changed positively. Stachová gradually established two multifunctional Snoezelen rooms in the institute, where she worked mainly with clients with severe mental disabilities. Due to the growing interest in the Snoezelen conept, she began to hold other professional seminars not only in the social care institution.

Fig. 1: Snoezelen in the Ostrava-Muglinov Social Care Institution 2004, author's archive

Renáta Filatova, the owner of a sewing workshop, helped Stachová mostly with the furnishing of the first rooms of the institute, inventing and discovering possibilities of aids that were suitable and adequate for the clients of this facility and that corresponded to the multisensory concept and its principles. Until this time, it was not possible to buy customized products in the Czech Republic, products that were primarily intended for use in Snoezelen. Filatova gradually educated herself and began to study special education until she finally became the President of ISNA-MSE for the Czech and Slovak Republics. Her interest in Snoezelen reached thousands of people who began to work with the method and enhance its effectiveness.

Fig. 2: Snoezelen in the Ostrava-Muglinov Social Care Institution 2004, author's archive

Fig. 3: Snoezelen in the Ostrava-Muglinov Social Care Institution 2004, author's archive

In 2003, special educator **Kateřina Vitásková** (later Janků) began working at the same institute. Stachová and Vitásková decided to attend the 4th International Snoezelen Conference at the Dutch Centre de Hartenberg (the original centre), and based on the information they had received they began to collaborate on the use of the first Snoezelen rooms in Ostrava. Stachová then began to introduce the Snoezelen method to interested people and experts in the Czech Republic and Slovakia through seminars and lectures. On the basis of their own practical knowledge, in spring 2004 Stachová and Vitásková organised the first conference in Ostrava entitled, *"Why have Snoezelen or everything you want to know about this method"*, which started the official promotion and development of this method in the Moravian-Silesian Region.

As a fresh graduate in special education, Vitásková first encountered the Snoezelen technique in America in 2001 during her two-year work placement there. In a non-profit facility that still provides day care for people with severe disabilities and multiple disabilities in the state of Massachusetts, she first encountered multicolored fiber optic lamps, optical effects, as well as luminous material that could be used to shape all sorts of things, vibrating platforms and other objects that completely amazed her. These tools and techniques were used haphazardly in the facility, just as toys, without any particular system, organization or purpose. However, the clients, mostly adults and also seniors, always enjoyed the work and they functioned in a completely different way in this room. At that time, she herself did

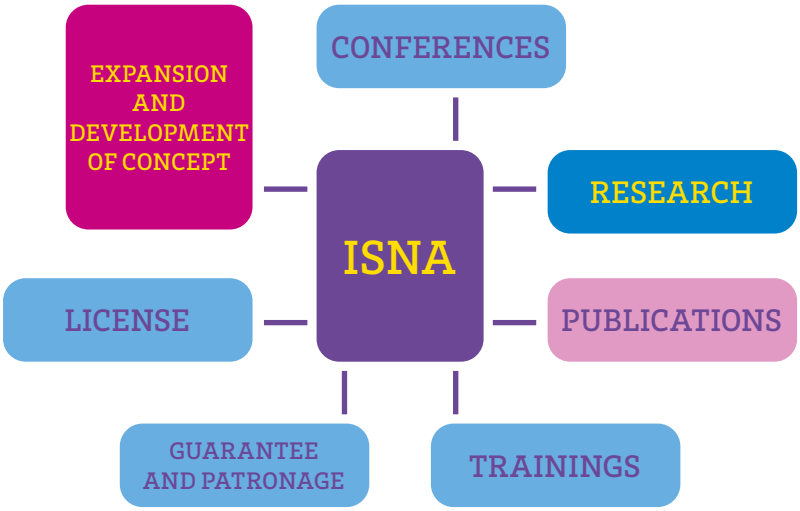
not know that she was working in a Snoezelen environment, but she later connected the information in Ostrava. The experience of theory and practice regarding the multisensory concept of Snoezelen started to develop very early and very quickly within institutional care.

In 2007, Janků successfully defended her first dissertation in the Czech Republic, specifically at the Department of Special Education at the Faculty of Education of Masaryk University in Brno. The topic of the dissertation was the use of the multisensory Snoezelen method for people with intellectual disabilities in the Czech Republic. Its aim was to analyse the global information on Snoezelen in theory, to assess qualitative changes and effectiveness of Snoezelen lessons in 10 users of institutional care, and to quantitatively map the use of the concept in the Czech Republic in 2007. The results of the dissertation showed an improvement in the quality of life of individuals with various degrees of intellectual disability and simultaneous multiple disabilities, most often in the development of sensory perception (including most often visual, auditory and haptic perception), reduction of aggressive tendencies and improvement of self-control, use of leisure time and development of socialization, social habits and cooperation. This first dissertation on the topic of Snoezelen was subsequently published by the Faculty of Education of the University of Ostrava as a monograph in 2010 under the title, *"The use of the Snoezelen method in people with intellectual disabilities".*

From 2010 onwards

- Snoezelen in the Czech Republic has become part of the worldwide association ISNA-MSE.

Diagram 1: Development of Snoezelen thanks to ISNA-MSE



In the period between 2009 and 2010, this concept developed rapidly, with a number of new Snoezelen rooms established across the Czech Republic. This was followed by four international conferences on Snoezelen in the Czech Republic (twice in Ostrava, in Klimkovice and Brno). The promotion of the concept moved to the lecturing of the first courses, which Filatova started to create in collaboration with Stachová and Janků.

Filatova initiated the creation of the first Association of the Snoezelen Concept in the Czech Republic (ASNOEZ ČR) in 2009 and soon estblished and developed the first Snoezelen Concept Education Centre in Ostrava.

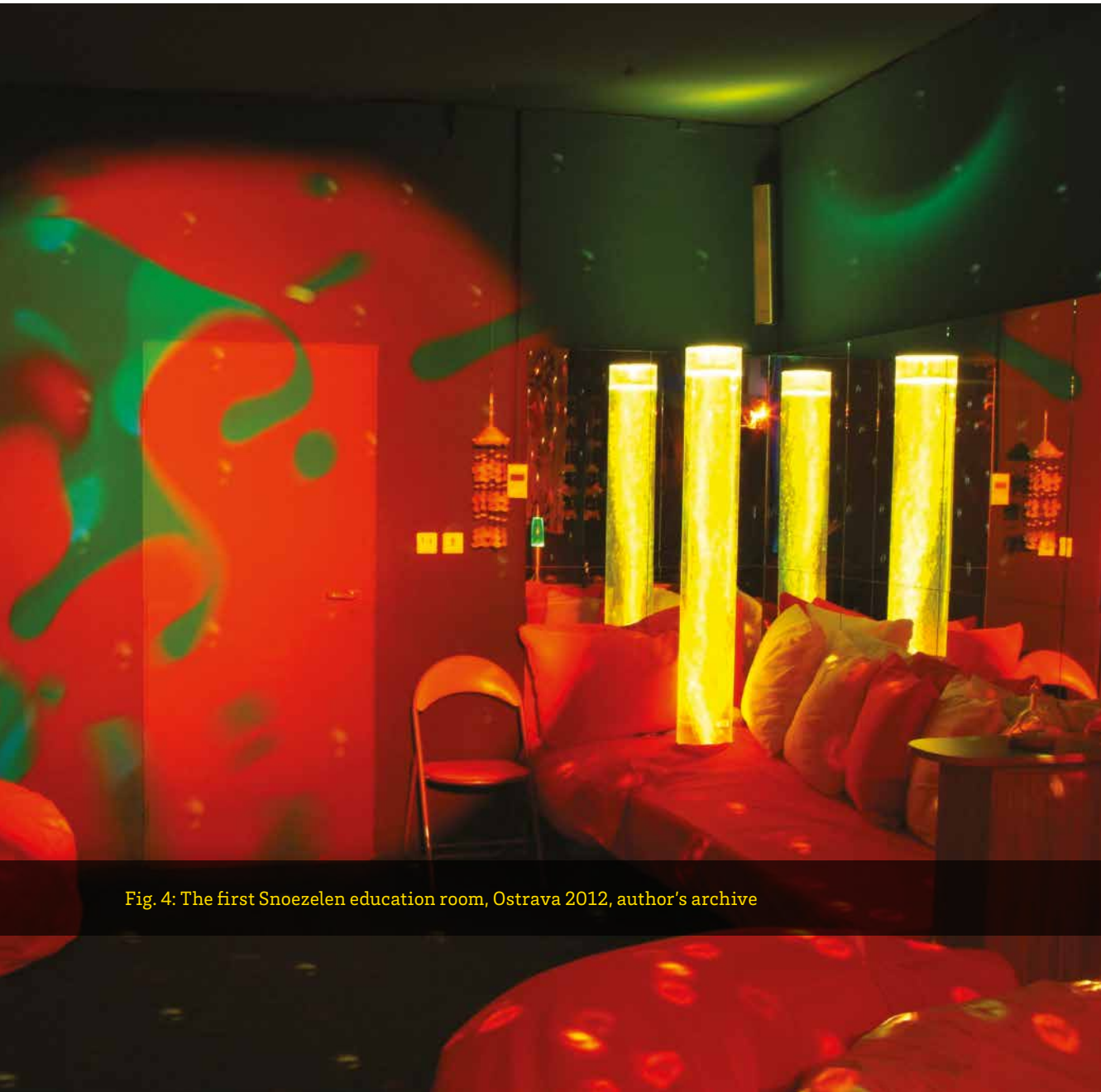


Fig. 4: The first Snoezelen education room, Ostrava 2012, author's archive

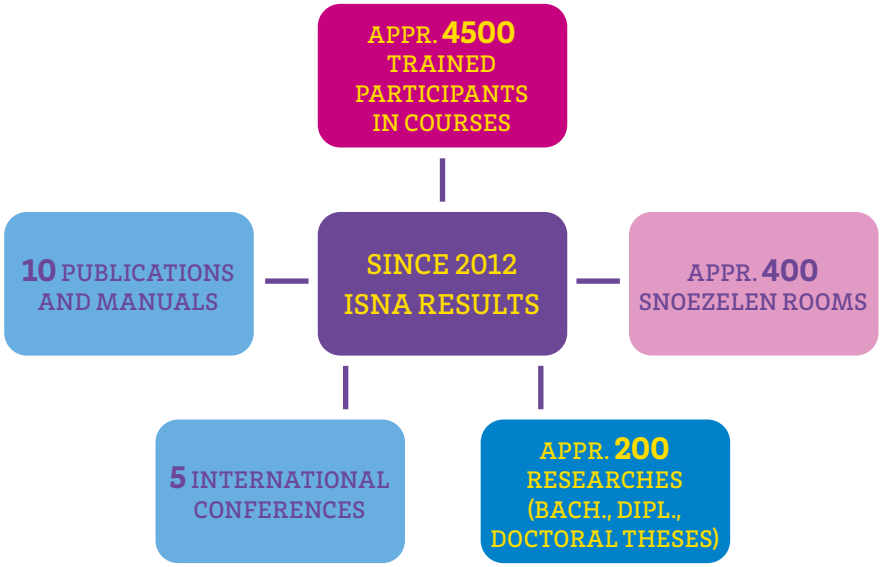
A long lasting interest in the Snoezelen concept brought Dr. Jarmila Pipeková from the Department of Special Education at the Faculty of Education of Masaryk University in Brno. She personally, as an academic, was instrumental in building the first Snoezelen classroom at this department. The room was again designed and equipped by Filatova. The Department of Special Education at the Faculty of Education of Masaryk University in Brno was thus the first certified Snoezelen room on campus in the Czech Republic and Slovakia. With the contribution of the European Social Fund of the European Union, Operational Programme Education for Competitiveness, "Supporting the practice of students of special education with regard to the implementation of school curricula in special schools" (2009–2012), the content of courses dealing with the issue of multisensory rooms was fulfilled.

Fig. 5: Snoezelen room at the Department of Special Education in Brno, 2012, author's archive

In 2010, Renáta Filatova together with Janků published the *Snoezelen* publication, which is a basic concept of working in a Snoezelen environment. The publication structurally guides through the individual stages in the construction and development of a specialized environment the Snoezelen environment undoubtedly represents. The publication was the first Snoezelen textbook in the Czech Republic primarily intended for special educators and psychologists, but it has surely addressed also teachers, social workers and leisure educators. To this day, it is still recommended and sought after by those who are newly interested in the Snoezelen concept. Filatova has subsequently completed the Snoezelen-MSE international additional qualification and is an ISNA-MSE accredited international trainer. In 2014 she self-published *Snoezelen-MSE*, focusing on therapy in a Snoezelen environment.

Under the auspices of ISNA-MSE, more than 4500 professionals have been certified in the Czech Republic since 2012, 10 publications and manuals have been published, around 400 Snoezelen rooms have been created, 4 major international conferences have been held and more than 180 Bachelor and Master theses have been written on Snoezelen within the academic setting.

Diagram 2: Snoezelen – related results after 2012



Let us note that in recent years, back in 2018, Janků published her book “Snoezelen in Theory, Practice and Research” which is the latest in a series of expert studies focusing on the current characteristics of the Snoezelen concept. The publication discusses the theory, practice and research related to the Snoezelen concept, and is a monographic text that aims to clarify the contexts and relationships of the Snoezelen concept in the paradigms of special education, both in theoretical, praxeological and empirical contexts. Janků currently

Fig. 6–7: Snoezelen at the Faculty of Public Policies in Opava, 2019, author's archive

teaches at the Faculty of Public Policies of Silesian University in Opava and is in charge of a course titled, *"The Use of the Snoezelen Multisensory Environment and The Use of the Multisensory Environment in Work with the Elderly"*, which consists of theoretically oriented exercises that focus on the basic assumptions and principles of this method, determinants, possibilities and characteristics of the Snoezelen multisensory concept in Czech conditions. In 2019, a Snoezelen multisensory room was opened at the Faculty of Public Policy of Silesian University in Opava. This is the second Snoezelen room in an academic campus in the Czech Republic. The Snoezelen multisensory room contains aids for the development of individual sensations and thus opens up space for a therapeutic, supportive and leisure activities for the therapists and their clients. One can find various light systems, projections, shapes, smells, mirrors, a swing, a water bed and other aids that help learning and the development of the client's mental well-being. Janků qualified as a trainer and supervisor of the Snoezelen concept at an international level in 2020.

The Snoezelen concept is spreading well across the Czech Republic. People are interested in this multisensory concept both professionally and personally. The belief in its effectiveness is also demonstrated by the international Erasmus+ project that Janků received at the Faculty of Public Policies in Opava with the aim of expanding the theory of the concept within the university environment. The project also provides support and funds for this publication and all current promotional activities of the faculty.

HISTORY OF CONFERENCES WITH A FOCUS ON SNOEZELEN-MSE

I. The conference with international participation, "Support and quality of the Snoezelen concept in the Czech Republic", took place on 24 November 2011. It was organized by the Snoezelen Concept Association under the auspices of the Department of Special Education of the Faculty of Education of the University of Ostrava.
II. In March 2013 in Klimkovice Spa, the Association of the Snoezelen Concept of the Czech Republic organized the second conference entitled, "Snoezelen in a non-traditional way", for which Filatova managed to bring a speacial guest speaker, Reinhard Cherek, a prominent German physiotherapist, who spoke about Snoezelen in water.
III. The 3rd International Conference Snoezelen-MSE, "Therapy in the hands of experts means luxury for all senses", took place on 15–16 October 2014 in the Scala University Cinema in Brno. The conference organized by the Department of Special Education of the Faculty of Education of Masaryk University and the Snoezelen Concept Association was attended by Ad Verheul, founder of the Snoezelen Concept and Prof. Dr. Paul Pagliano, a prominent neuropsychologist. The theme of the conference was neuroplasticity of the brain. At this conference, ISNA-MSE CZ was already mentioned, before it had been ASNOEZ. Thus, officially the concept was renamed also globally to ISNA-MSE and the definition on the official website was changed in the direction towards MSE (multisensory environment).
IV. International Conference ISNA-MSE, organized under the auspices of the University of Ostrava, was held under the title, "Snoezelen-MSE and its current trends", on 20 and 21 April 2017 in the auditorium of the Faculty of Medicine of University of Ostrava in

Ostrava-Zábřeh. The conference was attended by a number of experts from the Czech Republic and abroad. Psychologist Maurits Eijgendaal focused on colours and their effect in Snoezelen-MSE therapy and psychologist Maria José Cid focused on the involvement and influence of the family in Snoezelen-MSE therapy. As far as the Czech experts are concerned, the participants could see, for example, MUDr. Jarmila Zipserová presenting information about Snoezelen-MSE in the practice of rehabilitation physicians, school psychologist PhDr. Stanislava Matisová presenting the application of Snoezelen when working with pupils with autism spectrum disorders and Mgr. Lenka Platošová who spoke about Snoezelen-MSE in a facility for people with visual impairment.

V. On October 17 and 18, 2019, the World Snoezelen-MSE Congress took place at the Olšanka Congress Centre in Prague, whereby ISNA-MSE, z.s. celebrated ten years of Snoezelen-MSE education in the Czech Republic. The World Congress in Prague had an exceptional cast of international experts from all over the world, including twelve world experts from the fields of neuropsychology, special education, psychology, social care and education (Ad Verheul, Maurits Eijgendaal, David Grupe, Fernand Bruneau, Anthony McCrovitz, Paul Pagliano, and others). This was the first time in the history of ISNA-MSE that Snoezelen celebrities from the professional community presented in such numbers in one place. The conference focused on Snoezelen-MSE in neurorehabilitation, as well as at the client's bedside, in the classroom and in the outdoors. Attendees were also able to hear about children with ADHD in Snoezelen-MSE therapy and aromatherapy in Snoezelen-MSE.

Gradually, the founders and prominent experts of the Snoezelen concept from all over the world took turns at the conferences in the Czech Republic, who always enriched their programme in an interesting and engaging way. Ad Verheul (father of the first concept), Maurits Eijgendaal (the current President), Anthony McCrowitz (USA, Alabama), Paul Pagliano (Australia) and Marie José Cid (Spain) accepted invitations to almost all conferences held in the Czech Republic.

Fig. 8: ISNA-MSE Board team at the Faculty of Public Policies in Opava, from left A. McCrovitz, F. Bruneau, P. Pagliano, K. Janků, M. Eijgedaal, A. Verheul, 2019, author's archive

Nowadays, Snoezelen is often used not only by social care services, but also by special elementary schools. For these schools, the multi-sensory environment of the Snoezelen concept is extremely beneficial, individually variable and stimulating, especially as a support for educational activities, but also as a relaxing and self-fulfilling environment. After several sessions in the Snoezelen room, pupils can be observed to be more motivated, in a good mood and they have a positive attitude towards education (pupil activation), which is supported by numerous research studies at home and abroad. The application of the Snoezelen concept in the core areas of the curriculum of special elementary schools is possible in almost every area. Through the approach of topics in Snoezelen rooms, pupils of special elementary schools are offered the possibility of real experience, concretization and sensations that are based on perception through all senses, supporting the development of emotional and cognitive areas of the pupil's personality. In addition to supporting education, Snoezelen also serves as a form of self-fulfilment and leisure time, which, together with educational achievements, increase the self-esteem of the pupils. The potential of pupils who change their learning environments is greatly enhanced and at the very least, their interest in education and a multi-sensory approach to education are increased.

Fig. 9–10: Snoezelen in the Special Elementary School in Těšínská Street, 2022, author's archive

Fig. 11: Snoezelen in the Special Elementary School in Těšínská Street, 2022, author's archive

1.1.2 PHILOSOPHY AND PRINCIPLES

In the Czech Republic, the concept of Snoezelen is defined in a descriptive form, it is **linked to the application of specific methods or techniques in a specially adapted scheme and physical space.** The condition for its functionality is the creation of such a multisensory environment in which people feel comfortable, connected, relaxed, and in which effects can be achieved that are impossible to achieve in an ordinary unadapted environment, a school classroom or a hospital room, or any other space that is adapted and used in a stereotypical way (Janků, 2018).

The Snoezelen concept is a comprehensive strategy that supports human development at all its holistic levels – biological, psychological, social and spiritual. Its objective is to influence the genesis and development of all key competences important for human life and its quality.

In connection with Snoezelen we talk about **a multisensory approach, with the help of which experts of various professions** (social workers, educators, psychologists, psychiatrists, neurologists, therapists, etc.) **try and activate their clients** (people with disabilities, children with special needs and various disorders, seniors with dementia, i.e. those who need specific help and support from others at a certain stage in their lives).

In general terms, the target group of the Snoezelen concept includes people whose quality of life is simultaneously affected by multiple professionals, both because of the need to provide life needs and effectively integrated interventions that positively develop their potential and competences, and because of the need to improve their quality of life and experience of real situations, integration into social systems and anchoring of social bonds.

The social environment of the Snoezelen concept is created and influenced by professionals who lead and implement specific activities. Most often people from the helping professions work in the Snoezelen environment. In our country, in the Czech Republic, social service workers, activation workers, special educators, assistants and childcare workers particularly involved. These most often use it in their professional activities with children and adults with mental and combined disabilities, dementia and severe multiple disabilities. This is similarly the case around the world (Lee et al, 2022; Sánchez et al, 2012; Bauer et al, 2015).

Psychologists and special educators are included in the direct process with this concept in the setting of the educational plan of individuals, or the Comprehensive Intervention Process, both diagnostic and strategic development options for children and adults aimed at personal, pedagogical and social inclusion, through cognitive and communicative activation. From the neurological point of view, we pursue the possibilities of the human brain plasticity in Snoezelen. Such which would adjust the way we look at dealing with situations related to functional and degenerative changes associated not only with old age,

but also with pathologies of neuronal processes. Psychiatric efforts have largely focused on the marginalization of psychopharmaceuticals in the routine care of persons with mental and neurotic disorders, as well as children and adolescents with partial functional disorders such as ADHD, as well as autism spectrum disorders and issues related to them.

Opening multi-sensory Snoezelen rooms, corners and gardens worldwide, as well as within the Czech Republic, has an increasing tendency and is becoming more and more common. We are seeing an increase in the supply and potential use of Snoezelen, most often in the area of work with children and the elderly. In 2007, there were 57 social service institutions, schools and educational institutions throughout our country that had a multisensory room (Vitásková, 2007). In 2018, the same number of Snoezelen was registered in the Moravian-Silesian Region, one of the 13 regions of the Czech Republic (Kozelská, 2018). According to the statistical data available to us this year, 2022, there are more than 400 multisensory rooms in our country.

THE THREE-DIMENSIONALITY OF PROCESS SUCCESS

The success and effectiveness of the concept is underlined by partial parameters that are closely related to the implementation of Snoezelen in practice and form its dominant components. These parameters are based on the original theory presented by Verheul and Mertens in their 1984 publication. In different interpretations, they are most often associated with the so-called "Snoezelen triangle", which clearly expresses the three-dimensionality of Snoezelen's attributes and underlines its processes.

Snoezelen is characterized by:

1. an environment that is organized according to certain requirements, conditions, and standards,
2. the personality of the individual, whose development is the goal of the whole intervention,
3. and the guide (facilitator) who is the person involved in the intervention.

In the first instance concerning the environment, it is a pleasant atmosphere and environment, originally and individually created, which corresponds in its arrangement to the needs of the situation in which we respond to the requirements of practice and specific people, for which Snoezelen is equipped with a number of adequate aids, techniques, and resources.

In the second instance, it is a concept that has an individual intention, which is eruditely based on the diagnostic scheme of the individual and predicts the readiness to respond to what arises from the situational context of the specific work with the person and his or her educational intention.

The third is a progressive, positive and open approach of the stakeholder (guide) who, according to their competences and therefore professionally focused goals, understands and accepts the possibilities of the person they are working with, reflects their heterogeneity and is actively empathetic to all the client's signals; physical or emotional.

SNOEZELEN PRINCIPLES

According to Verheul (1992), processes in a multi-sensory Snoezelen environment should be conducted in such a way as to support human development while maintaining certain principles of efficient work:

1. The right atmosphere
2. The opportunity for choice
3. The opportunity to set the space
4. The right time
5. Repetition
6. Selective offer of stimuli
7. The correct fundamental attitude
8. The appropriate supervision. (Verheul, 1992)

The principles of Snoezelen, in connotation with the effectiveness of the whole system of its practice, must be seen in:

- individual approach to human heterogeneity
- non-directive management
- diversity of application of activities and techniques
- spatiotemporal adequacy
- differential and highly specific provision of stimuli
- retroactive and effectively positive activation
- priority developmental level of personality

The principles of Snoezelen are a general guide on how to use the concept in practice and in theory. It is not possible to do without anything, it is essential to know them. Within special education, as in other scientific disciplines, they can be modified according to specific principles and strategies, but in their basic essence this is not necessary.

1.1.3 SNOEZELEN TYPES AND FORMS

Understanding of the first Snoezelen concept, as promoted by its founders, was purely based on the assumption that primary sensations and current experiences are a very powerful means of establishing contact and communication with people with severe disabilities. Snoezelen, however, in this first historical stage, it mostly had only a recreational and relaxation value. The emphasis of its application was placed on pleasant and unpleasant feelings, motivation and the desire to actively participate in the Snoezelen room activities. Learning, personality development and education were of secondary importance. The authors themselves admitted that their approach needed a theoretical framework and unity of principles and rules which had, up until then, only been gradually forming. Nowadays, we know that it is not possible to rely on our own intuition alone for Snoezelen intervention;

we must take a critical and professional stance towards activities and stimula through the Snoezelen environment.

We know from many different reports, and also from research results, that unstructured and ill-thought-out work based solely on the multisensory equipment in a room, and its improper use and unprofessional handling, tends to lead to passivity and apathy, chaos, stimulus disorientation, sensory overwhelming, or even to aggression and internalization or adoption of unwanted and negative patterns of behaviour or attitudes. The work in the multi-sensory rooms of Snoezelen must be clearly defined, focused and meaningful, and must have a certain sense of order. It is not possible to leave the persons at the mercy of themselves and of the stimuli flowing from the environment, which is, moreover, overwhelming in terms of multisensory input.

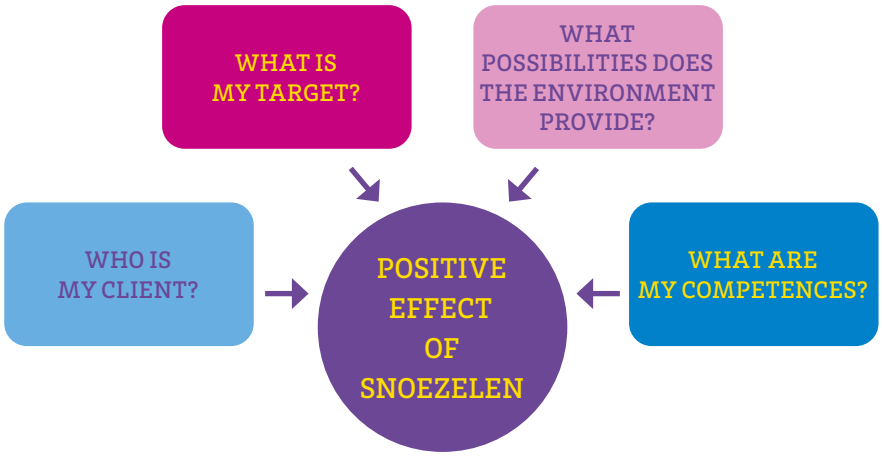
To ensure effective sensory stimulation in the Snoezelen room, we must pay attention to the following factors, which are also the **sorting starting criteria for** the different forms and types of intervention in the Snoezelen.

Types and forms of Snoezelen intervention are affected by the following:

I. who the client of the intervention is;
II. what the aim of the intervention is;
III. what possibilities the environment provides;
IV. what competences the guide/therapist has.

The positive effect of Snoezelen is related to different forms of activities and types of working processes in terms of different **types and forms of intervention, but also** in terms of different types of rooms, therapist competences and of course the target group of clients.

Diagram 3: Positive effect of Snoezelen, 2022



I. CLASSIFICATION CRITERION – CLIENT

Fulfilling the philosophy of the Snoezelen concept and its specific sub-activities is based on a **pre-prepared and structurally planned concept of working with a given client.** The individual plan for each person is determined on the basis of their health, age, specific needs and possibilities. Both individual and group approaches can be used within this plan.

The individual approach is based on intimate communication between the worker and the client. Individual needs, interests based on personality, motivation, as well as the client's psychological and physical condition, abilities and limitations play an essential role. The individual approach is based on flexible response and communication, on situational factors and on the time possibilities of both parties involved.

On the other hand, the **group approach** dynamizes and activates energy, creativity, courage to change. Working with a group is not a simple goal; it can be a means of working in the direction of expected changes in individuals. Encouraging each other to openly express the feelings of those present helps to develop empathy, and also offers the opportunity to address their individual problems with the help of the whole group, with insight that can be mediated by other group members.

As far as the age is concerned, it does not play any role in the Snoezelen intervention, in the sense of the possible application of this philosophy for **all age categories.** It is only possible to point out the typical context of human development in each chronological period.

The coherent factor for each intervention in Snoezelen is the **client's diagnosis**. If we look at the historical but also prevalent use of Snoezelen intervention for specific people, then in *addition to children, adults and seniors with severe disabilities,* these *include mainly people with PAS, Alzheimer's disease and other types of dementia, regressive disorders such as Parkinson's disease, behavioural and emotional disorders, people with mental illness etc.*

Statements from the research all over the world:

"...The results in the present study indicate that the continuous sessions in Snoezelen room had effects on reducing severity of ASD and repetitive and stereotyped behaviours on CARS scale." (Novakovic et al, 2019)

"...Our findings support the use of principles of healing architecture and Snoezelen in birth environments and add to the evidence on how the physical design of hospital environments influence on both social and physical aspects of the well-being of patients. The environment appeared to encompass several dimensions of the concept of patient-centered care." (Nielsen, Overgaard, 2020)

"...Participants performed significantly better with memory tasks and balancing skills after having attended multisensory stimulation in a Snoezelen room. This

may be due to improved mindfulness, which is correlated with improvements of concentration, learning ability and motor skills caused by neurophysiological changes of the brain." (Toro, 2019)

"...Multisensory stimulations in dementia can be used as an adjunctive strategy alongside other therapies. Sensory diets can be applied in common home environments. For this purpose, it is better to use Dunn's sensory processing model. So, along with individual components, context and occupations are also considered." (Zaree, 2020)

"...The multi-sensory environment appears to be an appropriate structured environment for the assessment and intervention process. In this environment, the clients have the opportunity to express themselves through their own means of expression and to create their own communication system. Base on observations, we also found in this environment that, in particular, the environment of a white specialized room leads to a relaxation that facilitates communication on both sides – both the professional and the client." (Lucká, 2019)

II. CLASSIFICATION CRITERION – THE AIM AND NATURE OF THE INTERVENTION

Since its inception, the method based on the multisensory environment Snoezelen has undergone many changes. Currently, it is considered by its representatives around the world **both as an original leisure activity with an emphasis on a non-directive approach, and it is sophisticated as a supportive educational concept with an emphasis on structure, learning and human development.** An objective definition which would clarify what the multisensory Snoezelen method really is was addressed over 20 years ago by Slevin and McCleland (1999) who pointed to the statement of Hulsegge and Verheul (1989) as follows: *"...there are a number of illuminating definitions that describe what exactly the Snoezelen method involves, but it is impossible to demonstrate through words and partially transmitted ideas alone what exactly is meant by the term. Finally, only personal encounter and experience can give us a true picture of the method..."* (Hulsegge, Verheul, 1989, p. 158).

In view of the principles set out in the previous section, we venture to ask whether intervention in Snoezelen should be guided or spontaneous? And whether a pleasantly adapted room should be primarily for rest, relaxation and the promotion of positive emotions, without much influence from a guide or teacher, or, on the contrary, whether the sessions should be structured and guided towards certain objectives**? There is no clear answer to this question, because it would not only limit the final set of possible methods**

and organisational forms of work, but also the basic idea which says that in Snoezelen we have to work on an individual basis and with individual goals would not be fulfilled.

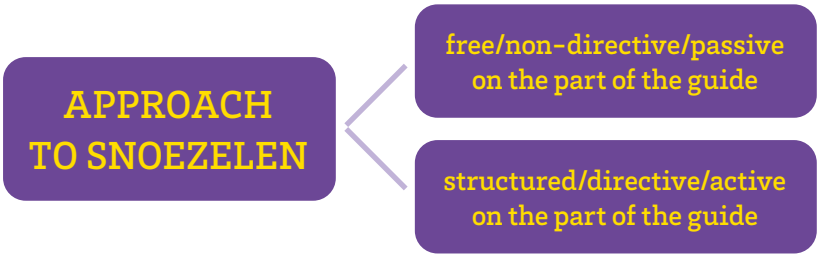
First, let us look at the intervention and the approach, which we describe as free, non-directive, rather passive on the part of the guide, and a directive, structured and more of an active approach on the part of the guide:

As far as the methods of work within the Snoezelen intervention are concerned, we can distinguish between **passive and active methodologies**, depending on the needs and profile of the person. Let us have a closer look at each of them:

In the passive methodology, or non-directive approach, the role of the guide/expert is observational and rather just accompanies and ensures the presence of the client in the multi-sensory room. The client is the protagonist of their own activity and sensation, they are the independent initiators of their development and learning at different levels. Clients receive the effects of sensory stimuli spontaneously; sensory experience and sensation are not controlled. The role of the guide/special educator is to remain passive in conducting the lessons.

In the active methodology or directive approach, the guide/special educator is the facilitator of the learning process who guides the search for intention. The client is guided and encouraged to be active, to be aware of sensory stimuli, to purposefully perceive and develop different kinds of perceptual sensations and to combine them into a specific impact and effect. At the same time, the special educator controls the whole situation and directs it in a purposeful way to meet the goals set by him/her and the client and mutually agreed upon.

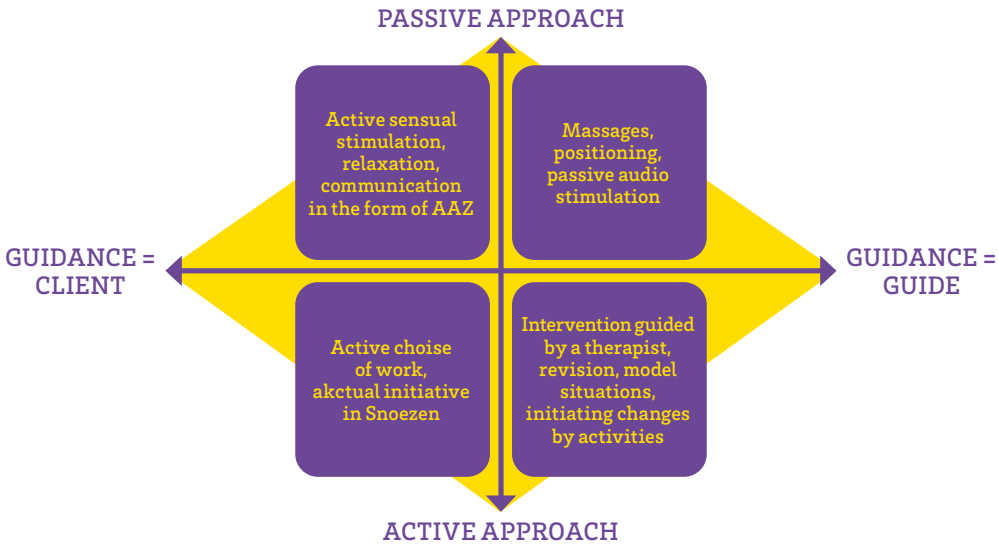
Diagram 4: Approach to Snoezelen



In general, when it comes to methodology, it is often impossible to maintain only a passive or active approach as they are combined in synergy. In addition, some possibilities open by **alternating and combining environments that allow both passive and active roles and interventions to be experienced.**

It is possible to visualize the specific activities behind these approaches, for example, in the form of the following diagram.

Diagram 5: Different approaches to ways of working in Snoezelen



"Snoezelen's individual adaptations most often involve a child with special educational needs. The current Czech school system supports, on the basis of documents on equality of education for all children, a system of inclusion and heterogeneity of common education. Educators are thus forced, due to different situations (and often new situations for them), to face problems that are extraordinary and often require different thinking and attitudes. Emphasis is placed on the professional preparedness, erudition and qualifications of teachers. Children who used to be educated in special schools and segregated environments are being brought into schools. These pupils are characterised by different strategies and methods to which teachers today have to adapt and adopt them. Thus, the intended competencies of a regular teacher are very close to those of a special educator, which are acquired through further, extended, special studies at different levels and stages." (Statement of Janků, 2021)

The first officially named and widely used intervention in the Czech Republic, which we will describe here, is the so-called **leisure Snoezelen**. Due to its content and size, it is an all-day venture. Although abroad this type of work is called 24hour Snoezelen care, in the Czech Republic the term 'leisure care' has been adopted. This intervention is described in the original Dutch concept and is targeted to the environment of homes for people with disabilities, for the elderly and for the elderly with dementia. The aim of this form of Snoezelen work is to provide a permanent and long-term opportunity for multisensory stimulation to those whose cognitive and psychosocial abilities need support at every moment of their lives. The 24hour Snoezelen is mostly used by those **clients who are**

permanently placed in institutional care, or in homes with permanent social services or assistance or care support.

In this type of Snoezelen intervention, we try to adapt the physical environment to people's everyday life. The stimulus environment includes the whole house, apartment or at least a specific room and all common areas are redesigned so that the rooms and the open, shared spaces can be pleasant and stimulating. They are equipped with aids and technology that correspond to the development of the senses and encourage people's sensory activity. The principle that supports this Snoezelen practice is a holistic biopsychosocial approach in understanding people's health and behaviour. The purpose of such a Snoezelen strategy is to ensure that everyday life with all its uninteresting and stereotypical components such as hygiene, eating, the routine activities of getting up, getting dressed, etc., are modified and elevated by enriching them with a multi-sensory experience that brings moments of joy, well-being and new vigor to the daily stereotype. At the same time, we adapt the living space to the individual needs of each client who prefers a different stimulating and relaxing environment. This global approach to everyday life is part of the concept of the original Snoezelen philosophy (Van Weert et al, 2005).

As we have already mentioned, in our Czech environment this kind of Snoezelen intervention is commonly considered as a **leisure Snoezelen**, which belongs, as in the original Dutch environment, to **institutional Snoezelens.** These multisensory concepts, which offer the use of leisure time precisely with the aim of actively stimulating, activating and promoting sensory perception not only for the elderly, but also for children and adults with severe combined disabilities dominated by mental, physical and sensory impairments, are also the **most commonly established due to their necessity and applicability in all-day care.**

But we can also think of Snoezelen as of a **structured therapy. Within it,** we look at the psychotherapeutic goals or whether it has a prospective positive therapeutic effect and changes the client's experience and behaviour in a positive way.

If we decide to use **Snoezelen as a therapy**, then we must realize that during the course of the therapy there **should be changes in the person's experiencing and behaviour**. Let us remark one summarizing definition that relates to psychotherapy and psychotherapeutic processes: ...whereby the effectiveness of the work is shown in the creation of positive expectation, and in the acquisition of hope and courage, we see support of the therapeutic relationship or cohesion and group dynamics, self-exploration, self-expression, relaxation and catharsis. Confrontation with problems, acquisition of a broader view, understanding of contexts and of unconscious information can occur. Feedback and corrective emotional experience are gained. New patterns and models of behaviour are tried and practiced. New information is obtained and missing social habits and skills are learnt, etc. (cf. Kratochvíl, 2006).

The therapy must be led by a competent guide, there must be a **planned and targeted procedure based on a comprehensive diagnosis of the client**, and of course feedback,

evaluation and effectiveness arising from this activity. The use of the Snoezelen method as a therapy is very individual, taking into account the different profile of each client.

In an **active intervention**, a multisensory stimulation room or multisensory area can be a **means of enabling a person's active sensory awakening through active sensory experimentation** by mediating activities or by guiding the client in different situations in a targeted way. In this way, among other effects, we purposefully contribute to the global development of humankind.

An interesting current concept of intervention in Snoezelen, especially for special educators, is the **supportive educational** approach**.** This type of intervention is concerned with creating a cognitive and educational environment that is necessarily **directive and actively thought through**. Its goal may be to support the education of children or the personal development of people with dementia, Alzheimer's disease, or other general mental or regressive disorder. Depending on what we wish to support with the directive approach we most often refer to a multi-sensory environment developing communication, play and creativity, cognitive development and education, or the development of relationships and emotionality, including the formation and personality of a person.

When it comes to the **active development of the cognitive part of the personality, education and learning,** the focus of the Snoezelen intervention is on innovative learning, discovery and acquisition of information, its consolidation, processes related to equipping, participative and deliberate observation, thinking skills, analysis and synthesis, logical inference and other phenomena. Often, however, the activities are directive in a minimum scope and are mainly concerned with motivation, initiation of these processes and their consolidation. Snoezelen can be used very positively and effectively as a motivational environment to initiate learning. Thus, we target attention and concentration, memory, language and communication skills, integration of concepts and other tools and processes that we consider to be prerequisites for successful learning. **This kind of intervention must be structured and targeted, and is therefore automatically ranked among directive approaches.**

In this case, we consider the Snoezelen room to be a supportive educational space, most often set up directly in the school, being an interesting complement to activities related to the specific **curriculum of the given school.** The aids and technology that make it possible for us nowadays to create virtual environments, various effects, motivating interactive spaces, etc., are becoming a necessary motivational technology in the hands of teachers and educators. The promotion of educational opportunities and specific educational topics motivates not only students but also teachers and puts new tools in their hands. In addition to these actively oriented activities and interactive projects, Snoezelen gives the opportunity to rest, individually relax, and use the room for their own purpose and needs. However, all this conceals one major challenge, and that is the above-standard preparation of educators, their creativity and their increased interest in innovative approaches. At this point it is important to realize that Snoezelen is not another classroom and the activities in it are subject to the principles of Snoezelen.

In the field school practice, the application of Snoezelen is generally very broad. In educational support, it is necessary to focus on:

1. Individual characteristics, patterns, options and strategies that are related to the child/student themselves;
2. Meeting effectively set educational goals, diagnostic and evaluation priorities (analysis, testing, child development opportunities, etc.);
3. Counselling and cooperation (with parents of pupils, mutual sharing of problematic educational situations, support for positive change processes, etc.);
4. Specific and high-quality modification of the environment of Snoezelen corners and rooms in schools and educational institutions in the sense of targeted selection of aids, devices, technology in the spirit of the principles and outlines of Snoezelen.

Similarity with foreign partners:

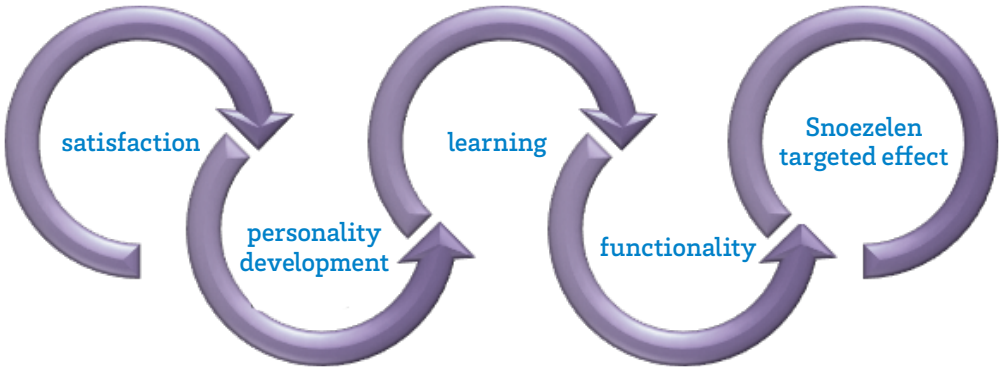
"...If the objective of the Snoezelen room is to become a playful space, the person chooses at each moment the element or object that captures their attention and moves through the space with total freedom. In this case, the professional is the mediator to create a comfortable, safe and healthy environment for each person, that is, an environment adjusted to them and where they have the opportunity to choose what they want to touch, see, smell, hear... etc. We are interested in the emergence of initiative, purposeful movement and spontaneity." (Statement of Ribes, 2021)

"...Colleagues in Poland call it 'free Snoezelen', that is a session without a scenario or a theme. Free Snoezelen can be used with children and with adults. But, even when we practice Snoezelen with children, we very often use a kind of theme, for example: exotic island, travelling in a balloon, a visit to mermaids, a journey to Africa etc. And, of course, we still observe 8 rules, we are not directive and don't order the participants about, but still we have this theme as a proposal for them (they usually gladly take it, and besides it ensures that they will not become bored with Snoezelen). The same is practising with Snoezelen for adults or seniors: we can have some themes for example as in a reminiscence – therapy or we can just leave the participants without this theme proposal then... we can call it a free Snoezelen." (Statement of Smrokowska-Reichmann, 2021)

A fundamental aspect of the common education of children and pupils with special educational needs is their **individual needs**, which we must consider and strive for the maximum possible development of each of them. In order to ensure that individual needs are met, the pupil must be known, researched and informed on an ongoing basis, and there must be cooperation. As stated by Vítková (in Bartoňová, Vítková, 2015), the most important feature of providing support measures and timeliness is related to the early diagnosis of the child. For pupils with more severe disabilities, especially those with mental, physical, and/or sensory disabilities, such needs are identified and must be provided for at an early age and in preschool. Snoezelen and its intervention can be of great help in detecting these needs and in activities related to their development and learning, thus supporting the maximum development of every child.

Distinguishing the Snoezelen intervention in special education terms is necessary for many reasons. The approach to the use of Snoezelen in the educational plane was described in his famous publication by Paul Pagliano (2012), who himself as a special educator keeps a very similar approach to work in Snoezelen to ours. The approach is built on four pillars, which Pagliano intends to be **contentment, development, learning and functionality;** highlighting only one of these pillars does not lead to adequate provision for all of an individual's special needs. By way of example, if we wished to build Snoezelen only on the pillar of learning alone, then we must also build it on the assumption of progress and development, which we exclude when the individual has regressive rather than progressive developmental tendencies. Development itself is also an inadequate pillar when on its own, because if the individual is not happy and does not feel good, which is an essential prerequisite of Snoezelen, then it is impossible to learn through sensory stimuli. By the so-called functionality, the fourth pillar, we mean the provision of a sequence of development or conditions that prevent the individual from taking the next steps in their development and receiving stimuli, for example, the negative adaptation of the individual to a multisensory environment and their inability to participate in this environment prevents the activities from being effective (Pagliano, 2012).

Diagram 6: Achieving the targeted Snoezelen effect in individual steps, 2022



III. CLASSIFICATION CRITERION – ENVIRONMENT

In its practical development, **Snoezelen as an environment** has expanded over the last 20 years and has become known as an **applied multisensory environment.**

There are different types of Snoezelen. Primarily we can classify them as: **indoor Snoezelen** (a room or several rooms or even a whole building created in the spirit of the Snoezelen philosophy) and **outdoor Snoezelen** (garden, outdoor areas, paths, playgrounds and parks).

Within the indoor Snoezelen-MSE, different types of Snoezelen rooms can be distinguished, the best-known being the so-called **white room, the dark room and the play room**. The rooms differ in colour, equipment and focus on the target group of clients.

In practice, the **white room** is still the most frequently chosen. The furnishing of the room is mainly aimed at the development of sight, touch, smell and hearing. It is used for quiet dominant activities such as aromatherapy, massages or relaxation. Usually the walls in the room are painted white and all possible equipment is also white. In this way, the walls, floors and ceiling become a vast three-dimensional canvas for the projection of colour effects. The focus is given mainly to activities with some equipment and aids. (Lotan et al., 2009, 2006; Novakovic et al., 2019) So as to facilitate the stimulus management, the white room is used where there is a risk of stimulus overload (for people with autism, dementia or psychiatric diagnosis). White is neutral, and it is much easier to create any kind of focused room from a space than from a coloured space.

The playroom is especially adapted for the development of the musculoskeletal system, gross and fine motor skills, vestibular and proprioceptive system. Its equipment includes, for example, swings, trampolines, soft mattresses, carpets made of soft and coarse material (Ponechalová and Lištiaková, 2010). It can also be called an 'adventure room' (Jirásek, 2004). It provides a safe place to play. It motivates and stimulates the client (most often a child) to be active. The room contains soft equipment that allows mobile clients to run, bounce, climb or jump (Ponechalová and Lištiaková, 2010; Harsimran et al., 2017).

The portable environment is a small, foldable, portable device measuring no more than 2 m^2 that is suitable for children and clients of all ages who are immobile. The environment can be folded and moved. As with infants, it is used for multisensory stimulation with aids that we choose and hang over the child. The portable environment is also suitable for recumbent clients (Filatova, 2014).

The inclusive environment – a common environment such as a garden or playground that can be transformed with carefully selected tools. The result is a space where individuals with and without disabilities can stay together. This environment is barrier-free, with carefully chosen colours also for individuals with visual impairments, there are auditory or tactile cues for individuals with hearing impairment, and it is safe for everyone (Filatova, 2014; Wagenfeld et al. 2019).

Both light and dark Snoezelen environments can contain within a single room elements of a sound room, interactive and water environments, soft play elements, a mobile Snoezelen element, a virtual or variable room and a social environment (Pagliano, 2001, 2012).

The interactive environment is combined with IT technology and various related highly functional equipment. Innovative Living Surface, i.e. projection on the floor or on the wall that responds to the client's movement. The interactive environment can also be combined with interactive goggles and a 3D virtual world in which imagination and experience play a major role.

The dark room was designed mainly for work with children with visual impairments. The aim is to stimulate visual abilities, differentiation of light impulses, awareness of light sensations and colour recognition. The walls, floors and ceilings are dark, therefore they act as a neutral base for highlighting different light effects. Light panels, phosphorescent objects exposed to ultraviolet radiation, located in the room, are intended to improve the intensity of visual perception. There is a regulated light in the room that changes according to the needs of the client or the type of activity. "Quiet contemplation" may be appropriate for this room (Ponechalová and Lištiaková, 2010; Jirásek, 2004).

The water Snoezelen consists of a pool or tub of water in which lights and colours are reflected. In this case, the water is used for proprioceptive stimulation, both static and dynamic. Furthermore, the water keeps children in a calm position, relaxes their muscles and lets them experience unexpected possibilities of movement. Movement in water is very healthy. Additional equipment consists of jacuzzis, showers, waterfalls, slides, lights and heatings etc. (Pagliano, 2001; Janků, 2010).

The outdoor Snoezelen has also become a very attractive feature in recent years, especially in residential facilities and schools. Its mission is the same as that of the indoor Snoezelen. The topic of Snoezelen gardens, parks, walkways, and overall outdoor spaces is currently being addressed by, among others, the founder of the Snoezelen concept, Ad Verheul.

Fig. 12: Outdoor Hipotherapy Snoezelen, De Hartenberg, NL, author'archive

Fig. 13: Bathroom Snoezelen, De Hartenberg, NL, author's archive

IV. CLASSIFICATION CRITERION – COMPETENCE AND LEADERSHIP OF THE PROFESSIONAL

The professional work of an expert who leads classes in the Snoezelen or uses it as a multi-sensory environment for various purposes in their activities is always based on their original profession and the education and certifications they have attained.

If we would like to show the breadth of professions that work more closely with the Snoezelen-MSE concept in the Czech Republic, then we would specifically focus on the following professions:

- Special educator, teacher, childcare worker, teaching assistant
- Psychologist, psychotherapist

- Rehabilitation worker, physiotherapist
- Occupational therapist, music therapist, leisure therapist and activation worker
- Social worker, social services worker, caregiver, personal assistant

The competences associated with these occupations are expressed in job descriptions, job responsibilities and activities related to specific occupations. As is obvious at first sight, the professions fall under different ministerial departments and their job descriptions are different. Within the scope of our study text, the focus is naturally on the special educator.

A special educator is a fully qualified educational worker and his/her role is to provide direct pedagogical, teaching, educational or special educational intervention. His/her target group is not only the pupil with special educational needs, but also the child/pupil at risk, in danger, with behavioural problems and also children/pupils intact of current special needs.

School special educators work mainly in schools, both mainstream schools at all levels and special schools. In the new millennium (by Decree No. 72/2005 Coll.), this profession was also anchored in the field of school counselling, which includes a team of counselling, prevention and intervention-oriented professionals in all elementary schools in the Czech Republic. Certainly, special educational support for specific pupils at an individual level is empowering and enriching for the children themselves, as well as contributing to the good climate of the whole school and to effective cooperation with the pupils' parents and other professionals involved.

In addition to the direct learning process itself, the school special educator is responsible for specialist education diagnosis and the special education counselling process. Although the special education diagnosis still has to be confirmed by the school counselling team (Pedagogical and Psychological Counselling Centre or Special Education Centre), it is the special educator who leads and prepares the entire intervention process, including early and continuous diagnosis and long-term evaluation.

The requirements for the professional qualification of a special educator are set out in Section 18 of Act No. 563/2004 Coll., as amended by Act No. 198/2012 Coll. and Act No. 333/2012 Coll. on pedagogical workers, as follows:

A special educator acquires professional qualifications through higher education obtained by studying in an accredited master's degree program in the field of educational sciences

a) focused on special education,
b) focusing on early childhood education or on the preparation of elementary school teachers or on the preparation of teachers of general education subjects in secondary

school or on the preparation of childcare workers, including supplementery studies to extend professional qualifications conducted by a university, or

c) study field of pedagogy and additional studies to extend professional qualifications conducted by the university.

The professional competences of a special educator are oriented primarily towards special education and counselling work in schools. In a gradual process, first he/she is responsible for the depistige of pupils with special educational needs, prepares, evaluates and processes the results of this activity. Secondly, he/she diagnoses the special educational needs of pupils on the basis of their examinations, questionnaires, medical histories, observations and prepares, collects and analyses the results of the examinations. Finally, he/she also determines the main problems of the pupils, creates individual support plans in and out of school. The special educator carries out group and individual interventions, i.e. educational, re-educational, compensatory and stimulating activities. Previously, i.e. before 2004 (before the first amended school law), the special educator had been more involved in the diagnostic activities of school counselling centres than in school intervention. Mertin and Kucharská (2015) draw their attention to this very significant shift in the Czech education system, because intervention is a crucial element that is related not only to education, but also to further personal development and life beyond school and school facilities.

Not only that, a special educator also has the competence to communicate and pass on information to the parents of children, and lead and implement preventive activities even in the case of families with problematic relationships, problematic behaviour and social conditions.

He/she also participates in the school's cooperation with teachers, in the preparation and adaptation of barrier-free conditions, in career counselling, and in proposing various approaches, procedures and methods that are adequately suited to individual pupils and their situation. He/she can introduce new concepts and coordinate them and guide other teachers methodically. The special educator also works closely with teaching assistants, coordinating and methodologically guiding them.

Although the diagnostic process is not the only task of the special educator, it is one of the most important processes, especially for quick initiation of a specific intervention. Timeliness, initial probing and consideration of primary intervention are of utmost importance for the child.

In the *Strategy for Education Policy of the Czech Republic until 2030+*, we can find two basic strategic objectives: to focus education more on the acquisition of competences needed for active civic, professional and personal life and to reduce inequalities in access to quality education and to enable maximum development of the potential of children, pupils and students.

The diagnostic process and its correct application of dynamics and initiation is the **first step in supporting children and pupils in schools and the shift from a static to a dynamic**

diagnostic model, which would move from identifying a specific diagnosis of a child to identifying the level of support, is the main diagnostic task of the special educator.

The educational active involvement of a teacher must be based on deliberate observation, establishing anamnesis, conducting interviews and other appropriate diagnostic procedures and methods which serve as a means for identifying individual needs and recognizing the current level of development on which we can build our intervention.

The multi-sensory room offers possibilities for these various special educational purposes, and by, for example, starting a spontaneous observation activity in Snoezelen, based on a properly developing relationship and positively oriented situations, we can make the whole beginning of the intervention process with the child easier and more pleasant.

In addition to the professional tasks and competences, when working in Snoezelen we place great emphasis on the **personality components (traits) and competences of the Snoezelen worker**, who should be characterised above all by:

- sympathy and emotional warmth,
- empathy,
- boundless patience,
- creativity,
- ability to motivate,
- intrinsic social competences and skills,
- responsibilities,
- personal approach to the client and
- respect for the client and his individuality.

The guide/worker in Snoezelen should be **highly socially sensitive.** This term, in other words being socially perceptive, primarily involves getting to know people, being attentive to their differences and keeping constructive attitudes towards them. A socially perceptive person should have, among other things, knowledge of social and emotional intelligence, and should have acquired the skills needed to get to know people and deal with risky situations with them. Social perception is influenced both by information apparent at first glance (physical appearance, expressive and other motor displays, verbalization and verbal behavior) and by other variables of the perceiver (internal feelings and knowledge of perceived stimuli, self-concept, value system) and other impressions.

Particularly important parameters of a guide in Snoezelen are **empathy, active listening, ability to communicate verbally and non-verbally and excellent concentration, without prejudice or stereotype.**

Joy and respect for the client, patience and love without reservation.

1.2 SPECIFICS OF SNOEZELEN AND SPECIAL EDUCATION

Special education as a discipline has been clearly modified in recent years and has shown many forms. The strictly interdisciplinary approach to itself has already surpassed this field. The forms of special pedagogy are emerging in the context of modern trends of the time, which is open to global transformation of the approach to the individual and his/her qualities, societal changes and innovations at the international level. The current paradigm of special education is considered multidimensional in contrast to the historically interdisciplinary orientation and character of the discipline. Special pedagogy as a discipline dynamically evolving, reflecting the current state of knowledge of the collaborating disciplines, which are mainly pedagogy, psychology, medical science, sociology, social work and law. Within its framework it pays attention to the promotion of the concept of lifelong learning, the reduction of inequalities in education, support to the individuals and entities involved in upbringing and education, as well as legal representatives. It also pays attention to the educational staff in education, bearing in mind the issues of diversity, heterogeneity, equality and equity that are highlighted by the professional community in institutionalised education. The object of the discipline's interest is the persons, factors, processes, mechanisms and their contexts that enter into a person's life and cause barriers and limits to socialization. It is involved in all areas of lifelong education, counseling, diagnosis, rehabilitation, compensation, employment, prevention and other areas related to quality of life. The traditional diversification of special education includes the person with a special need in the context of his or her heterogeneity, that is, differences in development or functional impairments or chronological peculiarities, and the degree of support that ensures a certain quality of life. However, the modern discipline accepts the specificities of people with special needs as a challenge to society for social inclusion, inclusive policies and systematic humane development of the population. It is through the person with a particular otherness that we come to define originality and individualize approaches that would otherwise lack sense and the essential uniqueness of the human existence.

Snoezelen is considered in special education as an educational, therapeutic or educational-therapeutic method. It is interpreted as a whole, as a concept that includes specific methods, techniques, approaches that can be used in field practice.

For special education, Snoezelen is an innovation in procedure, content and function. By placing a fundamental emphasis on sensations and experience, in an individualistic spirit, it ranks among educational-therapeutic and formative concepts.

Snoezelen can be a very expressive, flexible and powerful tool in the hands of a special educator. It can have its place in schools, but also in day care, homes, counselling centres and activation and relaxation centres.

Snoezelen finds its application in clients of different ages:

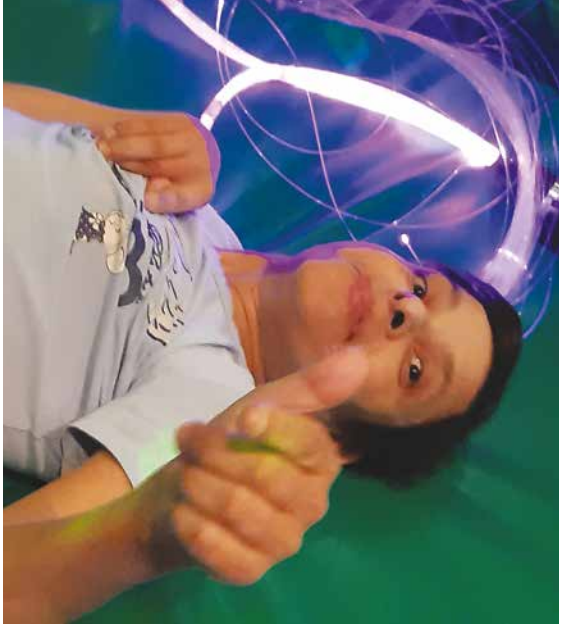
Due to its possibilities, it is often used in early childhood. This is due to its flexibility and the applicability of different modifications of Snoezelen in the context of progressive ontogenetic changes in the child's personality development. Through a multi-sensory environment, it is possible to ensure the development of the individual while respecting the peculiarities, specific needs or circumstances that accompany his/her development. In the time of preschool and school age, it is advisable to imply Snoezelen directly into educational structures, not only for the cognitive development of pupils, but especially for the prevention and desirable intervention of special educational care, taking into account the special educational needs of pupils. As we have already mentioned many times, its origin was related to people in adulthood, or within the current objectives of special education, which in the Czech Republic is not only focused on childhood, its use is mainly leisure and therapy based but also for developmental and relaxation purposes, suitable for adult clients and seniors.

Owing to the empirically proven results, we can recommend Snoezelen as a re-education, rehabilitation or compensation method, as a means for activity and relaxation.

A special educator is primarily an educational professional whose work goals are fulfilled by creative, empathetic and motivational activities through which he or she develops individuals with special needs towards improving their inclusion, establishing and maintaining relationships, and communicating with other people. Field school practice shows the effective applicability of the Snoezelen concept in the curriculum system of institutionalized school education, in counseling and for self-actualization and leisure activities of children. The Snoezelen in conjunction with the **"special room"** guarantees a pleasant atmosphere, a pleasant temperature, subtle lighting, low volume sounds and voices which are beneficial for the acceptance and interaction of social relations, haptic or other sensory stimuli.

Special educators or teaching assistants use it in their work, especially for school education of pupils with moderate and severe mental disabilities, combined disabilities and autism.

The Snoezelen concept answers the questions of **how to teach, how to motivate, how to engage and how to convey the curriculum in an entertaining way** and make it easier for even those pupils with very extensive special needs to get to know the world around them better. A special educator can create a unique atmosphere in a multi-sensory room, in which he or she can offer his or her clients **to experience moments and situations in a different way than usual**, and thus gain a personal **experience.** In this way, each pupil can more easily remember, retain and subsequently recall what they need. In this way, we strengthen their self-confidence, accept their uniqueness, promote being in the here and now and emphasize the uniqueness of the experience. Snoezelen rooms, due to their variability, can use different aids, and the stimuli that arise through them are most often directed towards the development of perception, imagination and thinking. Pupils have a greater opportunity for their self-actualisation. On the other hand, Snoezelen gives teachers the opportunity



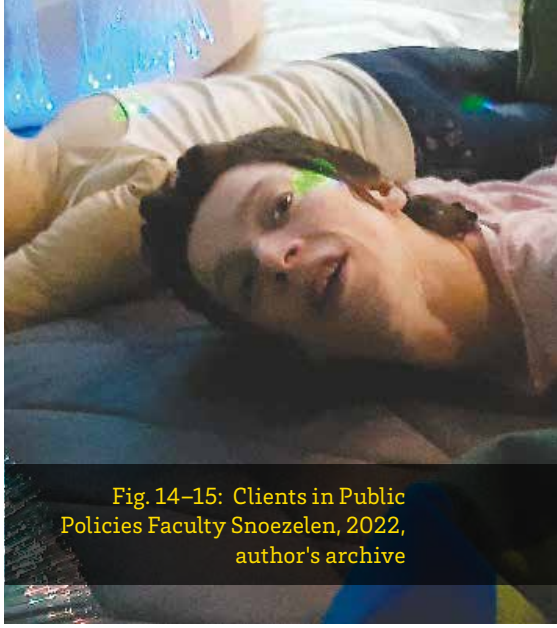


Fig. 14–15: Clients in Public Policies Faculty Snoezelen, 2022, author's archive

to **overcome the traditional methods, contributes to professional growth, stimulates creativity** and improves the educational process.

Snoezelen can be **incorporated into various lessons at school, into various school and extracurricular activities**, whether it is the development of reading, mathematics or musical or artistic skills, into classroom lessons or personal interviews, relaxation moments etc. Snoezelen in schools vary from just small corners to whole rooms.

1.2.1 METHODS AND WAYS OF WORKING

The Snoezelen rooms offer special educators different possibilities for meeting the developmental goals of specific clients, so in the hands of special educators we are most often talking about the **educational goals of specific students.**

If we take inspiration from modern pedagogy, then the special educator should see the Snoezelen environment as an **opportunity** that is made available for the fulfilment of educational goals, i.e. pupils can learn there thanks to multisensory stimuli and the special educator must use this opportunity to their advantage (cf. Starý et al, 2008).

If we start to think about the pupils with whom a special educator works competently in Snoezelen, **their aptitudes and conditions for learning are very different**, and they are inherently very different, especially for working in such a specific environment as Snoezelen.

The basic approach a special educator must work with in Snoezelen is **differentiation**. Different pupils are suited to different ways of how to present some teaching material,

different pace, different aids, different stimuli, different support, etc. Therefore, it helps the teacher to **classify the** pupils **into different groups or work with them individually**. Depending on the pupils' internal or external predispositions and the individual environmental conditions, the special educator must take into account that it is not possible to work in the same way in a Snoezelen as in a regular classroom. The task of the special educator is, in the first phase, to **systematically organise the pupils in the Snoezelen in a way that suits them and their education in it.**

The following pupil assumptions can be helpful, which the special educator notices before starting the Snoezelen intervention:

Diagram 7: Pupils' prerequisites for intervention in Snoezelen, 2023

Internal prerequisites	External prerequisites
• motivation • previous knowledge and skills • attention • memory • intelligence • personality traits (especially volitional) • competence to learn • learning style	• family environment (backround) • material and non-material characteristic of the environment • the school environment – each pupil responds differently to the peda-gogical conditions of the school and classroom, the type of curriculum, its relevance and clarity, the timing of the learning at school, the ways in which learning is externally motivated at school, etc.

The follow-up approach is **individualisation,** i.e. tailoring the work to the individual, i.e. in the context of information on differentiation, it is a form of intervention concentrated on supporting one individual pupil. The **individual approach** is the cornerstone of every teacher's work. It allows us not only to respect the originality of each child, respecting his or her unique characteristics and needs, i.e. in the conventional sense, his or her positives and negatives, but also to respect his or her requirements in terms of the layout of space, the organisation of educational schemes, the time available and the pace of work, etc.

In a regular classroom setting, individualization is often a difficult task, but when complementing the educational process with a specific Snoezelen corner or even a whole multi-sensory room, this approach can be applied much more easily. The result can then be not only greater satisfaction on the part of the pupil, but progress in learning and the acquisition of competences that were difficult to achieve when working together with all pupils. Respecting the individual peculiarities of each pupil, both in terms of content and method, is a fundamental prerequisite for the work of special educators. The principle of exercising the right to a unique educational path and the methods that are most appropriate

for human development helps us here (see Convention on the Rights of Persons with Disabilities, 2007).

For Snoezelen and the work in it, we most often use external differentiation of pupils, i.e. their classification according to individual requirements, needs, abilities and performance so that we focus not only on educational goals but also on **internal emotional mood, positive motivation, work with social skills, establishing and nurturing relationships, competences not only for work, but especially personal development, communication and social competences.**

According to our leading experts, with pupils who are divided into smaller units for work or are educated individually there is no risk of problem behaviour, which is often related to different educational needs, motivation and goals (cf. Mareš, 2013) Using exactly this form of education the educators can achieve better educational results in Snoezelen, not only with those who are considered to be rather average to below average performers, but also with those whose learning aptitudes are higher and the educators do not have the necessary space to be able to devote more attention to them.

Another method of work, which is often used by special educators in multi-sensory rooms, has been adopted, in a way, from the TEACCH programme and Loov's intervention therapy. It is called structuring. This style of work facilitates the student's transition between successive activities throughout the day. Structuring is used in schools during the school day, in the daily routine and in the individual routine of the children. Its undeniable advantage is respect for the child's developmental stage and his or her mental and emotional level.

When it comes to Snoezelen, we often miss the basic fact of this environment, namely its structured layout. Multisensory rooms must have an orderly structure for an individual, they must not only provide a certain charm and pleasant impressions for their participants, but also a certain degree of power to navigate the environment so that the client can perform certain activities and so that we do not overwhelm them with too many aids and technology and thus provoke negative rather than positive reactions.

In Snoezelen we maintain a visible arrangement that helps us to answer the following questions: where I am, at what time, for how long and why I am here, what tasks I will solve here, what feelings I have here, because this is the only way the client will not get into a stressful situation, will not panic, will not respond with affective behaviour, aggression or other undesirable types of behaviour. This is also related to a certain phasing and structuring

of space, time and activity, which must be thought out in advance for the intervention in the multi-sensory room.

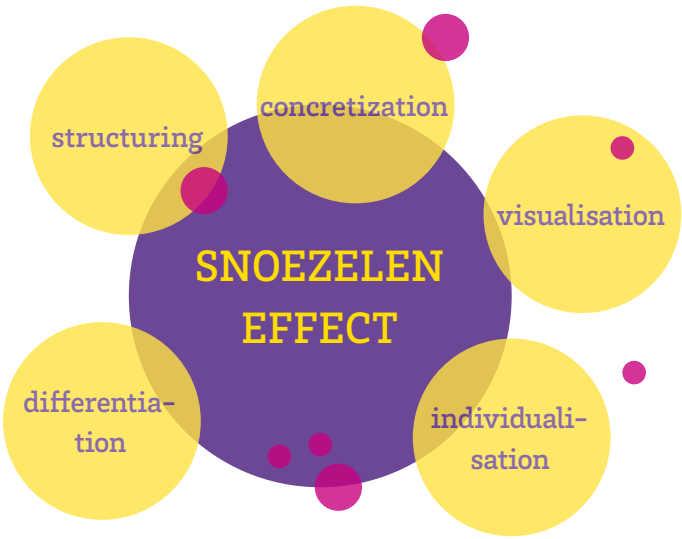
Snoezelen is therefore related to a certain structure of the space, which does not allow for constant changes, but on the contrary a calm, pleasant stability of the environment into which the client enters, a clearly structured space that ensures a positive stay in the room. This structure must be adequately adapted to the personality of those who will be staying there, but also to their motor skills, intellect and educational objectives. Such an environment can then compensate for the client's deficiencies, and we can then respond flexibly to newly manifesting requirements and to the long-term special needs of clients. The structure of the environment must be understood and gradually oriented by the client so that he/she can also understand the tasks associated with the environment.

Time is also related to structuring as a methodological approach**.** For many clients, time is a completely abstract quantity that must be controlled by some pre-set limits that indicate its application. Such a limit is usually the same routine of the day, the boundaries of the beginning and end of activities, a certain sequence of events and the anticipation of other activities.

Precisely because of the clear temporal structure in Snoezelen, we use **ritualizations and stereotypes associated with transitions, beginnings and endings of activities.** These often non-verbal activities can ensure a better understanding of the clients, who, even with the speech deficits and reasoning abilities that are associated with verbal instructions, often do not understand the questions: what are we going to do now? what will follow? what have we already done here? and similar.

In Snoezelen, we manage to support the temporal structure with specific visual elements, which can be specific 3D objects, 2D images, time orientation maps, but also other materials. All the **structures we use in Snoezelen are always completely original and individual in nature, adapted to the given client or clients.** The structure of the environment and the time helps not only the pupils but also the special educator, who can go on building on the already established arrangement, develop and adapt it flexibly, and at the same time bring some inspiring novelty to the activities, an interesting and varied activity that will support the pupils in their development with an emotional and joyful encounter and gained experience. The visual support that is associated with this structuring not only allows for a quicker understanding of the whole situation, but also allows and facilitates independence and autonomy in other situations. Snoezelen thus becomes a room for the pupil and the special educator that has an obvious motivational potential for activities and work.

Diagram 8: Snoezelen effect, 2023



The multisensory learning and multisensory teaching that take place at Snoezelen involves using visual, auditory, kinesthetic-tactile pathways and other stimuli to make the information we receive more permanent, and better equipped. It has to do with improving memory and cognitive abilities, and improving learning.

Various studies define multisensory education as an approach that engages all the senses simultaneously, displaying information through visual, auditory, kinesthetic, tactile, olfactory and gustatory forms to help children learn more efficiently. Multisensory teaching is therefore a way of teaching that engages more than one sense at a time. Using sight, hearing, movement and touch allows children to connect what they are learning in multiple ways (Luque, 2022). In multisensory teaching, we focus on the different quality and quantity of sensory perception, by which we mean the process of detection, that is, finding out, searching and retrieving stimuli from our surroundings and environment.

Even within special education, we use information from theories that have emerged throughout history regarding multisensory stimulation that are important to us. For example, we are thinking of Ayres' sensory integration, which states sensory integration as a neurological process that organizes sensations from one's own body and the environment and allows them to be used effectively. As a complex process, sensory integration gives us information about what is going on inside and outside (Ayres, 1979 in Kilroy, 2019). While another theory highlights the facts of what is called multisensory integration, i.e. the unification of information obtained simultaneously from different single-sensory channels into a single perception, which is very complex for many individuals. Deficits in multisensory integration have been found in individuals with autism spectrum disorders and individuals with brain disabilities (Marks et al., 2018).

Research on memory demonstrates that multi-sensory exposure to information, i.e., the presentation of information through multiple senses, promotes the remembered content in an outstanding way compared to a single-sensory exposure (Luriia, 1987). Moreover, this mode of learning helps to retain information for a longer period of time and increases attention during the learning process itself.

One of the first experts, very well known in the Czech environment today, was Maria Montessori (1912), who promoted multisensory learning and recommended the use of specific sensory materials and aids that could be heard and seen when working with them and moved and changed in various ways. Then in the 1970's, Andreas Fröhlich (1982) developed the now well-known and frequently used Basal Stimulation Method, which was primarily intended to help people with severe disabilities to gain a better quality of life. In his method there are three main areas of intervention: somatic, vestibular and vibratory. The basic principle of Basal Stimulation as stated by Vítková (2001, 2006), is considered the finding that by using positions, pressures, tactile sensations and movements, we can help the individual to better understand the reality of the everyday world, we can convey information to them through experience and sensory stimuli.

However, the so-called multisensory environment cannot be viewed as just materials, aids and nowadays ubiquitous technology. For such a large intervention it is necessary to create, in particular, an intensive interaction that always focuses on improving social and communication skills and individual interaction between teacher/educator and pupil/child. Then we can think of a multi-sensory practice (Longhorn, 2011).

Multisensory methodologies in our Czech environment have mostly been implemented to support the development of education of children and pupils with various limitations and disabilities. An example of a typical disorder that is also affected by the reception and storage of information through the senses is dyslexia and other learning disabilities. The education of students with specific learning disabilities can also be better addressed through the use of multisensory instruction. (Jucovičová, Žáčková, 2007) Students with dyslexia are helped to improve their reading, writing and spelling skills through the stimulation of visual, auditory and tactile perception by the Orton-Gillingham method (1997), which we consider to be a direct, explicit, multisensory, structured, sequential, diagnostic and prescriptive way of teaching reading and writing. This approach also works for common students because it uses multiple senses simultaneously, offering more connections and associations to the brain so they can also be better stored and equipped (www.ortonacademy.org; Newman, 2019).

The last theory which we mention here as a positive aspect of multisensory approaches in general is the Gardner's theory of multiple intelligences (1997). It says that all children have their own specific strengths and learn in different ways. Thus, implementing an approach that most enhances a child's ability to perceive information from the environment provides more opportunities to learn. This theory suggests that the traditional psychometric views of intelligence are too limited. Gardner first outlined his theory in his book Frames of Mind:

The Theory of Multiple Intelligences from the year 1983, where he suggested that all people have different kinds of "intelligence". He suggested that there were eight intelligences, and it was possible to add a ninth "existentialist intelligence". While a person may be particularly strong in a particular area, such as musical intelligence, they most likely have a range of abilities as well. For example, an individual may be strong verbally and musically (cf. www.verywellmind.com, 2022).

In recent decades, there has been a further evolution of multisensory theories and environments, technological developments such as virtual reality and virtual games which facilitate the use of multiple sensory channels simultaneously and allow people to respond with their own bodies. Most researchers use virtual reality to increase intrinsic motivation in students and refer to a narrow range of factors such as constructivist pedagogy, collaboration and gamification when designing their experiences (Kavanagh et al, 2017). As Elmqaddem (2019) argues in his paper, technological advances allow us a new type of learning that better meets the needs of the 21st century learners who want fun, interactivity, involvement and manipulation with objects.

Multisensory methodologies, however, have most often been developed as educational responses for children with special educational needs, with the aim of stimulating different senses simultaneously, focusing on each child's learning strengths and capabilities.

Special pedagogues' statements using Snoezelen:

"In this room it is possible to combine pedagogical activities with therapeutic elements. Including other therapies such as basal stimulation, vision therapy, aromatherapy, music therapy, gentle massages and others, we focus on the development of sensory perception, the development of visual and auditory perception, the development of spatial orientation, verbal and non-verbal communication, and rational education. Activities in Snoezelen help to reduce hyperactivity, aggression, also increase attention and concentration, refine fine and gross motor skills, strengthen self-esteem and self-confidence, lead to activation and development of cooperation in the team, help to establish interpersonal relationships. They are always a pleasant experience for pupils with combined disabilities." https://www.zszahradka.cz/stranka-snoezelen-83

"The essence of Snoezelen is based on a holistic view of the client. It enables differentiated perception, awareness of one's own body, develops interpersonal contact and communication. Everything takes place in a state of relaxation, in a comfortable position and the client chooses from structured stimuli. Snoezelen is used for sensorimotor and basal stimulation, for mental and physical calming down, relaxation, for the support of education and training, development of emotionality, decrease in aggression and self-aggression." https://www.slunickoturnov.cz/specialni-pece/snoezelen/

"In the past, we used the Snoezelen rooms as relaxation rooms where we provided different types of massages, or the students just passively watched the light effects in the rooms and listened to relaxing music, so I did not believe that they would become intrested in structured lessons and achieve any visible results. Also for this reason I set only general goals, for example: to follow the activities performed by the teacher and not to leave the place, to engage in the activity with assistance, to accept the activities performer and to concentrate attention on the activity." https://skola-ostrava.diakonie.cz/vychovne-vzdelavaci-a-terapeuticke-pristupy/snoezelen/snoezelen-koncept-aplikovany-u-ctyr-zaku-s-pas-a-t/

"In its very core, the Snoezelen method is based on the premise that our senses are easily accessible in the atmosphere of comfort and ease. A healthy person is able to find places on their own where they feel comfortable without much difficulty. It is necessary to create such places for people with disabilities. Like that it is possible to reach their senses in a very selective way. At the same time, such people are given space for their spontaneous reactions." https://www.zsrako.cz/web/o-skole/o-skole

1.2.2 STRUCTURED LESSONS

A typical activity of a Czech special educator in Snoezelen is the implementation of a structured lesson. Structured lessons are thematic and targeted lessons that correspond to the abilities and competences of specific clients. Their task is to introduce the selected topic in the environment of Snoezelen and to develop, differentiate, specify and concretize the topic using this environment and the possibilities of work offered here – a multisensory approach, individual approach, structuring, visualization and other methods. The structured lessons are implemented in the following phases: preparation – implementation – evaluation.

PREPARATION

PREPARATION FOR A CLIENT – WHAT DO I KNOW ABOUT YOU?

This first and very important preparatory phase includes a diagnostic profile of the client, i.e. a special education diagnosis for the purpose of working in Snoezelen. Here, special educators focus primarily on examining the level and quality of the following areas of the client's personality that influence the work in the multi-sensory room:

- motor skills (gross, fine, eye movements, articulatory motor skills, graphomotor skills, sensorimotor skills and motor coordination);
- level of perception (vestibular, tactile, kinesthetic, visual, auditory and rhythmic);
- verbal and non-verbal communication;
- reasoning skills, memory, concentration and observation skills;
- spatial and temporal orientation;
- social ties;
- emotional state;
- behaviour patterns, stereotyping and specific behavioural styles (e.g. related to autism);
- level of other skills and abilities.

PREPARATION OF THE TOPIC – WHAT WILL BE OUR GOAL AND HOW WILL WE FULFIL THIS GOAL BY CHOOSING A SPECIFIC TOPIC?

To begin with, we recommend that special educators think about whether they will use the multi-sensory room to develop a specific thematic unit that follows from the Framework Curriculum (Primary education, Primary special education, Pre-school education, etc.) or to carry out activities that are not related to this. Snoezelen can be used not only in an educationally supportive way, but can be based on the development of the child's positive motivation, self-actualization, personal growth, relationship development and other areas, leisure or in a socially therapeutic way.

Objectives which are related to education are work objectives and in structured lessons they are often related to the cognitive development of every pupil. The objective and its partial tasks should be set thoughtfully and also in such a way that they can be followed long term.

Preparation simply means thinking through the following components of future lessons:

- to set the tasks and objectives of the lessons
- to think about the timing of the sub-sections
- to determine didactic and methodological support (how I will work, including activation and relaxation)
- to create content for individual activities
- to think about adequate rituals, assessment and lesson closure.

PREPARATION OF THE ENVIRONMENT – WHAT WILL I NEED FOR THE CHOSEN TOPIC? HOW AM I GOING TO STRUCTURE AND MODIFY THE SNOEZELEN ENVIRONMENT ACCORDING TO THE CHOSEN TOPIC?

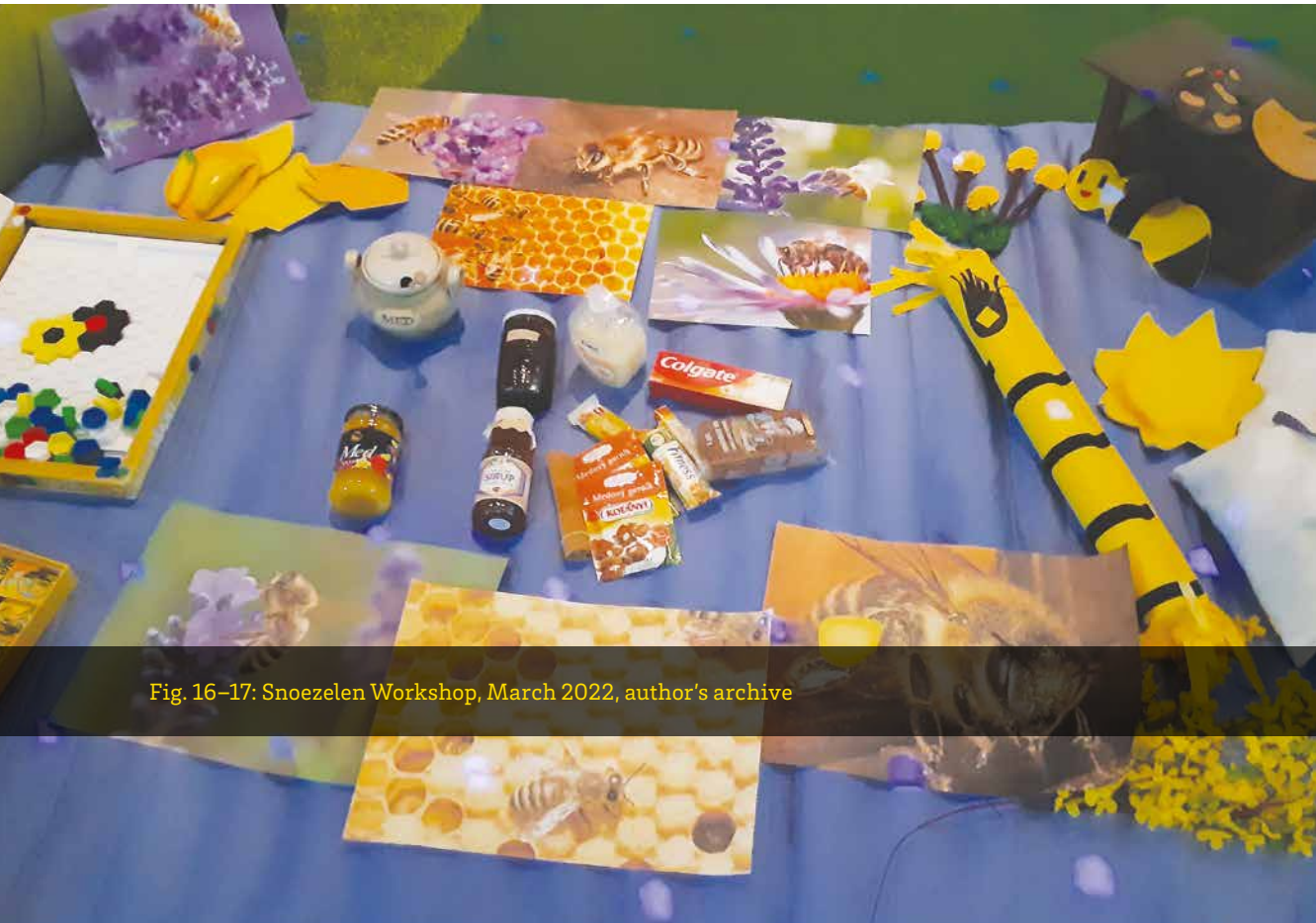


Fig. 16–17: Snoezelen Workshop, March 2022, author's archive

IMPLEMENTATION

WHAT IS THE CONTENT OF THE STRUCTURED LESSONS IN SNOEZELEN?

Implementation means that we will translate the preparation into the sub-contents of individual lessons together with the client. Each structured lesson should include:

- greeting (ritual)
- active part
- relaxation part
- conclusion (ritual)
- feedback

The proportion of active and passive parts of the lessons does not have to be the same, but should be adequately adapted to the needs of the client, and the distribution of these parts can be repeated and developed.

EVALUATION

WE ALWAYS RECORD, SYSTEMATICALLY EVALUATE, PROVIDE FEEDBACK AND DEVELOP.

To conclude, we must never forget about evaluation or assessment. It is the only possible end to any activity, lesson or class. Of course, the client also expects some conclusions of the activities. In order to have a unified understanding of the situation and to grasp the evaluation of the activities, it is necessary to work together on a final ritual. For this ritual it is possible to use some particular and specifically designed activities, informal evaluation and various alternative elements. The ritualisation anchors the knowledge acquired and consolidates the client's experience in the room.

An example of a topic in progress according to the Framework Educational Programme of a special Elementary School for pupils with severe mental disabilities and combined disabilities. Autumn and Autumn-related activities (Eva Janků, 2021)

Development – sub-objectives of the lessons	Examples of activities
Visual perception	• pictures and products – differentiation, recognition and comparison • puzzles, matching real objects to pictures • activities with fruit, vegetables and natural products • observation of potato growth in a jar

Development – sub-objectives of the lessons	Examples of activities
Auditory perception	• playing simple musical instruments • singing and listening to folk songs with the theme of autumn days
Haptic perception	• harvesting and sorting of crops • walking barefoot on chestnuts and acorns • activities with fruit, vegetables and natural products • massages
Olfactory perception	• activities with fruit, vegetables and natural products • aromatherapy lamp with the scent of forest trees and fruits
Taste perception	• fruit, nuts and potato tasting • products
Gross motor skills	• playing the chimes • movement exercises • collecting acorns, chestnuts, walnuts and hazelnuts • walking barefoot on chestnuts and acorns
Fine motor skills	• products and massages • blind differentiation of objects • recognising fruit and vegetables without a visual check
Graphomotorics + visuomotorics	• making "the harvest" theme products
Thinking	• matching the months of the year to autumn • matching real objects to pictures • selecting the current month • counting the number of collected acorns and chestnuts • sorting chestnuts and acorns and sorting them according to size • learning about fruit and vegetables
Memory	• poem about a potato accompanied with movement • matching individual months • picking the current month • autumn crops theme songs and poems • recognising fruit and vegetables without a visual check

Development – sub-objectives of the lessons	Examples of activities
Imagination	• looking at and naming fruit, vegetables and natural products in pictures • recognising fruit and vegetables without a visual check • observation of potato growth in the jar • foods guessing game
Communication	• months matching • naming fruit, vegetables and natural products in pictures • poems and songs with the theme of autumn crops
Attention	• playing simple musical instruments • competition in collecting acorns and chestnuts hidden under leaves • picking walnuts and hazelnuts • food guessing game • observation of a potato growing in the jar • massages
Motivation	• a letter from Mr. Autumn • competition in collecting acorns and chestnuts hidden under leaves • food guessing game • food tasting • observation of a potato growing in a jar • massages
Self-service	• preparation of a simple dish (salad)
Social behaviour	• competition for collecting acorns and chestnuts hidden under leaves (promoting healthy competition and cooperation) • mutual massages
Own experience	1 learning about and tasting food 2 massages 3 collection of natural products 4 making products

1.2.3 PARTIAL RESEARCH FINDINGS WITHIN SNOEZELEN VERSUS SPECIAL PEDAGOGY

FINDINGS THAT RELATE TO THE PRACTICAL LINE OF SPECIAL PEDAGOGY (EDUCATION) IN THE FIELD WORK:

- Owing to the development in the field of didactic aids, information and communication technology, the modernization of physical and spatial capacities of schools and facilities for children and pupils with severe disabilities, and also thanks to the availability of financial resources, the occurrence and implementation of Snoezelen as a concept, or its sub-components at least, in the educational environment has had an increasing tendency.
- Inclusion-oriented schools and educational institutions are also beginning to apply the attributes of this concept in their educational platform. They are changing educational approaches, organisation, structures of educational units and teaching staff are interested in courses, seminars within the system of further education for teachers.
- The special educators involved in the Snoezelen concept in their profession have the appropriate education and are properly trained in alternative methods and therapies. Most special educators trained in the Snoezelen concept can be found in special elementary schools.
- In recent years, the concept and its application have also been encountered by teaching assistants, who have welcomed its results.
- Pupils welcome the application of Snoezelen and they respond positively to it. They are more motivated and interested in exploring thanks to the multi-sensory environment and the offered stimuli and experiences. They stop being afraid and become aware of the ways that can be used to share their experiences and feelings.

FINDINGS RELATING TO SCIENCE AND RESEARCH IN THE SNOEZELEN AREA:

- There is an obvious and significant lack of literature compared to other topics in special education. There is an absence of literature written in Czech, the foreign literature is mostly in English or German.
- If research projects are carried out in this area, their design and procedure show signs of simplification rather than rigor, which belittles the willingness, interest and action taken by the researchers. The validity of the observed data is then limited.
- The knowledge that stems from the research carried out so far is not developing, it is not advancing. There is a confirmation of what has been found, or if it moves, it moves in a systemic “slow motion”.
- Variations in the target group in research, its characteristics, or variations in the signs it is characterised by in combination with different methods and techniques and so

on, rarely occur. In the term “combined disability”, the combination with intellectual disability dominates. For example, impaired communication skills or partial functional deficits occur very sporadically or not at all.

FINDINGS IN RELATION TO THE ACADEMIC ENVIRONMENT:

- There are very few professionals in the academic environment whose career paths, fieldwork, research and teaching experience could provide a coherent perspective on knowledge. This has a direct impact on research orientations of larger or smaller scopes. The same, the given fact is related to activating students’ interest in the topic, supporting their professional growth in this field and building their staff capacity.
- Only two universities in the Czech Republic have a multi-sensory room to concretise the Snoezelen concept for students and academic workers.
- In the research carried out as student assignments we rather see typifications, generalizations and archetypes related to the group, specific activities and the objective of work in Snoezelen.
- There are terminological inaccuracies, incorrectly grasped procedures, inadequately applied methods and techniques.
- In tertiary education, the Snoezelen concept is an alternative support method, which is mainly used for work with people suffering from severe combined disabilities.

Fig. 18: Students working in Snoezelen, 2022, author’s archive

1.3 CASE STUDIES FROM THE CZECH REPUBLIC

The following case studies are linked to the Czech environment. The aim is to show the possibilities of Snoezelen intervention for specific clients, children, pupils or adults.

A boy with hearing impairment

This is a boy aged 12 who wears bilateral hearing aids. He is a 4th grade pupil in an elementary school.

Family history

The boy grew up in a traditional functional family of five. Both parents are healthy. The boy has two sisters – the elder sister suffers from an allergy, the younger sister is completely healthy.

Personal history

The boy was born from the second pregnancy. The birth was without complications, on a due date, spontaneous (3250 grams and 49 centimeters). Due to aspiration of amniotic fluid, he was placed in an incubator for about 10 hours after birth. The boy was subsequently diagnosed with hearing impairment, cerebral palsy, psychomotor disability, Asperger's syndrome, attention deficit with a hyperactivity disorder and asthma. Due to his combined disabilities, the boy has been monitored in neurology, phoniatry, allergy, orthopaedics, paedopsychology, psychiatry, rehabilitation, speech therapy and is a client of a special education centre.

Medical examinations

At about six months of age, the boy's mother noticed that he was sometimes unresponsive to sounds, and subsequently a hearing test was taken with the diagnosis of practical bilateral deafness. He wears bilateral hearing aids and is in the care of a phoniatrist. However, he was not recommended as a candidate for cochlear implantation. The cause of the hearing impairment is listed as a structural abnormality of the central nervous system. After examination by a neurologist, the boy was diagnosed with cerebral palsy – central hypertonic syndrome, a psychomotoric impairment. The examination of motor functions shows that the boy's gait is with a step on the inside of the feet, his spine is slightly scoliotic. Physical mobility is more limited for the left-hand side due to cerebral palsy, muscle hypertonia is manifested, fine motor skills are impaired (less involvement of the left hand). The boy stayed in the spa several times with the aim of rehabilitation care (exercises, relaxation of muscular hypertonia etc.). During his schooling, there was a suspicion of autism spectrum disorder expressed, followed by a diagnosis of Asperger's syndrome by a psychiatrist. On

the basis of a specialist examination, asthma was also diagnosed. The boy is allergic to cow's milk, feathers, house dust, dust mites, grass pollen, grain and cats.

Education and special education support

Since 2009 he has been a client of the Special Education Centre for the Hearing Impaired. Since September 2011, he has been attending a kindergarten for the hearing impaired on a daily basis due to his hearing impairment. The boy had a school deferment. In the school year 2014/2015 he started attending the preparatory year for elementary school pupils for the hearing impaired and is currently a pupil of the 4th year of this school. The boy is educated in a class of five boys, all with combined disabilities. From grade 2 of elementary school he has been educated according to an individual education plan, which was developed by the class teacher according to the boy's individual needs with regard to his combination of disabilities. He is able to cope with the curriculum adequately for his disability. The TEACCH programme was introduced into the lessons with a focus on structuring and visualisation. There has been a teaching assistant present in the classroom since 2016. The boy is very pleased to be attending school and enjoys it. He is very happy at school, and is thriving in the educational process after the introduction of his individual education plan.

Communication

The boy communicates using sign language and does not produce any spoken language. He is fluent in dactyl and gestures. Emphasis is placed on the development of his sign language skills and parents are reminded of the importance of this means of communication.

Behavioural manifestations

At the beginning of his schooling, he was a very problematic student due to his instability, hyperactivity, impatience, disrespect for demands, negativity etc. There was a need for firm guidance, consistency, and precise boundaries for his behaviour. Over time at school the boy's behaviour improved, there was some adjustment to the school environment, His independence is developing slowly. He continues to display very specific behaviours, with movement and audio stereotypes, a fondness for spinning, involuntary movements, and a fondness for shiny, luminous objects. He is affectionate and uses the guidance of the teacher's hand to express his needs. There is minimal eye contact. He clings to repetition of speech and communication of experiences. He is used to having a structure in the classroom. Despite all the difficulties, he is a kind, sensitive, observant and lively boy. Reports from 2018 indicated that he was unfocused, with displays of hyperactivity, restlessness and mood swings.

Goal of working in Snoezelen

The aim is to focus on problematic behaviour in the classroom, the development of communication in sign language, more active use of the left hand and motor development, relaxation and rest between lessons.

The course of visits in Snoezelen

The boy goes to Snoezelen regularly once a week for 40 minutes, as stated in the individual education plan, he is accompanied by a teaching assistant at individual sessions.

The boy knows that he is going to stay in the Snoezelen, he has a picture timetable. He is looking forward to going to Snoezelen. Introductory activities involve gradual switching on of some appliances. Care must be taken that the boy does not reach into the sockets of the power lines. Behavioral habits are developed. Afterwards, the assistant teacher and the Snoezelen teacher are greeted and the boy expresses his wishes about what he would like to do. He is interested in a hanging swing that he swings and hides in. He spontaneously communicates short information to the teaching assistant (mostly repeating experiences from the previous lesson). He enjoys spinning in the swing. This is followed by tactile relaxation using a magma ball. It is explained and shown that the magma ball also reacts to sound, the boy tries it. He gets angry when he fails, and then refuses to carry on with this activity. The teaching assistant brings pictures of the faces of four people, the boy is interested in them. He notices that the mouth and eyes are missing. They move to a place with a table and sit opposite each other. The boy chooses a crayon colour and draws the mouth and face, while explaining (in response to the teaching assistant's questions) why the girl is frowning etc. He expressed negative emotions with all four pictures. When prompted, he tries to imitate the emotions of the people in the picture. At the end of the session, the boy goes to the cylinder of water and observes the fish in it, regulates the speed of the bubbles in the water and influences the flow of the water. When prompted by a short dialogue, the visit draws to an end. The boy and the teaching assistant leave.

Conclusion

The visits allow the boy to get into a different environment than the classroom learning environment at school. The stimulation appears to be beneficial. At the beginning of the regular visits, the boy was very unfocused and restless. He often drifted away from activities. Over time he has become accustomed to Snoezelen, and is more respectful of some rules (especially safety precautions). He requires a familiar introduction and conclusion to the visits. The boy is learning to respect others and to respect the principles of good behaviour in a natural way. He enjoys the stays very much. He looks forward to Snoezelen. He prefers activities involving action. He likes to play in the hanging swing, he is fascinated by lights and he loves glittering things. During conversations, he often talks about his family and class teacher or events that happened in the class on that day. If required, he has enough space to calm down and relax. Depending on his current mood, activities are chosen to be more active or passive, always with an individual approach and respect for the boy's psychological state.

A girl with an uncomplicated attention deficit disorder

This is a girl aged five suffering from an uncomplicated attention deficit disorder. She attends a mainstream kindergarten.

Family history

The girl is in foster care, the biological mother is not interested in the girl and the biological father is in prison. The foster family lives in a detached house with a garden in a small town. The foster parents have two children of their own, boys aged 12 and 17. A younger sibling of the girl, a one-year-old boy, was added to the foster family six months ago and was placed in an infant institution. The girl has been in the care of the foster family for three years. The foster mother stays at home with the children and the father works in a private company. The foster family gives a harmonious impression. The decision to become foster parents was also the wish of the older children, to have another sibling.

Personal history

The girl was born as the third child by caesarean section in the 38th week of pregnancy, and the newborn baby was diagnosed with a withdrawal syndrome due to the mother's narcotic substance abuse. Morphine administration was discontinued after three months. She suffered from frequent rhinorrhoea and was gaining little weight. At nine months she was examined by a neurologist for an observed upward contraction of the left eye. She stood up at eleven months and started walking on her own at sixteen months. She was hospitalized twice – for cough, fibrillation, and later also with adenoviral gastroenterocolitis. She has been in the care of foster parents from the age of two, her speech development is delayed as well as her general psychomotor development. She makes repetitive movements in her bed at bedtime. There has been gradual improvement in sleep and adjustment to the new environment. The girl started kindergarten before four years of age.

School history

When she started kindergarten, the girl had problems with respecting the rules, her attention was very short-term, she often fell asleep during activities, she had problems with establishing relationships with other children in the kindergarten, her fine and gross motor development was slightly delayed. On the reclining chair she would shout, make sounds and movements stereotypical for someone with her disabilities, disturbing other children. She was rather solitary at the beginning, preferring to work alone, her only friend was a boy of the same age. The parents suggested an examination at the pedagogical and psychological counselling centre, where the girl was subsequently diagnosed with an attention deficit disorder, and on the basis of the recommendation of the pedagogical and psychological counselling centre, the girl was granted third-level support measures and recommended an individual education plan and the support of a teaching assistant. The teachers also have regular consultations with the foster parents, the family shows great interest in the child and tries to resolve all situations immediately. The girl seemed more and more balanced,

and the teachers noticed a slight deterioration in her behaviour after her foster family had taken her younger brother into care. Currently, the girl is working in the classroom on the basis of an individual education plan, which also includes regular visits to the Snoezelen environment.

Goal of working in Snoezelen

Helping to relate to other children in an appropriate way, understanding the feelings of others, improving fine and gross motor skills, extending attention span, self-awareness and instilling a sense of security in kindergarten.

Course of stay in Snoezelen

The initial lesson in the Snoezelen environment was attended by the girl together with two girls of the same age about a month after starting kindergarten. The girls saw the room, all the equipment, and used the soft furniture. The girl was most pleased with the yellow rocking duck. With the help of a data projector, the girls were shown a short fairy tale called "Bobble Hat Boy (Bambulín) and Ladybird in the kindergarten". There were some doubts whether the girl should visit Snoezelen, because she had not yet been examined by a paediatric neurologist and there was no clear diagnosis. It is important to plan visits to Snoezelen with the children's health in mind, especially if epilepsy is suspected. Several other visits took place with a similar scenario. The first structured lesson that the girl participated in was a lesson called "The Sea". When the children were relaxing listening to the sound of the sea at the beginning of the lesson, she would remain involved for a short time only. She participated in all the activities of this lesson and managed to stay in Snoezelen for 25 minutes, but she had to be more motivated and encouraged than the other children, even though the lesson had been planned to be shortened by fifteen minutes. The aim was mainly to let her cooperate with the other children and to develop communication skills. The children collected and counted shells, sorted them according to structure and size. At the beginning of the lesson she was rather uncertain, but gradually she would start talking. She was comfortable with individual work and did not cooperate much with the other children. The lesson was divided into three parts, the next two parts were devoted to motor development (making colourful octopuses out of plasticine, building a fake lake, jumping over the waves, walking on the sand etc.). In the following sessions, her communication and cooperation skills were improved. The classes in Snoezelen took place initially approximately once a fortnight, later it became once a week. Gradually the time was extended to 45 minutes and also at least occasionally another class of 25–30 minutes of mostly relaxation (in leisure time) was included. In the relaxation hours, short breathing exercises are done, children relax with an audio or video story, listening to music and playing in the sand. The girl was cautious in making contact, she could not resist the offer of fruit and wait for her turn, she did not make eye contact, but she liked the technique, the fibre lights, the water cylinder, however, she could not keep her attention during the reading of the story, she would run from the water column to the lake, at times she seemed lost in her own world (dreamy). Based on long-term observation, improvements can be seen in the areas of communication, vocabulary and cooperation with the therapist/educator.

Conclusion

Thanks to regular visits to the Snoezelen environment, the girl feels safe there, she is not shy, she communicates. She is able to express her emotions, the teacher also sees an improvement in her behaviour and respect for the class rules. She appreciates the girl's ability to apologise. During a year the girl has improved a lot, not only thanks to the work in Snoezelen, but also thanks to the patient work of the teachers and especially the foster parents. She can better establish relationships with other children, and her stereotypical movements on the recliner have also improved greatly. Eye contact and overall communication with teachers and children also. The girl loves going to the kindergarten and she literally craves her stay in Snoezelen. It would be good to continue to use the Snoezelen environment once or twice a week for 40 minutes and to include exercises suitable for children with the attention deficit disorder.

An adult woman with Down syndrome

This is a 46-year-old woman with Down syndrome. She lives in a care home for people with disabilities.

Personal history

A woman with Down syndrome whose mental level is in the moderate intellectual disability range. Among the associated medical conditions, she suffers from hypertension, eye defect and also has orthopaedic problems complicated by her being overweight. She was born as the third child in her family. She was placed in the care home at the age of three.

Family history

Of the woman's parents only her mother is alive. The mother lives in the place where the care home for people with disabilities is located and is in daily contact with her daughter on the phone or in person. The woman also often goes on trips with her mother. After her father had passed away, the mother found a new life partner. The woman has two sisters. She has a very good relationship with all members of her immediate and extended family. They maintain written, telephone and personal contact with each other. The family has established certain shared practices and the woman suffering from Down syndrome takes it to heart if there are any changes.

Education, communication, involvement in life

The woman has only ever experienced kindergarten education. She did not continue her education in the home for people with disabilities, as she was exempt from compulsory schooling at that time. She cannot even master the basics of trivia. She can only read

symbols, work with pictograms and name pictures. She can tell a simple story based on the pictures. She does not understand the value of money, so she does not even have her own pocket money. The things she needs are usually bought by her mother. The woman is communicative, and her speech is clear. She can express her opinion in a conversation. If she does not know what to answer, she would not say, but she would digress from the topic. She is locally oriented, meaning that she moves around the home completely independently. She goes out of the premises either accompanied by an experienced user or by a member of staff/assistant. This is not due to poor orientation in the surroundings, but for her safety, as her attention is distracted and this could be dangerous, for example when crossing the road. She is time oriented in the sense that she knows what time of year it is, the day of the week or part of the day. She does not understand the clock. She is completely self-sufficient in self-care activities, hygiene and eating. As part of the activities offered to users of the home for people with disabilities, she participates in a singing and drama group. She performed in the theatre performance 'Snow White'.

She goes on trips, previously she also participated in residential trips, but nowadays she only takes part in day trips due to her deteriorating health. She regularly attends occupational therapy where she has a permanent job. For example, she is involved in cutting fabric into bits, which are then used as pillow stuffing. Until February 2016, the woman lived directly in the facility in a double room. Since February, she and her then roommate and friend have been moved to a newly opened sheltered housing apartment. A sheltered housing assistant provides support to the occupiers living in these apartments. In the new apartment, the woman likes to relax, but also enjoys doing small household chores such as cleaning and preparing meals together with the assistant and her roommate. In the future she wishes to live with her mother. They are talking about moving into a renovated house together and going for walks or trips together. The woman's legal capacity has been reduced and her mother has been appointed her guardian.

Course of stay in Snoezelen

The woman enjoys going to the Snoezelen room and has been participating in the activities there since the facility opened. She is one of the users who chooses to stay in the Snoezelen room even during group activities. However, she sometimes has individual sessions. She always looks forward to the therapy and arrives in a good mood. She likes the red and yellow colours. She is very fond of the hammock, enjoys singing, playing rhythmic musical instruments, touching fibre optics and the plasma ball. In the initial sessions, the woman tried out how she felt in different zones in the room to choose the most suitable, comfortable and safe place for herself. She lets the visual stimuli affect her and uses the room for her relaxation. The first time she was in the multisensory environment, she was most interested in the so-called starry sky. In most cases, she actively participates in all the activities offered. During the pair activities she was always the more active one. Sometimes she tried to "boss" her friend, to be the one who determines who sits where, or which instrument her friend should play etc. However, the therapist always sensitively difused the situation and the activities were carried out in a friendly atmosphere. When leaving the Snoezelen, she always expressed regret that the activities were over and at the same time assured the therapist that she was looking forward to the next one. During her stays

in Snoezelen she is mostly active and enthusiastically participates in the activities prepared, only occasionally she wishes to just talk and relax in individual sessions.

Conclusion

Snoezelen has a positive effect on the woman, helping her to overcome timidity or to cope with stressful situations that are difficult to handle. Relaxation is also good for her emotional stability. The woman has been found to have improved motor function. And the greatest progress is seen in the area of communication, the woman communicates better with other users of the home and also with the staff.

A boy with autism spectrum disorder

This is a boy aged nine with childhood autism. He attends a special elementary school.

Personal history

The boy was diagnosed with childhood autism with moderate symptoms combined with severe intellectual disability. The boy's delivery was induced due to the mother's diagnosed eclampsia. The boy had to be placed in an incubator for six days. Standing at 11 months, first steps around 14 months, independent walking from 18 months. At nine years of age, he is not using words yet. The boy was incontinent until the age of 3 and a half.

Family history

The boy grew up in a complete family. Both mother and father are college educated. Both parents are healthy, two younger siblings are also healthy. The boy's extended family has been diagnosed with atypical autism.

School history

During the preschool period, the boy attended a private woodland kindergarten one day a week and had a teaching assistant available to him at all times. He had a one-year deferment of compulsory schooling. Currently, the boy is a pupil in the first year of a special elementary school and is being educated according to an individual education plan. The boy looks forward to school and enjoys it. For safety reasons, he requires constant supervision as he tends to leave the classroom at will. He is comfortable moving around the classroom or moving to another room. He prefers adults for social contact. He is not very involved with his classmates, plays alone during breaks or watches others while playing. He does not respond to normal children's games. If he wishes to make contact with another person, he pushes them strongly with his chin. The boy does not

express himself verbally, rather he makes incoherent noises, and occasionally he manages to express his disapproval with a clear “no”. He understands simple and repetitive instructions. The boy’s perception is highly selective. Some sensory stimuli intrigue him and it is difficult to separate him from them. He persists in following them for a long time. He likes to observe his own image in the mirror for a long time, playing with his tongue and showing his teeth. The boy has developed simple social habits. He puts toys in their place with support and demonstration. He prepares his plate, snack box and drink. He completes tasks with some latency, with repeated prompting and under direct guidance. Sometimes he is cooperative, sometimes not. Cooperation in goal-directed activities is not very common. In the case of non-targeted tasks, the boy spontaneously leaves his seat and moves around the classroom. It is difficult to motivate the boy to do any targeted tasks. Attention is very short-lived. He likes to play with different puzzle games. He safely recognizes and matches colors. He enjoys pouring water or sand from one container to another and working with different building blocks. The boy does not want to complete tasks with a pencil, preferring to use a coloured ballpoint pen to work. He scribbles spontaneously. The boy’s gross motor skills are normal, but when he tries to catch a ball, he needs help. He does not throw balls purposefully, but rather throws them away. He likes jumping on the trampoline.

Course of stay in Snoezelen

In the initial hour after arriving at Snoezelen, the boy briefly inspected the prepared room and was immediately intrigued by the prepared menu. Although he was used to starting activities with the bell from the morning practice in class, at this moment he was not interested in the bell at all. The first activity he chose was to delve his hands into the natural world. He would put both, his hands, and his bare feet into the box with some natural materials. He stayed with this activity for quite a long time and seemed very happy. However, he did not want to sort the natural materials and put them together into shapes. Despite being shown what to do with the natural materials, he put them in the box with the others. After this activity, he sat on the floor for a while, leaning against the bag and looking around the Snoezelen area. At that moment, the teacher started throwing leaves, both natural and artificial, at him. The boy liked it very much and started laughing and looking at the leaves. After a while, he also started dropping them from high up on the ground. The teacher showed him that he could crush the dry leaves in his hands, but he was not supposed to do that at all. Another activity that kept him interested for a very long time was manipulating a rain stick. For this activity he got comfortable and leaned against the positioning bag. He manipulated the stick very quickly, so the sound the stick made was very intense and came out fast. Occasionally he would take a short break and look at the water column. The other activities hardly interested him at all. He watched the teacher manipulate the pinwheel and kite, but he didn’t want to try the activity himself. Although the boy is used to having an apple for his snack, he did not want to taste or smell it during the Snoezelen activities. He turned his face away. He did not want to create the product at the end of the activity, but watched as the teacher created it. The final ritual to announce the end of the activity was already mastered and the boy rang the bell himself.

Conclusion

The boy likes going to Snoezelen. He always looks forward to it. He mostly participates in activities that develop visual, auditory and tactile perception. The aids and activities that were prepared for his development were mostly interesting for him and thanks to them he was better able to keep his attention until the end of the activity. These included, for example, putting his hands in natural materials, looking at falling leaves, manipulating a rain stick and an ocean drum, watching a water column, observing an aquarium lamp, working with clay, etc. He did not want to engage in activities that promote olfactory and gustatory perception. The exception was the lesson on chocolate. The boy likes chocolate, so he had no problem tasting it. His tasting of honey was rather accidental, or he might have been used to it from home. The development of spatial and directional orientation depended on the prepared activities. The boy is quite skilled and enjoys various manipulative activities, which was also demonstrated in Snoezelen. Activities that interested him were, for example, making a snowman with polystyrene balls or operating a rain stick and an ocean drum. Sorting or matching pictures or different objects did not meet with a very good response.

Boy with multiple disabilities

This is a boy aged 14 years, with multiple disabilities. He attends a special elementary school.

Personal history

The boy was diagnosed with cerebral palsy – spastic quadriparesis with more severe lower limb involvement, severe to profound intellectual disability, autistic features and epilepsy. The boy is from a second pregnancy which was at risk. The delivery was spontaneous, premature at 33 weeks of gestation. The boy was in an incubator for three weeks, he had neonatal jaundice. The boy was passive and apathetic after birth, with significant developmental delay, especially in the motor field, and severe spasticity of the whole body due to the diagnosis of cerebral palsy.

Family history

The father and mother have no stresses or illnesses, both are healthy. The older brother has been diagnosed with attention deficit hyperactivity disorder.

Socialization

The boy is kind, open, and has a clear need for social contact. He distinguishes between familiar and unfamiliar people. He has his favourites, his parents, some teachers and tutors. He listens to and respects these people and wants to be close to them all the time. The

problem is when an unfamiliar person comes into the group, it takes him longer to adapt to them and negative behavioural symptoms occur. There are also movement stereotypes, such as head nodding, knocking on a desk or an object.

Self-service

The boy must always be accompanied by another adult. The boy is immobile, hygiene habits are not established. He is incontinent, does not point out the need, nor is there a significant reaction after the need for a diaper. He enjoys playing with a stream of water during hygiene and hand washing. He is fed, there are problems with swallowing and biting, so he is given mainly mushy food. He drinks with the help of a second person who holds the cup and mouthpiece.

Communication

Speech development corresponds to the diagnosed level of intellectual disability, manifested by guttural sounds and loud laughter.

Sensory perception

In the field of visual perception, he responds to contrasting and coloured objects. He has problems with visual fixation and focusing attention. He responds well to light stimuli. Auditory perception corresponds to the degree of disability, he turns to sound, loves music, especially distinctive rhythms, and distinguishes familiar and favourite melodies. He does not like high tones, they are unpleasant to him. He reacts to them by wailing, screaming and general nervousness. In the area of somatic perception there is a noticeably lowered pain threshold. This is manifested by frequent self-harm, especially biting, which is probably a form of stimulation for him. In terms of gustatory stimuli, he prefers sweet tastes, for example he likes flavoured yoghurt.

Gross and fine motor skills

Mobility is severely limited due to the diagnosis (cerebral palsy). He is able to roll from his back to his stomach with assistance, but the reverse, from his stomach to his back, is very difficult. Fine motor skills are limited due to spasms of the right limb. There is an attempt to grasp, but it is rather random. He reaches out to objects that are attractive to him, usually sound toys. A metallic clinking ball, which also gives off a gentle vibration, gives him great pleasure. When an object is placed in the boy's palm, he tries to manipulate it and puts it in his mouth.

Course of stay in Snoezelen

The boy felt insecure after arriving in Snoezelen. But over time he found a liking for it and is now looking forward to his stay in the multi-sensory room. In the Snoezelen, the boy receives visual stimulation, tactile stimulation, stimulation for the development of somatic perception, and his stay in the Snoezelen is used for relaxation. The stay in the Snoezelen is part of his education and is planned for at least one hour per week according to the individual education plan. Visual stimulation was carried out using appropriately illuminated objects with a UV lamp and it was evident that the boy was interested in the objects and tried to

get a pincer-like grip. He also responded well to the luminous hollow fibers, which he was almost consternated by. He also tried to grasp them, which in this case was successful as the fibres remained between his fingers and he could play with them. Stimulation by projecting lights moving around the room was also effective. The pupil tried to catch them, reaching out for them, and in this way visual fixation was practised. The development of somatic perception was also carried out using a waterbed. The boy was placed on the waterbed, which began to rock and sway, thereby changing the boy's position. The boy responded positively, allowing himself to be manipulated, which was not possible in a classroom setting. A full body massage was then started. This progressed from the hands towards the chest, then both lower limbs were massaged. However, the back was not neglected, the boy was rolled onto his stomach and the back was then massaged. The boy was relaxed the whole time and his breathing was calmed. Other senses, taste and smell were developed during the activities in the Snoezelen. The development of the sense of taste was carried out by the teacher with the boy by stimulating the movement of the tongue, repeatedly practicing its extension and retraction with the motivation of licking a lollipop. Elements of orofacial stimulation and facial massage were also used with the boy. The boy was negative to touching the facial area, but later relaxed and agreed to touch this area as well. At the end of the session, relaxation was planned, either on the waterbed accompanied by music and vibrations emanating from the waterbed or just by a suitably lit room.

Conclusion

The stay in the multisensory room is of particular importance for the boy, especially in terms of the development of somatic perception and tactile stimulation and for the further development of fine motor skills. During massage, stroking and balling, the boy becomes aware of the different parts of his body. When spastic upper limbs are released, it is also possible to practise gripping, which would be very difficult in a classroom. It is important for planning further activities that a relationship has been established between the teacher and the pupil that accepts her manipulation of his body, something he does not like in a classroom setting.

A woman with a psychiatric diagnosis

This last case study was provided thanks to the cooperation with Anima Viva, z.s. in Opava.

The woman is 61 years old, divorced and lives in the same household with her adult daughter, and has two other adult children from her former marriage. Previously, the client liked reading, baking/sugar making, going outdoors, but with the stagnation of her health and the problems associated with it, she stopped enjoying life, started to isolate herself in the home environment and is currently unable to experience positive emotions, although she has a very kind, friendly and affectionate nature, she is unable to stimulate herself to any activity or activity that would make her happy, she performs everything necessary with a very passive attitude, which is not typical for the client.

Personal history

The client has been struggling with cancer treatment for several years, she has undergone several surgeries, followed by chemotherapy, which she underwent repeatedly due to the return of cancer cells. She has a history of psychiatric diagnosis, specifically a range of mood and anxiety disorders; the client's depression and anxiety have returned precisely because of her stagnant cancer treatment. Due to the above-mentioned health problems, the client has been diagnosed with disability of the 3rd degree, she was previously an employee in a protected workplace within the ANIMA VIVA z.s. organization, however, she had to terminate her employment due to long-term health problems. It was because of the client's past connection to the Social Rehabilitation (SR) service that she was offered attendance at SR, which could provide her with more support in dealing with her long-term adverse social situation in an environment familiar to her, which could have a motivating effect.

The effects of a stay in Snoezelen

Based on the client's needs, which were found to be primarily in the areas of regaining intrinsic motivation and resources for dealing with their adverse social situation, in support for more active leisure time, which would help the client to change her negative mindset caused by stagnant oncological treatment and also the need to reduce social isolation, which the client is threatened with due to minimal social contacts. Attendance at the SR service was set at twice a week by mutual agreement for music play and reading to continue rehearsals, where the above needs of the client will be regularly reinforced. Both rehearsals will take place exclusively in the Snoezelen room, which will be a supportive element in meeting the client's stated goal of their individual plan, which they have identified as "I want to learn to change my negative thoughts into positive ones". After a very short period of time, the client's regular stay in the Snoezelen room has resulted in positive changes in their experience and thinking. They were able to relax much better in the multi-sensory room, compared to the regular day room, and found a favourite place that they used regularly. The client was open to using the available aids such as fibre optics, aromatherapy using a scent diffuser, a bubble roller which induced feelings of calm, and projection during relaxation,

which was a popular choice for them to use as a final relaxation in the room. The client always took an active approach to every activity or activity that the staff offered during their stay at Snoezelen. Changes in the client's experience were evident in their speech, where they were gradually able to talk more and more often and better about their needs and feelings, to communicate their opinions and thoughts, and they began to experience joyful emotions, which replaced the negative ones in the form of mainly crying that they had shown at the beginning of their attendance at SR. Client XY always visibly enjoys their regular stay in Snoezelen, they can describe and talk about the feelings that the room gives them and arouses in concrete terms, these are exclusively positive experiences and feelings. Thanks to the security that the Snoezelen room gives the client, their communication towards other clients has improved, to whom they can show support and understanding, which is motivating for both themselves and others. Also communication towards the staff has improved, leading to more effective identification of current needs and the ability to respond to them. The client has learned to use relaxation techniques in their home environment which they practice regularly at Snoezelen as part of the relaxation applied in SR exercises. Although XY's health condition has not improved, on the contrary, it has unfortunately worsened and she has started chemotherapy again, thanks to her regular attendance at the SR service and the improvement in her psychological state, she is coping with this unexpected situation without negative experiences, her view of the world has visibly changed for the better and she is determined to face further health complications. The overall improvement of the adverse social situation and the fulfilment of the objective of the individual plan is also evident in the fact that client XY has accepted an offer of re-employment in a sheltered workplace within ANIMA VIVA z.s, She has regained a certain daily routine and motivation to spend her free time actively, she has also regained her work habits, which she had gradually lost through isolation in the home environment and passive spending of her free time, the opportunity to do some work for which she is appreciated and praised is very motivating for her and has visibly changed her relationship with herself and her self-esteem. The impact of Snoezelen on achieving the client's individual plan goal is evident in all respects, client XY always looks forward to the room and visibly enjoys her stay there, her zest for life and strength to cope with her problems is evident in her expression and ability to experience positive and joyful emotions, which she had lost through her long-term and stagnant cancer treatment. The work with client XY within Snoezelen continues, although her psychological state has already improved, the goal of her individual plan has not been met from her point of view and the need for support from the SR service is still evident.

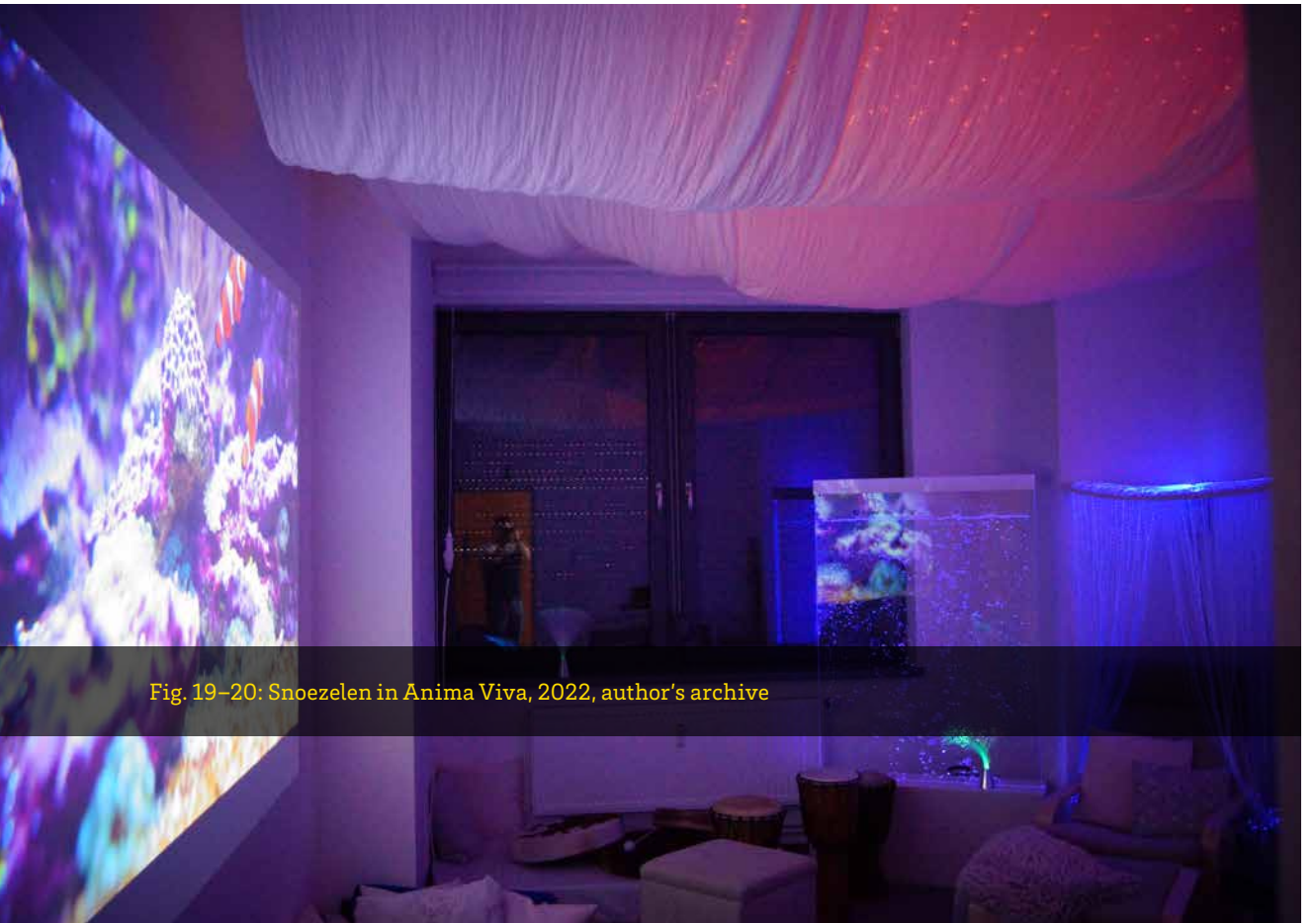


Fig. 19–20: Snoezelen in Anima Viva, 2022, author's archive

Fig. 21: Client in Public Policies Faculty Snoezelen, 2022, author's archive

1.4 CURRICULUM OF SNOEZELEN, SILESIAN UNIVERSITY, OPAVA

Due to its flexibility and functionality, the Snoezelen multisensory concept is used in the Czech Republic for various groups of people from birth to old age. Snoezelen is now used in the Ministries of Education, Health and Social Affairs. Its concept responds to changes and new approaches in supporting individuals not only with special needs.

The room was created at the Faculty of Public Policies in Opava in 2019, and is used for teaching students of the current accredited disciplines and subjects – Special Education, Nursing, Care for the Elderly, Social Pathology, and also for emerging subjects and disciplines which relate to the care and support of people with special needs, disabilities and social disadvantages. Using the Snoezelen room, we can provide specific theoretical and practical teaching to establish effective joint cooperation directly with institutions and schools interested in this concept.

At present, the Snoezelen in Opava is being used for these basic purposes: Practical teaching of specific subjects, training and workshops, scientific and research activities including goals of academics and students of the faculty. We have also offered the room for use by clients of Social Services who can come here accompanied.

The basic subjects that are taught here are 'Multisensory Concepts in Special Education' and 'The Use of Multisensory Environments in Work With the Elderly'.

The courses are similar in their theoretical aspects, since they both introduce multisensory methods and their use with a focus on the concept of Snoezelen. During the last few years, another course has been created for international students who come to the Faculty of Public Policy as part of the Erasmus+ programme. This course is presented here.

MULTISENSORY ENVIRONMENTS – SNOEZELEN

Target:

The main objective of the course is the acquisition of theoretical and practical knowledge about working with multisensory concepts, specifically with the Snoezelen method.

The course is composed of theoretically tuned exercises that outline the basic background, determinants and characteristics of the Snoezelen multisensory concept in both Czech and international conditions. Students practice in the Snoezelen demonstration room, where they learn about the use, efficacy, techniques and principles of work towards the target group of people.

Learning Outcomes:

By completing the course, the students will gain the following expertise:

- Can define general multisensory concepts
- Know the history and context of the use of multisensory work in special education and other related disciplines
- Have understanding of the epistemological foundations of the Snoezelen concept doctrine
- Know the possible benefits of using multisensory environments
- Can describe the basic levels of the Snoezelen Triangle

They will acquire the following professional skills:

- Can assess and analyse the use of a room for a particular person or group of people
- Can apply the knowledge of didactic principles, principles and conditions of using the multisensory room in a specifically developed methodology.

And they will be qualified and able to:

- Adapt the technology, tools and environment of the multi-sensory room to their own goals.
- Assess the use of the multi-sensory room environment according to the specific individual needs of the client.

Content:

Exercise topics:

- Definition of multisensory concepts and their application within the target group
- Characteristics of the multisensory concept in general, variability of multisensory concepts, goals and purposes.
- The concept of Snoezelen and its epistemological basis.
- Definition of the Snoezelen triangle, including a detailed description of the three planes.
- The environment of the multisensory room including technology, tools and all equipment.
- Principles, rules, and didactic principles of working in Snoezelen.
- Examples of methodical use of Snoezelen and practical exercises in the multisensory room.
- Multisensory room environments including technology, aids and other equipment with a focus on seniors.
- Activation and relaxation in Snoezelen.
- Cognitive development – methods related to the issues of senior dementia and Alzheimer's disease.
- Development of communication and socialization. Empathy and the importance of individual specific approaches to seniors.
- Applied examples of the use of Snoezelen and practical exercises in the multisensory room.

Student requirements:

- Written methodology with the involvement of a multisensory environment (Snoezelen)
- Attendance and active approach of the student to the course.

THE PREREQUISITE FOR THE SUCCESSFUL COMPLETION OF THIS COURSE IS THE SUBMISSION AND POSITIVE EVALUATION OF THE WRITTEN METHODOLOGY: 'PREPARATION FOR ACTIVE WORK IN SNOEZELEN'.


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Fig. 22–24: Students working in Snoezelen, 2022, author's archive

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2 SNOEZELEN IN POLAND

2.1 IMPLEMENTATION OF SNOEZELEN IN POLAND

2.1.1 SNOEZELEN IN POLAND – AN OUTLINE OF HISTORY AND THE CURRENT STATE

The idea of Snoezelen did not reach Poland until the early 1990s. The main reason for its delayed adoption was the political situation. From 1945, Poland was behind the "iron curtain" in the bloc of countries dominated by the USSR. This resulted in its being, if not completely cut off from the West and its achievements, significantly limited, at the very least, in its access to new ideas, including in the field of therapy. An additional obstacle was the deplorable economic condition of Poland, typical of a centrally controlled socialist economy. It was only in 1989 that a democratic revolution took place, not only in Poland, but also in other countries of the former Eastern Bloc. Poland returned to the path of democracy and free market economics, eventually becoming part of the EU.

The events of 1989 meant that many new concepts began to arrive in Poland, one of which was the Snoezelen method. In 1993, the author of this chapter translated the book "Snoezelen: another world" by Jan Hulegge and Ad Verheul into Polish ("Snoezelen, nieco inny świat", Krakow 1993; Gielas GmbH; now out of print). The therapeutic community in Poland has embraced the Snoezelen concept with enthusiasm. The Polish name for the method: "World Experience Room" has met with a positive response. The name refers to the title of the book, but also indicates that in this room we create a separate "world" for the participants – an environment that they can experience in a sensory (but not only sensory) way, to an extent that they are not able to achieve anywhere else. As A. Zawiślak notes: "In Poland, the name 'World Experience Room' was adopted, as coined by the translator of the first book by Hulsegge and Verheul (1993). Agnieszka Smrokowska-Reichmann decided to replace the original and foreign-sounding name with one more understandable to the Polish reader: 'Sala Doświadczenia Świata' (World Experience Room) (...) This concept accurately captures the essence of therapeutic work, has been well received and is favored to this day in Polish literature and the language of practitioners" (Zawiślak 2009: 33).

The first Snoezelen rooms were built in Poland in the early 1990s. Pioneering institutions were located not only in large cities, but also in smaller towns.

These were also institutions of various profiles, dealing with very diverse care-receivers, clients, and patients. Examples include:

- A care home for intellectually disabled children and youths in Grabie. (It is worth mentioning that the facility in Grabie was visited in 2003 by Jan Hulsegge, and the Center

for Personnel Training in Włocławek organized a lecture with his participation on this occasion. Since then, Jan Hulsegge has been in regular contact with therapists from this region of Poland).

- A care home in Janowice Wielkie.
- An occupational therapy workshop in Augustów.
- A care home, "Na Przedwiośniu", in Warszawa Międzylesie.
- The Provincial Care and Treatment Center and Drug Addiction Treatment Center in Gorzyce.

In the 1990s, in a journal addressed to therapists, social workers, and nursing and care staff, "Tematy" (later title: "Wspólne Tematy"), there was a column called "Club of Users of the World Experience Room" in which practitioners working in the first Snoezelen rooms in Poland shared their experiences and conclusions. Below are excerpts from three selected reports of this kind:

1. "After more than a year of sessions in the Snoezelen room, we can say that it is certainly an extremely interesting form of spontaneous stimulation of the development of mentally disabled children. A room which, while enabling a calm, pleasant sensory perception of the world, at the same time:

- stimulates the development of cognitive needs,
- stimulates cognitive activity (we observe curiosity, fascination, inquiries about where things come from and what can be done with them),
- stimulates the development of speech (some of the "silent" children vocalize in the Snoezelen Room, imitate sounds, try to communicate),
- directs the physical activity of the disabled to a goal (some children and adults with paresis make efforts – sometimes at great cost to themselves – to move towards a specific goal or pick up an object in their hands),
- stimulates emotional and social development (there is an urge to establish close emotional and physical contact with the therapist or other pupils, experience things together, play together, observe and compare what others do).

Being in the Snoezelen room also stimulates the ability to focus freely on auditory and visual material (we observe unexpectedly good results in children with autism and profound disabilities who previously did not focus their eyes on the object and were thought to be unable to do so, or were even considered blind).

The World Experience Room has a calming and relaxing effect on many who are psychomotor hyperactive with behavioral and mental disorders, it also reduces aggression ("I like it here!", "Because I'm resting here", "We are in a golden mood here" etc.). Symptoms of aggression in the Room are extremely rare (in 15 months, during which 126 people visited the Room, it happened three times). On the other hand, we observe that aggressive people (who usually pinch, scratch, throw objects, beat, or bite) "forget" their aggression in the Room, and are often sensitive and gentle in contact with other people and objects. Importantly in the case of care homes, staying in the Snoezelen room allows in-patients to break away from everyday activities, disconnect from the group of people with whom they spend most of the day, and leave their rooms, where they are almost permanently resident" (Konarska-Stanaszek, 1995: 52–58).

2. The Snoezelen room is visited by residents with varying degrees of handicap – from those with a slight handicap to residents with whom there is no communication.

We are very happy that the most handicapped inhabitants of our care home, thanks to the World Experience Room, have found a place for themselves where they certainly feel very good. They signal it to us with gestures expressing their willingness to visit the room – they smile, go to the door, grab the handle when they hear music coming from behind the door or see colleagues entering. They don't have to be coaxed into visiting Snoezelen. In the room, they choose a place where they feel good on a given day.

The World Experience Room has a very stimulating effect on many inhabitants. For example, one of the residents, who had previously destroyed his clothes and the equipment around him, did not care about hygiene, and did not want to shave stopped this behavior completely so that he could go to the ball pool in Snoezelen room as a reward (...) Many residents have their favorite places in the room. The ball pool is the most popular. The devices that the room is equipped with are often used in a way that differs from their original purpose. For example, one resident with spastic palsy uses balls from a pool to arrange flower patterns on the floor.

We believe that such a room is very useful in every facility. Thanks to it, we can provide most handicapped people with moments of joy, interest them in something, stimulate their senses, be close to them and let them get closer to us. Such behavior is unattainable in the day room" (Szkliński, 1995: 35).

3. "Due to the great interest and attractiveness of Snoezelen therapy, we decided to introduce part of the individual revalidation classes to the World Experience Room, remembering the function of the room and not forgetting the revalidation goals (...) Students of educational and therapeutic teams were divided into groups of three-four people, trying to keep the level of knowledge and skills as similar as possible. There was an individual revalidation plan for each child in the groups for a period of three months plus three months. One teacher stayed with the children in the World Experience Room and the other in the classroom of educational and therapeutic teams. (...) After three months, a preliminary analysis was made. It was established unequivocally that the level of knowledge and skills of the group of students whose revalidation classes were conducted in the World Experience Room was 45% higher than in the second group, which had classes in the classroom-studio. Therefore, it was decided to repeat the research twice more to eliminate any chance results. The results were similar each time (...).

Encouraged by the results of the research, we decided to check the impact of Snoezelen therapy on healthy adults and infants. We persuaded our students' parents to take part in a study. After 40 minutes in the hall, the parents said: "It's a revelation!". One informed us that their nagging headache had gone, another that he that he felt so relaxed he fell asleep (although he suffers from insomnia). A mother with a baby in her arms, sitting near the water column, told us that her little son watched the play of colors and fell asleep, which never happened during the day.

In publications we read about "pro" and "con" Snoezelen – voices of approval and criticism. Teachers and therapists of the Special School and Educational Center in Wodzisław Śląski are "pro" Snoezelen therapy. "Pro" because it is used intentionally, effectively and

for the child's benefit. It influences the reduction or elimination of aggression among our students" (Mięsok, Niemiec 1999: 37–39).

From the end of the nineties, Snoezelen rooms began to appear more and more frequently in Poland. The facilities were constantly looking for new sponsors who would enable the setting up of Snoezelen rooms. Sponsors were not only charitable institutions, but also, for example, banks (e.g., the Leopold Kronenberg Bank Foundation in 2001) or enterprises such as Polska Telefonia Cyfrowa (in 2003–2006) (Zawiślak 2009). Unfortunately, as has already been pointed out in this section, the increasing commercialization of the Snoezelen method –i.e., the discovery of it as a source of income by various companies – meant that the Snoezelen rooms were not always arranged in an appropriate manner. The main problem was the risk of over-stimulating the participants, but also the directive and task-oriented approach, thus contradicting the essence of the Snoezelen method.

Due to this state of affairs, the therapeutic community in Poland in the 2000s began to organize seminars and conferences to avoid mistakes through the exchange of experience. We should mention, for example, the activities of centers such as the Lower Silesian Association for Aid to Children and Youths with Cerebral Palsy, "Ostoja", in Wrocław, the Regional Methodological and Educational Center, "Metis", in Katowice or the Pomeranian Pedagogical Therapy Center in Koszalin. In the years 2012–2017, the Rosa Foundation and the Sensoria Foundation were very active in the field of Snoezelen. The activities of both Foundations included:

- the organization of nationwide conferences devoted to the Snoezelen method (2012, 2014, 2016, 2017),
- support for institutions arranging Snoezelen rooms,
- the running of their own World Experience Rooms, in which Snoezelen sessions could be used primarily by children with various diagnoses, but also healthy children and other age groups
- the publishing of the first popular science manual on Snoezelen (Agnieszka Smrokowska-Reichmann, "Snoezelen – Sala Doświadczania Świata. Kompendium opiekuna i terapeuty", Fundacja Rosa, Wrocław 2013).

In 2017, ISNA-MSE Polska started life as part of the International Snoezelen Association – Multi Sensory Environment (ISNA-MSE). ISNA-MSE Polska, within the legal order in force in Poland, has established itself as the "Polish Snoezelen Association (World Experiencing Room)". ISNA-MSE Polska conducts regular training in the field of Snoezelen theory and practice for all those interested in this method, with particular emphasis on therapeutic and pedagogical environments. Fidelity to the Snoezelen philosophy is very important for ISNA-MSE Polska, including, in particular, a non-directive and person-centered approach to the participant and the correct understanding and use of multisensory stimulation. ISNA-MSE Polska emphasizes a responsible approach to the application of the Snoezelen method, based on proven foundations.

Bringing together enthusiasts of the Snoezelen method (both theoreticians and practitioners), ISNA-MSE Polska also pioneers Snoezelen activities in new fields. One example is the gradual introduction of Snoezelen to pediatric oncology. The leading facility here is the Clinic of Oncology and Children's Hematology in Wrocław, "Przylądek Nadziei" ("Cape of Hope"). There is a World Experience Room in the Clinic, where sessions with young patients are conducted, among others, by the Vice-president of ISNA-MSE Polska, Paula Jaśkiewicz MA. Another pioneering activity of ISNA-MSE Polska is the popularization of the Snoezelen method within psychiatry. Hence the cooperation of the Snoezelen Science and Research Laboratory at the University of Physical Education in Krakow with institutions related to mental health protection (e.g., the care home for the Chronically Mentally Ill in Płaza or Psychiatric Hospital in Rybnik).

Currently, ISNA-MSE training courses are held under the scientific patronage of the University of Physical Education in Kraków. The president of ISNA-MSE Polska, who is the author of this chapter, also works as an assistant professor at the Department of Occupational Sensory Therapy at the Institute of Applied Sciences at the University of Physical Education in Krakow and is the head of the Science and Research Laboratory "Snoezelen – World Experience Room". This gives an additional guarantee of a reliable, factually and didactically correct, and scientifically based popularization of the Snoezelen method in Poland. ISNA-MSE Polska also supports institutions and people who are interested in the Snoezelen method, advising on how to properly design and arrange Snoezelen rooms, and how to select and use equipment and devices. Finally, ISNA-MSE Polska also provides a platform for the exchange of experiences for all who see Snoezelen as a valuable method.

The first interest of the Polish academic community in the Snoezelen method dates back to the 2000's. In 2009, the Kazimierz Wielki University in Bydgoszcz published the monograph "Snoezelen (Sala Doświadczenia Świata): Genesis and Development" by Professor Aleksandra Zawiślak. The University of Wrocław has assumed the scientific patronage of a nationwide conference devoted to Snoezelen (2016). A real milestone on the way to the Snoezelen academization was combining this process with the academization of occupational therapy in Poland and the introduction of the subject of Snoezelen to the syllabus of studies in the field of occupational therapy at the University of Physical Education in Krakow. You can read more about this on page XX.

In Poland, one can now observe the growing popularity of the Snoezelen method at universities, where it appears, for example, in the syllabus within the topic: "Special methods". The first doctoral dissertations in the field of Snoezelen were defended at the University of Physical Education in Krakow, followed by other universities such as the University of Lower Silesia and the Kazimierz Wielki University in Bydgoszcz, where doctoral dissertations are being prepared as this chapter is being written.

The situation of Snoezelen in Poland today is:

- Snoezelen as an academic subject in the field of Occupational Therapy at the University of Physical Education in Krakow,
- Snoezelen at other universities,

- the conducting of research and scientific projects in Snoezelen, including international cooperation,
- regular qualification training conducted several times a year by ISNA-MSE Polska under the scientific patronage of the University of Physical Education in Krakow,
- the creation of new Snoezelen rooms throughout the country in various sites,
- the modernization of already existing Snoezelen rooms,
- the activity of ISNA-MSE Polska, i.e., the Polish Snoezelen Association (World Experience Room) in the field of integration of the therapeutic and pedagogical environment around the idea and practice of Snoezelen.

Currently, in Poland, there are about 1,000 Snoezelen rooms in all types of therapeutic, care, pedagogical, and treatment facilities. These are specifically: special schools and kindergartens and schools with integration departments, care and treatment facilities, nursing homes and day care facilities for people with intellectual and physical disabilities, for the mentally ill, and for seniors and seniors with dementia. Snoezelen rooms are also starting to appear in less typical institutions such as orphanages, foster care facilities, and hospitals.

It should be noted that not all Snoezelen rooms operating in Poland fully meet the requirements of proper arrangement and proper conduct of sessions. ISNA-MSE Polska is trying to change this situation by introducing certification of Snoezelen rooms. A certificate confirming compliance with the assumptions of the Snoezelen method is given to Snoezelen rooms with appropriate equipment, where sessions are conducted by individuals trained in the method by ISNA-MSE Polska or by graduates of academic subjects in the field of Snoezelen.

Fig. 25: White Snoezelen at Pracownia Sensoryczna in Świeradów Zdrój (Sensory Workshop)

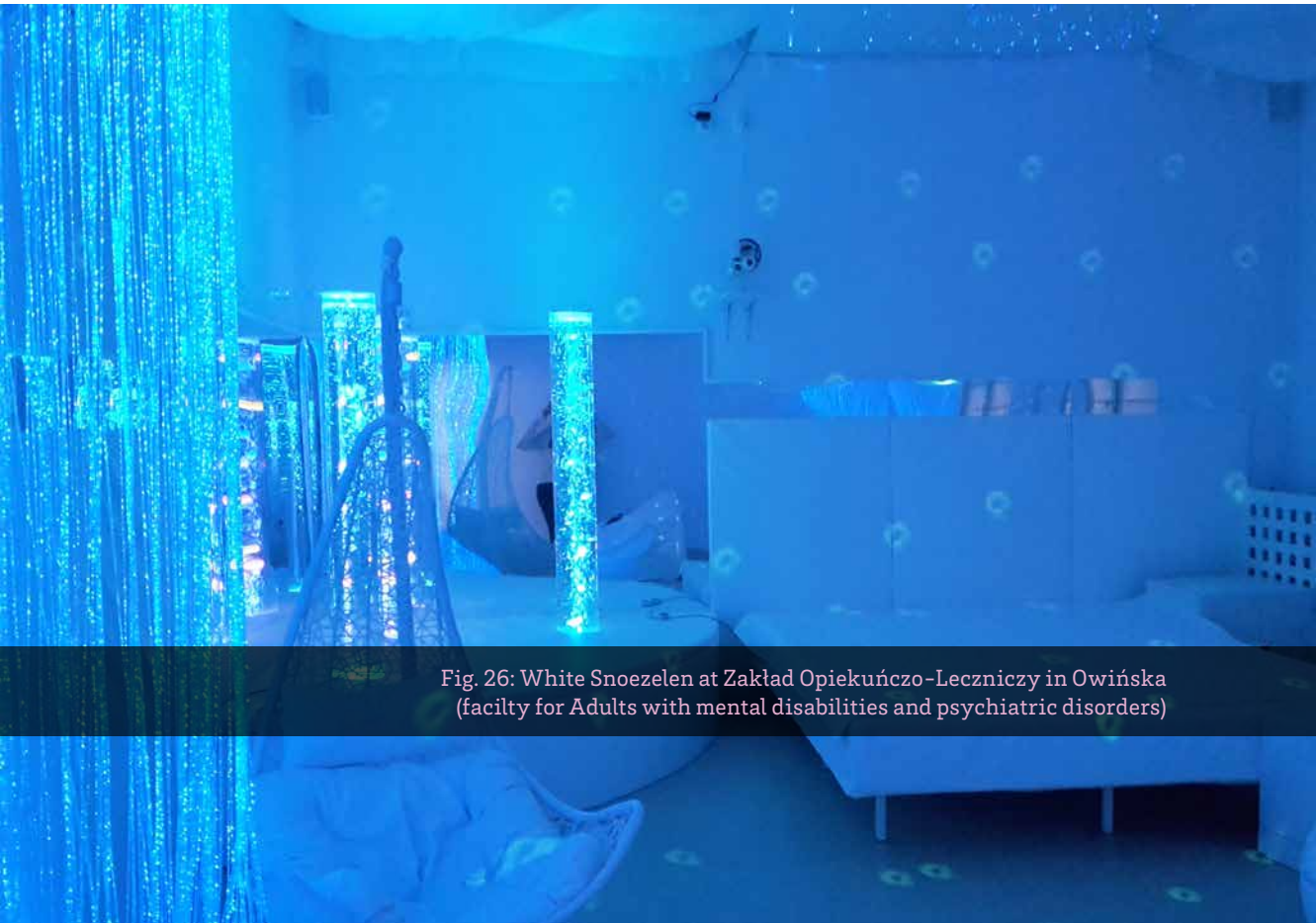


Fig. 26: White Snoezelen at Zakład Opiekuńczo-Leczniczy in Owińska
(facilty for Adults with mental disabilities and psychiatric disorders)

Fig. 27: White Snoezelen at Dzienny Dom Pomocy in Oświęcim – thematic session

Fig. 28: White Snoezelen at Przedszkole z Oddziałami Integracyjnymi in Raszyn (integration kindergarten, for children with and without disabilities)

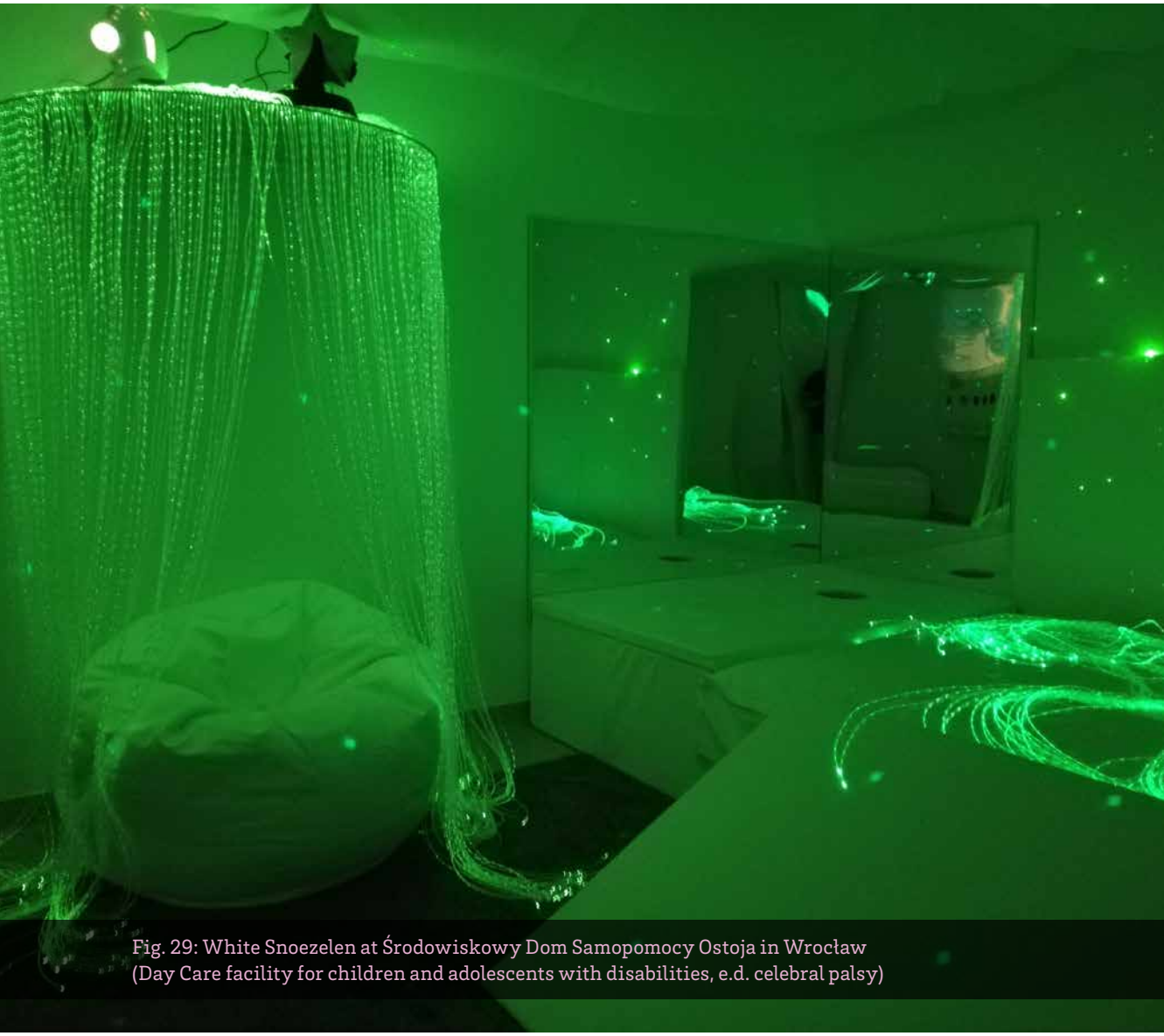


Fig. 29: White Snoezelen at Środowiskowy Dom Samopomocy Ostoja in Wrocław
(Day Care facility for children and adolescents with disabilities, e.d. celebral palsy)

2.1.2 PRINCIPLES OF SNOEZELEN

Huge Snoezelen rooms with fantastic designs and equipment are all very nice. But if there is a client sitting there with a therapist who does not understand Snoezelen at all, it is ultimately useless. It is only nice. (...) A standard Snoezelen room does not exist. Likewise, there is no standard procedure or treatment that guarantees success.

https://worldwidesnoezelen.nl/en/columns/item/239-is-snoezelen-a-philosophy-june-2004

The above observations of Ilse Achterberg, one of the most recognizable Snoezelen promoters and practitioners, highlight the fundamental difficulty associated with the use of Snoezelen-MSE: namely, the indeterminacy and "softness" of the sessions taking place in the Snoezelen room. As the author quoted above rightly points out, it is indeed difficult to speak of a standard procedure in Snoezelen. It is also worth quoting another opinion from the literature, according to which "Snoezelen is a therapy whose theoretical premises are still being shaped" and in which, so far, "no unambiguous rules of rehabilitation work have been formulated, nor have they been scientifically verified" (Zawiślak 2009: 23, 24).

However, it would be wrong to assume that Snoezelen-MSE is completely devoid of a theoretical and organizing framework for the sessions taking place in the Snoezelen room. Indeed, the fact that Snoezelen (after its purely intuitive and completely informal beginnings in a single institution for those with disabilities) has spread all over the world and is now used in the work of specialists from various helping professions would be almost incomprehensible in the absence of any formal or theoretical assumptions. We owe the formulation of these assumptions to Ad Verheul and Jan Hulsegge. They were the first to notice that the sensory stimulation used until now in Snoezelen required some sort of order. Admittedly, Hulsegge and Verheul use the term "favoured factors" rather than "rules" or "directives".

However, these factors (which we can also call Snoezelen aspects) describe exactly what happens/what should happen during a properly run Snoezelen session between client and therapist in a properly arranged space filled with appropriate sensory stimuli for the right length of time. Regardless of terminological details, it is worth emphasizing that, according to Hulsegge and Verheul, it is compliance with these "favoured factors" that guarantees the "optimum use of Snoezelen for the sake of those with learning disabilities and other target groups" (Hulsegge, Verheul, 2005: 20). The principles are as follows:

1. The Right Atmosphere,
2. The Opportunity for Choice,
3. The Opportunity to Set the Pace
4. The Right Length of Time
5. Repetition
6. A Selected Choice of Stimuli

7. The Proper Fundamental Attitude
8. The Right Supervision.

Below, the author of the chapter presents how each of these principles should be understood. She relies primarily on the publications and lectures of Ad Verheul, but also on her own publications and experience as a long-time educator and practitioner of Snoezelen (see also Smrokowska-Reichmann 2013; Smrokowska-Reichmann 2018).

1. THE RIGHT ATMOSPHERE

When we talk about the right atmosphere, we obviously understand it symbolically. The space in which a person lives always affects their psyche, evoking emotional reactions (positive, neutral, indifferent). We like to be in some rooms since we feel good in them, and we avoid others because they seem to lack something even if they appear comfortable. We can sense when a room is warm, friendly, and quiet and when it is cold, unpleasant, and gloomy. A properly arranged and equipped Snoezelen room should give the impression of a harmonious, cosy, safe interior, incomparable with the outside world. The Snoezelen atmosphere is well reflected in the words of one of the author's students who, upon entering the Snoezelen room for the first time, exclaimed: "It's like Narnia in here!". The principle of the right atmosphere requires us to create a space in which no stimulus dominates or interferes. Entering the Snoezelen room, one should receive the impression that there is neither too much nor too little there. After that first impression, the Snoezelen room should encourage one to explore this space and learn about its features. The principle of the right atmosphere also means that the Snoezelen room should have a calming effect and should allow one to rest from the flood of stimuli that is characteristic of the world outside Snoezelen. It is especially important for people with various types of deficit, such as intellectual disability, autism spectrum disorders, or sensory integration disorders. These people often feel overloaded with stimuli in everyday life, including those that non-disabled people do not perceive to be burdensome. The proper atmosphere in the Snoezelen room is achieved through the appropriate placement of appropriate equipment and devices, but also through the behaviour of the therapist during the session. The principle of the Right Atmosphere corresponds, in particular, with the principles of a Selected Choice of Stimuli, the Proper Fundamental Attitude, and the Right Supervision.

2. THE OPPORTUNITY FOR CHOICE

With regard to this principle (and the Opportunity to Set the Pace principle), it is worth recalling that the first addressees of the Snoezelen method were those with intellectual disabilities, and with severe and multiple disabilities. The course of their lives is necessarily regulated by the decisions of parents, carers, pedagogues, and therapists. Very often, they spend their entire lives in 24/7 therapeutic and care institutions, where they are subject

to the rules of the facility's functioning. Situations in which a person with disability is able to make fully sovereign, independent decisions are rare. Of course, it could also be that they are unable to make many such decisions. Generally, disabled people, including those best cared for and benefitting from the best available therapy, live in a world created by non-disabled people for non-disabled people. This is in some ways inevitable. At this point, it should also be emphasized that making decisions for many of our clients/patients is often necessary for their own good. Of course, this also applies to clients/patients other than those with disabilities, e.g., seniors with dementia, patients with mental disorders, with autism spectrum disorders, etc., all of whom participate in sessions in the Snoezelen room. The Snoezelen room is a place where the participants decide for themselves what they want to do and how they want to do it. The therapist does not make the decision for them – although he/she may help them (e.g., by demonstrating the use of the equipment or by communicating with the participant). However, even then, the therapist tries not to lead the client but to be beside them or even to follow them. The initiative comes from the participant. If, for various reasons (e.g., because of learned helplessness), this initiative is initially limited, the therapist encourages the participant to be active – taking care, however, not to act in a task-oriented and directive manner. Therefore, there is no single "correct" use of the equipment in the Snoezelen room. For example, for the therapist it would probably seem that the "correct" use of the ball pool would involve diving into its depths, whereas for the participant, it might involve taking out some of the balls and arranging them in patterns on the floor. The Opportunity for Choice principle means that the therapist does not question the choices of the participant, ensuring only that a participant's activities in the Snoezelen space do not become stereotypical or disturb other participants. The Opportunity for Choice principle corresponds, in particular, with the principles of the Opportunity to Set the Pace, the Proper Fundamental Attitude, and the Right Supervision.

3. THE OPPORTUNITY TO SET THE PACE

This rule means that we give the participants as much time as they need to receive and process the stimuli reaching them in the Snoezelen room. Hulsegge and Verheul observe that a person with deficits (e.g., with a disability) needs much more time to receive stimuli, assign them, and then start to use them in their individual experience of the "other world" of Snoezelen. The participant gets to know the Snoezelen space and then uses it at their own pace, without being rushed by the therapist to do something "more efficiently". Thus, the participant makes decisions regarding not only the type of activities undertaken, but also the pace of their performance. Daily rehabilitation procedures or pedagogical programs require adaptation to certain time requirements. Sometimes this can come across as a sort of therapeutic or pedagogical "hyperactivity". In other words, in the otherwise laudable desire of the therapist to achieve results in the form of improvement, the client/patient is sometimes forced into activities at too quick a pace. Even outside of rehabilitation programs, those with disabilities must adapt to the pace of events that are set by non-disabled people. The reverse is true in the Snoezelen room – the pace of events is adapted

to the capabilities and needs of the participant. No forcing of the pace is allowed during Snoezelen sessions. The participants should be given the opportunity to continue a chosen activity or stay with a chosen piece of equipment as long as they wish. The therapist must only be alert to whether they are dealing with a harmful fixation or perseveration, or any other stereotypical behaviours. Since Snoezelen is essentially a task-free approach, there is no task in a session that must be completed "on time", and there are no time constraints to be met. Therefore, there is no question of forcing the participant on to the next part of the program. What is sometimes called the "Snoezelen event" or "Snoezelen process", that is, a session in the Snoezelen room, can seem very slow in the eyes of observers. But this is how the Opportunity to Set the Pace principle often appears. It is another principle in which the therapist walks next to or behind the participant, rather than ahead of him/her and pushing him/her to act faster. The Opportunity to Set the Pace principle corresponds, in particular, with the principles of the Opportunity for Choice, the Proper Fundamental Attitude, and the Right Supervision.

4. THE RIGHT LENGTH OF TIME

This rule applies to the optimal duration of a single session. The Snoezelen room is a multisensory environment, i.e., one in which different stimuli affect different sense organs. Experiences in such an environment should not last too long, since this may overstimulate, and the negative consequences of overstimulation can be very serious (e.g., headaches, dizziness, nausea, and, in extreme cases, attacks of aggression or even epilepsy attacks). On the other hand, too short a stay in the multisensory environment of Snoezelen will not bring therapeutic effects. Generally, a single session in a Snoezelen room is assumed to take an average of 30 to 45 minutes. The session may be slightly shorter or slightly longer – any differences result from the daily form of the participant and their individual needs. This in turn means that the therapist should keep a close eye on the participant at all times to spot signs of fatigue from being in a multisensory environment. This may turn out to be a particular challenge with those who do not communicate verbally – in this case, the therapist should be able to accurately recognize non-verbal communication signals (facial expressions, gestures, body posture, muscle tension or relaxation, etc.). Of course, there are also participants of Snoezelen sessions with whom, from the very beginning, AAC should be used. The therapist may be faced with the question of how to implement the Right Length of Time principle without violating two other principles: the Opportunity to Set the Pace, and the Opportunity for Choice. Further on in this chapter, you will find detailed instructions on situations in which a participant wants to leave the Snoezelen room prematurely or, contrarily, wants to remain in the Snoezelen room for too long. Let it be noted for now that the rule of the Right Length of Time always requires appropriate signalling of the beginning and end of the session. It is a good practice to rely on rituals or gradual, gentle changes in stimuli so that opening and ending of sessions are non-invasive, non-directive and meet with the approval of the participant. In the context of the principle of the Right Length of Time, we should also warn against therapeutic "overactivity". That is, the participant does not have to be constantly occupied (activated) in order to make the best use of the

session. There may be frequent episodes of participant withdrawal and "inactivity" during the session. However, this passivity is only apparent. In fact, the participant is organizing and processing the collected (in particular, sensory) information. The smooth transition from being active to inactive (and back again) is characteristic of a Snoezelen session. The principles of the Right Length of Time corresponds, in particular, with the principles of the Proper Fundamental Attitude, and the Right Supervision.

5. REPETITION

This rule applies to the frequency of sessions held in the Snoezelen room. In the literature, some critical opinions suggest that the Snoezelen method does not have a long-term effect – that is, sessions must be repeated regularly for the method to "work". Whether or not we agree with these comments, it is worth bearing in mind that most Snoezelen patients/clients require regular repetition of other pedagogical, therapeutic, and even pharmacological interventions to maintain their desired effect (for more information on long-time and carry-over effects in the Snoezelen method, see page 161). However, there is no doubt that regular attendance of Snoezelen sessions is essential for the full potential of the Snoezelen method to be realized. The Repetition principle provides for the possibility of an unlimited number of sessions, depending on the needs of the participant. Some groups of participants (such as those with intellectual disabilities), due to the specificity of their perception, need more time to become familiarized with the sensory world of Snoezelen. For them, the Repetition principle is of particular importance. It is generally accepted that Snoezelen sessions should take place at least once a week, although there are participants for whom it would be optimal to introduce Snoezelen sessions into their daily program (e.g., seniors with dementia who attend Snoezelen sessions every evening to alleviate the sun-downing typical of many or patients with mental disorders who come to the Snoezelen room every day to lower their stress levels). There is no rule for how often or how long a client/patient should attend Snoezelen sessions. Such a decision is made depending on the individual needs of the participant. The Repetition principle corresponds, in particular, to the principles of the Proper Fundamental Attitude, and the Right Supervision.

6. A SELECTED CHOICE OF STIMULI

This principle ensures that the Snoezelen room is always an environment of stimuli appropriately selected and properly controlled by the therapist. The Snoezelen room, if incorrectly equipped and used, can easily become a place where participants will be overwhelmed by an excess of stimuli. As mentioned above, sensory overstimulation leads to stress, irritability, and fatigue besides physiological reactions such as nausea, headaches, and even epilepsy attacks, eyeball photoburns, and photoallergic skin reactions (due to overuse of UV light – for more information on the controversy surrounding use of UV light in the Snoezelen room, see page 124). In a properly equipped Snoezelen room, the stimuli are non-directive and reduced sufficiently for the participant to explore them safely. We

should also pay attention to the "choice" part of this principle. This clearly suggests that the participant has the right not to use certain elements in the range of stimuli prepared for them. According to the philosophy of Snoezelen, the therapist does not impose anything on the participant and accepts their decisions. When preparing the selection, the therapist takes into account the needs, capabilities, and preferences of the participant. It is necessary for the therapist to read the patient's documentation (especially the opinions of doctors and psychologists, and diagnosis of SI therapists etc.) in order to find out if there are any contraindications that must be considered in the preparation of the selected choice of stimuli (e.g., overactivity or sub-reactivity in a given sensory system, allergies, thrombocytopenia, epilepsy, cardiac problems etc.) The principle of a Selected Choice of Stimuli corresponds, in particular, with the principles of the Right Atmosphere, the Opportunity for Choice, the Opportunity to Set the Pace, the Proper Fundamental Attitude, and the Right Supervision.

7. THE PROPER FUNDAMENTAL ATTITUDE

This principle determines the therapist's attitude towards the Snoezelen method and, at the same time, towards the people who participate in the Snoezelen sessions. The Snoezelen space is an environment of non-invasive, participant-friendly sensory stimuli, in which it is enough to simply be and feel without the need to complete any specific task or rationalize or to have a certain minimum level of cognitive skills. This is why many groups of participants (such as those with profound intellectual disabilities, those on the autism spectrum, or those with dementia) delve into the world of Snoezelen with joy and relief – a world so different from their everyday life full of commands, prohibitions, and goals to be achieved**.** Paradoxically, it is the therapist who may have problems orienting him/herself in the sensory world of Snoezelen. A rational perspective honed daily, with a focus on the achievement of goals and a task-oriented approach may prevent the therapist from understanding what "snoezeling" really is, i.e., immersion in a space of specific stimuli. Ad Verheul and Jan Hulsegge seem to have foreseen the difficulty that therapists might encounter during the sessions – hence the examples of "snoezeling" outside the Snoezelen room which they give in their book "Snoezelen, Another World" (lying in a meadow, watching the fire – to feel and to be rather than to analyse and define). On the other hand, it should be remembered that, unlike the participant, the therapist conducting the session cannot completely immerse him/herself in the experience of the stimuli. Snoezelen is a space of controlled stimuli (i.e., controlled by the therapist), and so the person conducting the sessions should have appropriate qualifications. Thus, the therapist must not abandon rational thinking even in the Snoezelen room; to repeat, it is the therapist who controls the stimuli, watches over the participant's safety, assesses their current form, and, of course, bears in mind the eight principles of conducting Snoezelen sessions. The principles of a Proper Fundamental Attitude require the therapist to find a golden mean between following knowledge and rules and using intuition and flexibility when conducting the session. The Proper Fundamental Attitude principle also emphasizes that the key element in the therapist's attitude should be the ability to display positive emotions to the participant: patience, delicacy, sensitivity, intuition, and openness

to the participant's potential, instead of focusing on their limitations. Another aspect of the Proper Fundamental Attitude is heeding the diversity of stimuli. An able-bodied person unconsciously focuses primarily on visual stimuli. However, the richness of Snoezelen lies in the balanced multiplicity of stimuli, so the therapist should also pay attention to the other channels of perception: hearing, touch, smell, taste, and proprioception. Those who wish to accompany their clients/patients effectively in the world of Snoezelen must first discover this world for themselves. The principle of the Proper Fundamental Attitude corresponds in particular, with the principles of the Opportunity for Choice, the Opportunity to Set the Pace, the Right Supervision.

8. THE RIGHT SUPERVISION

This principle is not about supervising the course of therapy or giving instructions to the participant. We would do well to remember the Snoezelen slogan here: "I don't have to do anything, I can do everything." The principle of the Right Supervision concerns building appropriate contact and relationship between the person conducting the therapy and the person participating in the therapy. In the first years of the functioning of Snoezelen rooms in the Netherlands, the question of whether therapists should be with the participant at all during the session was considered; for example, the Haus Piusoord used a Venetian mirror through which therapists observed participants of the Snoezelen sessions from an adjacent room. However, the importance of the presence of a therapist during the session is now emphasized, and it is considered valuable, if not essential, to keep in touch with the participant during the session. In this way, the space of stimuli is enriched with a human factor. Often in the Snoezelen room even difficult clients untypically initiate interaction and communication. Therefore, the person conducting the Snoezelen session should adopt the attitude of a careful, kind, but also reserved companion and observer. Such a therapist does not impose anything on the participant, leaves them free to explore the Snoezelen room on their own, does not divert them from activities unnecessarily – but on the other hand, whenever necessary, the therapist is ready to help, cares about the safety of participants, maintains contact, and responds to participants' communication. If the participant does not engage in activities that could be dangerous to him/herself or others, the therapist accepts even the strangest behaviours. For the client, such behaviour always has some meaning – for example, it might be an attempt to communicate or interact, or simply an expression of satisfaction and joy from being in the Snoezelen room. Some participants need more motivation and guidance from the therapist since they are not able to try something new on their own. Different participants react differently to individual stimuli (both positively and negatively) – so the therapist must pay attention to, for example, when to turn on or turn off a piece of equipment. In summary, the principle of the Right Supervision again requires the therapist to find a golden mean between the messages: "I am here with you and I will help you if you want" and "I'm not imposing anything on you, you can do whatever you want here". The principle of the Right Supervision corresponds, in particular, with the principles of the Opportunity for Choice, the Opportunity to Set the Pace, and the Right Attitude.

The analysis above shows that, in the case of Snoezelen, we are not dealing with rules as detailed and extensive as in other therapeutic or pedagogical methods. Nevertheless, without these eight principles, we would have no framework on which to build a Snoezelen session. At first glance, the directions formulated by Hulsegge and Verheul may also seem somewhat intuitive. However, on closer inspection, it turns out that they contain elements that are an important part of other, more extensive and formalized therapeutic and pedagogical concepts, including:

- a person-centred approach (Carl Rogers),
- following the client (Maria Montessori),
- focusing on the client's strengths (Virginia Axline),
- appreciating the specific possibilities of activating and communicating with the client (Tom Kitwood),
- emphasizing the importance of sensory stimulation (A. Jean Ayres).

The principles formulated by Hulsegge and Verheul might be called "soft" principles. As such, they are in harmony with the "softness" of the entire Snoezelen concept. Thus, they not only describe the course of a session in the Snoezelen room, but also explain the essence of Snoezelen therapy itself (Zawiślak 2009: 23). And herein lies a certain danger: namely that the principles defining Snoezelen seem so straightforward at first glance that the method itself may seem simple. However, this simplicity is deceptive since the principles overlap, complement each other, and thus form a system of sorts. It is not always easy to keep one without breaking another. For example, in the case of the principle of the Opportunity for Choice, it may happen that the client wants to stay in the Snoezelen room longer than is safe for him/her (risking overstimulation). At this point, we must therefore, without violating the principle of the Opportunity for Choice, comply with the principle of the Right Length of Time.

Below, the author explains how to deal with some of the basic problems during a Snoezelen session, taking into account the Snoezelen principles.

Problem	Examples of activities
The participant falls into stereotypical behaviours.	1. Redirect attention (e.g., by introducing another attractive stimulus). 2. Apply the option method (Son – Rise). 3. Change the intensity of the stimulus causing the stereotype. 4. Remove of the stimulus causing the stereotype. 5. Change the structure of the session (e.g. not a free session, but thematic/according to a scenario session)

Problem	Examples of activities
The participant does not want to leave the Snoezelen room	1. Introduce a ritual at the end of the session. 2. Invent a ritual together with the participant at the end of the session. 3. Engage the participant in turning off the equipment/ cleaning the Snoezelen room/showing the parent around the room (conflict-free, "masked" ending of sessions).
The participant leaves the Snoezelen room too soon	1. Increase the attractiveness of the sessions – e.g., introduce scenario-based sessions instead of free sessions (or vice versa, depending on the participant). 2. Rethink the nature of the sessions: group or individual? 3. Consider the selection of stimuli: inappropriate for the participant? too intense/not enough intense? wrong range of stimuli?
The participant is hyperactive/ difficult to control during the session.	1. Change the nature of the session. 2. Change the structure of the stimuli. 3. Change the activity of the therapist.
The participant gets bored in the Snoezelen Room.	1. Change the nature of the session. 2. Change the structure of stimuli. 3. Change the activity of the therapist.

In the author's experience, failure to follow one principle very often also entails violation of most of the other principles. Let us take, for example, the principle of the Right Atmosphere:

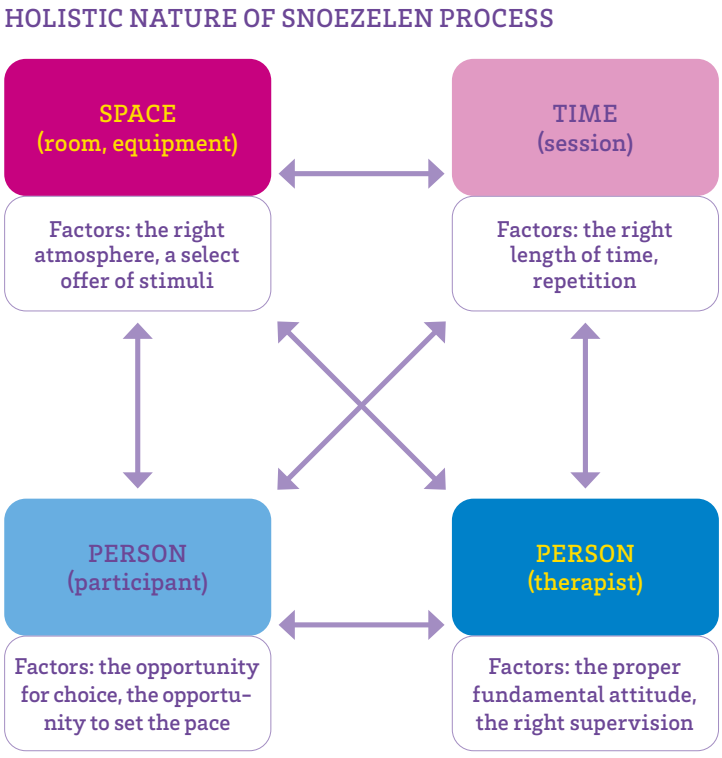
1. Failure to comply with this principle consists primarily in the incorrect arrangement of the space, i.e., inadequate/inadequately arranged furniture and equipment, inadequate lighting and sounds.
2. As a result, stimulation occurring in this space does not meet the multisensory stimulation criteria characteristic of the Snoezelen room.
3. Thus, the principle of a Selected Choice of Stimuli is violated.
4. In turn, incorrect stimuli make it difficult for the participant to make sovereign decisions (i.e., there is a violation of the Opportunity for Choice principle).
5. Incorrect stimuli may also cause the participant to leave the Snoezelen room sooner than if the structure of space and stimuli are correct (meaning a violation of the Opportunity to Set the Pace principle).

6. Ultimately, the Proper Fundamental Attitude principle is also violated, since a therapist who tries to conduct a Snoezelen session in such a poorly arranged Snoezelen room apparently does not understand the specifics or requirements of the Snoezelen method.
7. Finally, it will not be easy to observe the Right Supervision principle in such a Snoezelen room (see also: Smrokowska-Reichmann, 2018: 318).

The principles formulated by Hulsegge and Verheul reflect the holistic nature of Snoezelen and do not neglect any aspect of this therapy. They therefore contain:

- **a material component** – room, equipment (principles: the Right Atmosphere, a Selected Choice of Stimuli)
- **a time component** – single session, series of sessions (principles: the Right Length of Time, Repetition)
- **a personal component** – participant, facilitator (principles: the Opportunity for Choice, the Opportunity to Set the Pace, the Proper Fundamental Attitude, the Right Supervision).

Diagram 9: Snoezelen components can also be represented by separating the participant and the facilitator (Smrokowska-Reichmann, 2018: 317).



Own elaboration based on J. Huslegge, A. Verheul, "Snoezelen, another world", Chesterfield 2005

This chapter aimed to show that the Snoezelen principles constitute a kind of system, with each principle describing Snoezelen from a slightly different perspective, and together complementing each other to create a whole. In this sense we can speak of the systemic nature of Snoezelen. It is also worth emphasizing that the principles of Snoezelen can be considered empowering and emancipating for those with disabilities, which, in turn, creates a strong ethical message. Thus, the principles discussed fully reflect the current and widely accepted definition of Snoezelen: **Incorporating a conceptual framework, MSE/Snoezelen is defined as a dynamic pool of intellectual property built on an ongoing sensitive relationship between the participant, a skilled companion, and a controlled environment, in which a multitude of sensory stimuli are offered. Developed in the mid-1970s and practiced worldwide, MSE/Snoezelen is guided by the ethical principle of the enrichment of quality of life. This shared approach has applications in leisure, therapy, and education, and occurs in a dedicated space suitable for all** (isna-mse.org 2017).

In light of this chapter, and especially of the definition above, it should also be clear that the holistic nature of Snoezelen requires versatility from the therapist conducting the sessions. This means that the therapist should not only be adept at the purely technical aspects of arranging and using a Snoezelen room but should also have a good understanding of ethical elements, the enabling of relationships, and client-centered attitudes.

2.1.3 SNOEZELEN ROOM – SPACE ARRANGEMENT AND EQUIPMENT

THE THERAPEUTIC "TRIAD" AND WHAT MIGHT DISRUPT IT

In the Snoezelen method, we are dealing with a therapeutic "triad" which consists of:

1. the proper arrangement of space
2. the proper use of devices and accessories
3. the proper relationship between the therapist and the participant

Even the best arranged and most expensively equipped Snoezelen room will not provide the desired results if the therapist lacks the ability to interact with the participant and, subsequently, build a relationship with them on this foundation. On the other hand, an improperly arranged Snoezelen room in which the equipment is not properly selected and not used according to the participant's needs will seriously hinder the establishment of relationships so vital for therapeutic success.

In Poland, the first Snoezelen rooms were set up in the mid-1990s. Despite the great enthusiasm and commitment of the therapeutic community, the early years of establishing the Snoezelen method here were not without mistakes. Knowledge of the method was

restricted to the few Polish specialists who had a chance to encounter it after the political and economic breakthroughs of 1989 (for more information about the history of Snoezelen in Poland, see page 103). However, even abroad, Snoezelen was still a relatively new method. Although the practice of Snoezelen was becoming increasingly widespread, it took time, as always, for conclusions to be drawn. It is also worth noting that the organization of the world Snoezelen movement into associations took place only in the 2000s. Before Snoezelen practitioners and theorists began to associate, exchange experiences at world congresses, and conduct research in the field of Snoezelen, mistakes were made everywhere; a good example of which was the overly casual use of UV light, criticized by Sven Dagenhardt, among others (Dagenhardt 2006).

Controversy over the Use of UV Light in the Snoezelen Room

When the mobile Activity Tents evolved into the first stationary Snoezelen rooms, they were not yet equipped with facilities as diverse as today's Snoezelen rooms. Gradually, more and more diverse, more complex devices were constructed to meet the requirement of multisensory stimulation and, at the same time, to comply with Snoezelen methodological principles. Visual stimulation was initially provided by spotlights and lamps, followed by the first projectors, mirror balls, and, finally, water (bubble) columns and fiber optic strings. The last two pieces of equipment, in particular, became and are still the hallmark of the Snoezelen room. The old fiberglass optic fibers have now been replaced by safer LED optic fibers, which are turned on and off by remote control and provide the option of smooth and gentle transition from one color to another. In addition, today's water (bubble) columns differ from their prototypes in that they come in an interactive version, with the possibility of controlling the shape and speed of the escaping air bubbles, and in a double version (tube in a tube) with various elements rising in the water etc.

Today's Snoezelen rooms, however, differ from the first Snoezelen space not only in terms of modernized equipment. There are also many new elements that were completely absent in the original Snoezelen rooms. These devices include UV light. In most modern Snoezelen rooms (not only in Poland), UV light and elements/materials that shine in UV light occupy a very important place. They are sometimes treated on a par with optic fibers and water (bubble) columns and are even used in place of optic fibers and water columns. UV light often plays an essential role during Snoezelen, whether free or thematic sessions/sessions according to a scenario. Situations may occur in which the use of UV light in the Snoezelen room becomes completely disproportionate compared to the use of other visual stimulation options. It is not difficult to understand the reason for this state of affairs, especially in Poland. Namely, UV light sources and products illuminated by UV light are much cheaper than traditional Snoezelen devices that stimulate visually, i.e., water columns, fiber optic strings and projectors (liquid and disc). For a relatively modest sum of money, UV light creates an attractive impression in the Snoezelen room, making it seem a more unusual and effective space.

However, it should be noted that many Snoezelen specialists are very cautious or even skeptical about the use of UV light in the Snoezelen room, especially when used as often and intensively as can be observed today. The more space UV light occupies in Snoezelen rooms, the greater the level of criticism from experts concerned about this state of affairs (see, for example, Mertens, 2005). The least important (albeit valid) argument is that the nature of UV light is actually not compatible with the type of multisensory stimulation and the requirement of reduced stimuli specific to the Snoezelen concept. UV light does not have the scattering and softening effect that is typical of optic fibers and water columns. It does not surround the participant in a gentle and friendly sensory layer. The UV light is rather hard, cold, with clear contours and, as such, does not fit into the Snoezelen space.

However, arguments regarding the influence of UV light on the health of the participant in the Snoezelen session have much greater weight. Here, the most doubts arise. An example is the meta-analysis carried out by Professor Sven Degenhardt, lecturer in typhlo-pedagogy at the University of Hamburg (Degenhardt 2006). Based on a number of available studies and literature on the subject, Sven Degenhardt stated the following:

- UV light (with a wavelength in the range 315–400nm, known as UV-A) poses a particular risk to children, as the ability of the lens to absorb UV-A rays only increases with age. In children, the load on the retina from UV radiation is so great that international studies indicate the need to protect children's eyes against UV-A (e.g., using protective glasses).
- In the darkened space of the Snoezelen room, the pupil adapts to the lighting conditions, i.e., it widens. As a result, an increased amount of radiation enters the eye (the doubling of the pupil's diameter allows four times more UV rays to pass through).
- In the darkened Snoezelen room, defense mechanisms are reduced, such as the blink reflex, which is responsible for the regulation of the light supply.
- Participants in a Snoezelen session often lie on their back, which increases the amount of UV radiation absorbed.
- Many participants of the Snoezelen session are people undergoing constant pharmacotherapy due to their condition. Studies have shown that in combination with medication, UV light can cause photoallergic reactions of the skin and eyes in these patients. This is known as photosensitization, and is associated with drugs such as diuretics, non-steroidal anti-inflammatory drugs, antipsychotics, antidepressants, anti-epileptics, antihistamines, and some dermatological agents.

Therefore, Sven Degenhardt suggests that when using UV light in the Snoezelen room, both the patients and the therapist should protect themselves with protective glasses (using appropriate glasses can block up to 99% of UV radiation, i.e., up to

380 nm). However, glasses do not protect against possible photoallergic reactions of the skin.

Thus, although sessions with the use of UV light in the Snoezelen room are very popular, especially for partially sighted and visually impaired children, and typhlo-therapists and therapists emphasize the results that can be achieved with UV light (for example, improved focus on an object), it is worth remembering the risks associated with the careless and excessive use of UV light during Snoezelen sessions. A better solution for this group of participants would be to section off a small black Snoezelen room/black Snoezelen corner from the entire Snoezelen space (for more information about black Snoezelen space see p. 133). For other groups of patients, instead of UV light, it is better to stick to LED lamps, incandescent lamps, colored reflective foils, projections, and other visually stimulating devices typical for Snoezelen, but not based on UV light.

Above all, elements illuminated under UV light should not be considered a permanent "decoration" of the Snoezelen room and should not be turned on for the entire time the Snoezelen room is used. Instead of a UV waterfall, it is much better and safer to install a fiber optic waterfall; in place of toys that shine in UV light, attractive LED toys, etc. can be used. A contrast effect (although not as strong as with UV light) can be obtained by using blue LEDs.

If UV light must be used, it should be remembered that:

- it should only last a few minutes
- one must never look at the light source,
- in case of prolonged exposure, it is necessary to use protective glasses.

Therapists remaining in the Snoezelen room longer than individual patients (as the therapist usually conducts several sessions in succession) should remember that they themselves will also be exposed to the harmful effects of UV light.

As for Poland, an additional factor contributing to errors in the arrangement of the first Snoezelen rooms was the newly regained economic freedom after the political breakthrough of 1989. The companies that arranged Snoezelen rooms were often guided by purely commercial motivations, without adequate knowledge of the Snoezelen method. Insufficient knowledge was the cause of errors in the arrangement of the Snoezelen space and low-quality equipment was used. Fortunately, the 2000s marked the beginning of the increasing professionalization of Snoezelen in Poland. Today, the Snoezelen method is part of academic teaching in Poland. ISNA-MSE Polska is active, national and international research projects are conducted, and the process of broadly understood education on the Snoezelen method, at various levels, and addressed to all interested in Snoezelen, continues.

One of the aspects emphasized during this education is that the Snoezelen room must also be well thought out when it comes to the selection, arrangement, and use of equipment. This in combination with a therapist with the appropriate attitude (i.e., one adopting a patient-centered approach and adhering to all eight Snoezelen principles during the session), gives us the therapeutic triad mentioned at the beginning. A Snoezelen room improperly equipped and improperly used poses a risk to the participant and the therapist due to likelihood of overstimulation and associated sensory and emotional dysregulation.

COLORED OR WHITE SNOEZELEN ROOMS?

At the beginning of the development of the Snoezelen method in Poland, virtually all Snoezelen rooms were colored. In such Snoezelen rooms, the furnishings had different colors, and the walls were not always painted white. Today, color Snoezelen rooms are being abandoned, except when they are arranged for specific participants, namely preschool children without diagnosis. Such rooms are primarily playrooms, and are, of course, also very valuable. Typical equipment in color Snoezelen rooms in Poland are: a ball pool, water columns, optic fibers, a light and sound track, a mirror cabin.

However, there are many groups of participants for whom color Snoezelen rooms are not suitable. They include people with autism spectrum disorders, people with sensory integration/sensory modulation and processing disorders, people with mental disorders, and people with dementia. These groups are particularly susceptible to sensory overstimulation and may react violently to certain stimuli or become more easily disoriented. In a white Snoezelen room, i.e., a room with white equipment and white walls, the range of stimuli can be controlled more easily and precisely. For example, a white room can be made brighter (which may be recommended, for example, for autistic people or seniors with dementia), the white background can be given a specific color, or a certain color can be avoided (all color effects can be easily achieved on a white background). If necessary, white Snoezelen rooms can be presented to the participants as “sterile” in terms of sensory stimulation (which may be indicated, for example, for people with autism, but also for those with mental disorders). The white Snoezelen room may sometimes seem “austere”, but for many groups of patients it is precisely this “austerity”, this sensory “sterility” that brings relief.

Currently, many Snoezelen rooms in Poland, which until now were colored rooms, are being converted into white rooms. If therapists or pedagogues trained in the Snoezelen method work in such white Snoezelen rooms, the rooms receive certificates on behalf of ISNA-MSE Polska as approved Snoezelen rooms.

Fig. 30: White Snoezelen at the University of Physical Education in Krakow no 1

Fig. 31: White Snoezelen at the University of Physical Education in Kraków no 2

Fig. 32: White Snoezelen at the University of Physical Education in Kraków no 3

Fig. 33: Color Snoezelen at the University of Physical Education in Kraków no 1

Fig. 34: Color Snoezelen at the University of Physical Education in Kraków no 2

BLACK SNOEZELEN ROOMS

For visually impaired and partially sighted people, the white Snoezelen room can be an unreadable space. These participants in the white room usually have great difficulty distinguishing the contours of the equipment, which for them blend in with the white background. In this case, appropriate adaptations should be made in the room by covering the edges of the equipment with tape in a contrasting color (red, black). Sometimes a necessary solution may be the deliberate use of colors at least in terms of the equipment – for example, a red armchair seat, a waterbed with a navy-blue eco-leather covering, etc.

In addition to adapting the white Snoezelen rooms to the needs of people with eyesight problems, black Snoezelen rooms are also used, which are intended specifically for this group of participants. In black Snoezelen rooms, the ceiling, walls and floor are black. The devices emit white light (it should be LED light), since contrast is used in black Snoezelen rooms. These rooms are particularly suited to the needs and capabilities of people who have retained only a sense of light or are visually impaired. Of course, in the black rooms there are – as in every Snoezelen room – water columns, optic fibers, a waterbed, etc. A special role is played by tactile, aromatic, and auditory stimulation. Black Snoezelen rooms are very often equipped with a quadraphonic sound system and musical (sound) furniture.

SNOEZELEN ROOM OR SNOEZELEN CORNER?

The Snoezelen room must be of a suitable size. It cannot give an impression of narrowness and clutter. Space – even empty space – is indispensable in Snoezelen; it should be understood as a therapeutic tool. Not all institutions in Poland can afford to allocate a large room to Snoezelen. Therefore, realistically, it has been established in Poland that the minimum area of the Snoezelen room should be 20–25 square meters. The optimal size of the Snoezelen room is 30–40 square meters. A larger room offers more options, such as: the introduction of a larger group of participants, the accommodation of more equipment, the arrangement of various niches (leisure, touch, etc.), greater motor freedom (especially important for the youngest participants).

A room smaller than 20 square meters is called a “Snoezelen corner” in Poland. Such a corner cannot be considered a “miniature Snoezelen room”. Due to the limited space, one does not have such freedom in multisensory stimulation as in a normal Snoezelen room. Usually one has to choose, for example, either a waterbed or a ball pool. For technical reasons, the Snoezelen corner will usually contain a separate Snoezelen aspect/fragment, so we will be dealing here rather with mono-sensory stimulation (e.g., one can imagine a Snoezelen corner where only one water column, a waterfall of fiber optics and a projection space can fit). But even in the smallest Snoezelen corner, we try to provide the possibility of both activation and relaxation during the sessions. When it is not possible to arrange a full-size Snoezelen room, a Snoezelen corner is well worth considering.

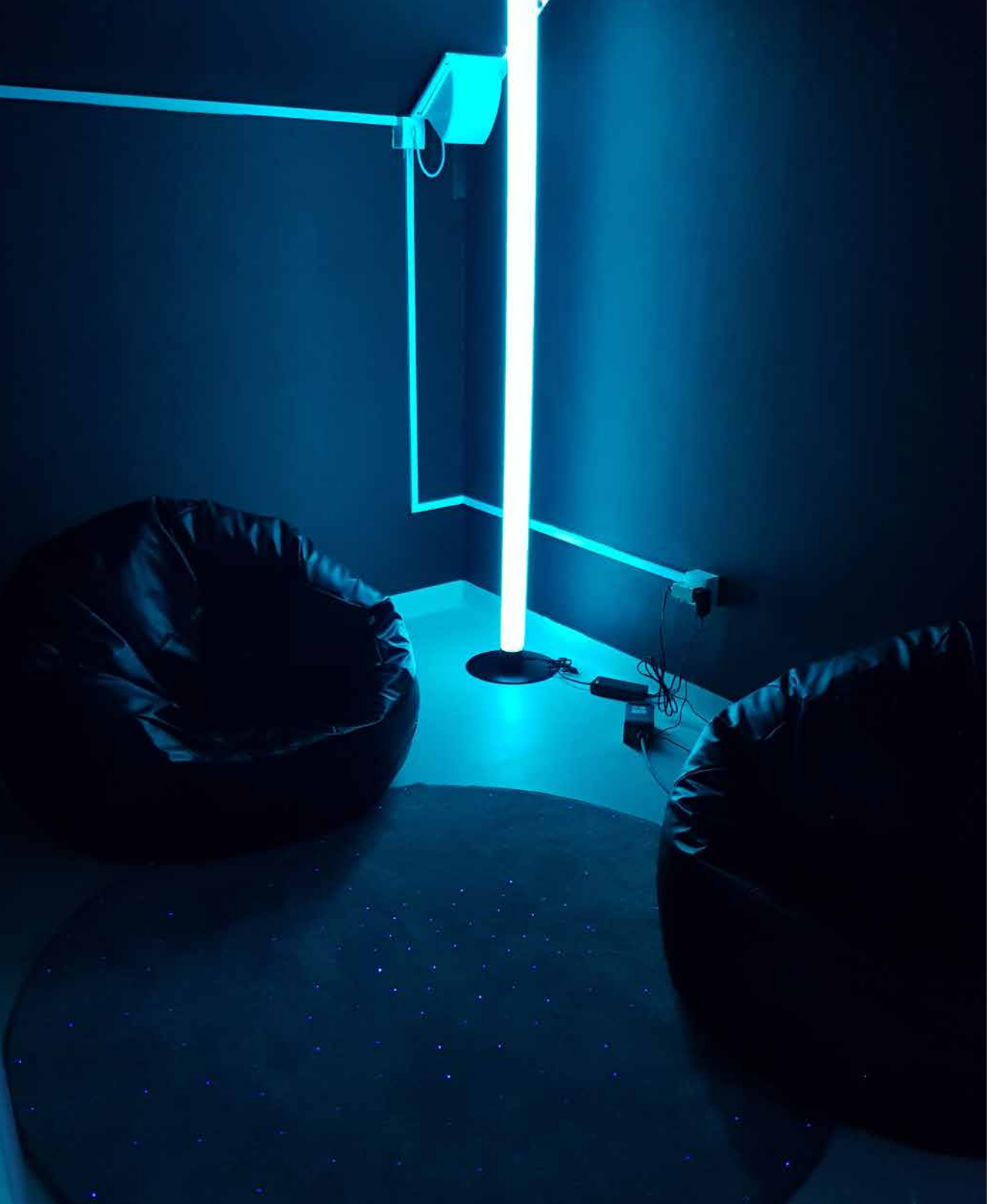


Fig. 35: Black Snoezelen in Powiatowy Zespół Szkół i Placówek Specjalnych in Bolesławiec no 1 (facility for children with disabilities and sight handicapped)

Fig. 36: Black Snoezelen in Powiatowy Zespół Szkół i Placówek Specjalnych in Bolesławiec no 2 (facility for children with disabilities and sight handicapped)

So, is it the rule that the bigger the Snoezelen room, the better? Not necessarily. Snoezelen rooms above 40m^2 have their drawbacks. Yes, a larger number of participants can be invited into a larger room, but then one of the main disadvantages becomes apparent: the lack of sound insulation between the individual parts of the room, which means participants might disturb each other during the session. It should also be remembered that a large Snoezelen room can be intimidating or confusing for some patients. Among those who do not necessarily feel comfortable in the large Snoezelen room are seniors with dementia (especially at a more advanced stage, when spatial disorientation becomes more and more pronounced) or those with autism.

An example from therapeutic practice:

A high functioning boy with autism was afraid to enter a 60 m^2 Snoezelen room. It was obvious that while the room attracted him on one hand, it overwhelmed him on the other. The accumulation of equipment in this large space was over-stimulating for him. The therapist dealt with this problem by separating the parts of the room with the help of folding mattresses, which she placed vertically, and then invited the boy into the smaller spaces created. In this way, gradually, in fragments, the boy got to know the whole Snoezelen room. However, he always preferred sessions in a smaller space, separated from the rest of the room (e.g., at the island of columns, on the waterbed, at the light and sound ladder, etc.).

(Based on the author's conversation with Paula Jaśkiewicz, MA who conducted the sessions)

Therefore, it is recommended to prepare in advance for the possibility of creating smaller annexes in large Snoezelen rooms, e.g., using folding screens or sliding curtains on curtain rails.

SNOEZELEN ROOM COMPLEX

A Snoezelen room complex is an ideal solution, consisting of several Snoezelen rooms connected by passages or a common corridor. The Snoezelen complex makes it possible to separate different areas of stimulation, as well as to conduct different activities independently of each other with different groups of participants. In the Snoezelen complex, participants have more choice, and it is easier to follow scenarios/thematic activities. The only downside to a Snoezelen room complex is the costs associated with its installation and maintenance.

Fig. 37: Snoezelen complex in Powiatowy Zespół Szkół i Placówek Specjalnych in Bolesławiec (facility for children with disabilities and sight handicapped)

SNOEZELEN OUTSIDE THE SNOEZELEN ROOM

The Snoezelen method is constantly evolving and has more and more to offer. Often the method is combined with other therapies, for example:

- Snoezelen plus hortitherapy. In specially designed therapeutic gardens, therapeutic contact with plants is combined with the effects of elements and objects typical of the Snoezelen arrangement.
- Snoezelen plus hydrotherapy (Wet Snoezelen). These are specially arranged pools in which the Snoezelen atmosphere is combined with the therapeutic effect of the aquatic environment.
- Snoezelen plus animal therapy (pet-facilitated therapy). In Snoezelen rooms, the participants are accompanied by appropriately selected and trained therapeutic animals

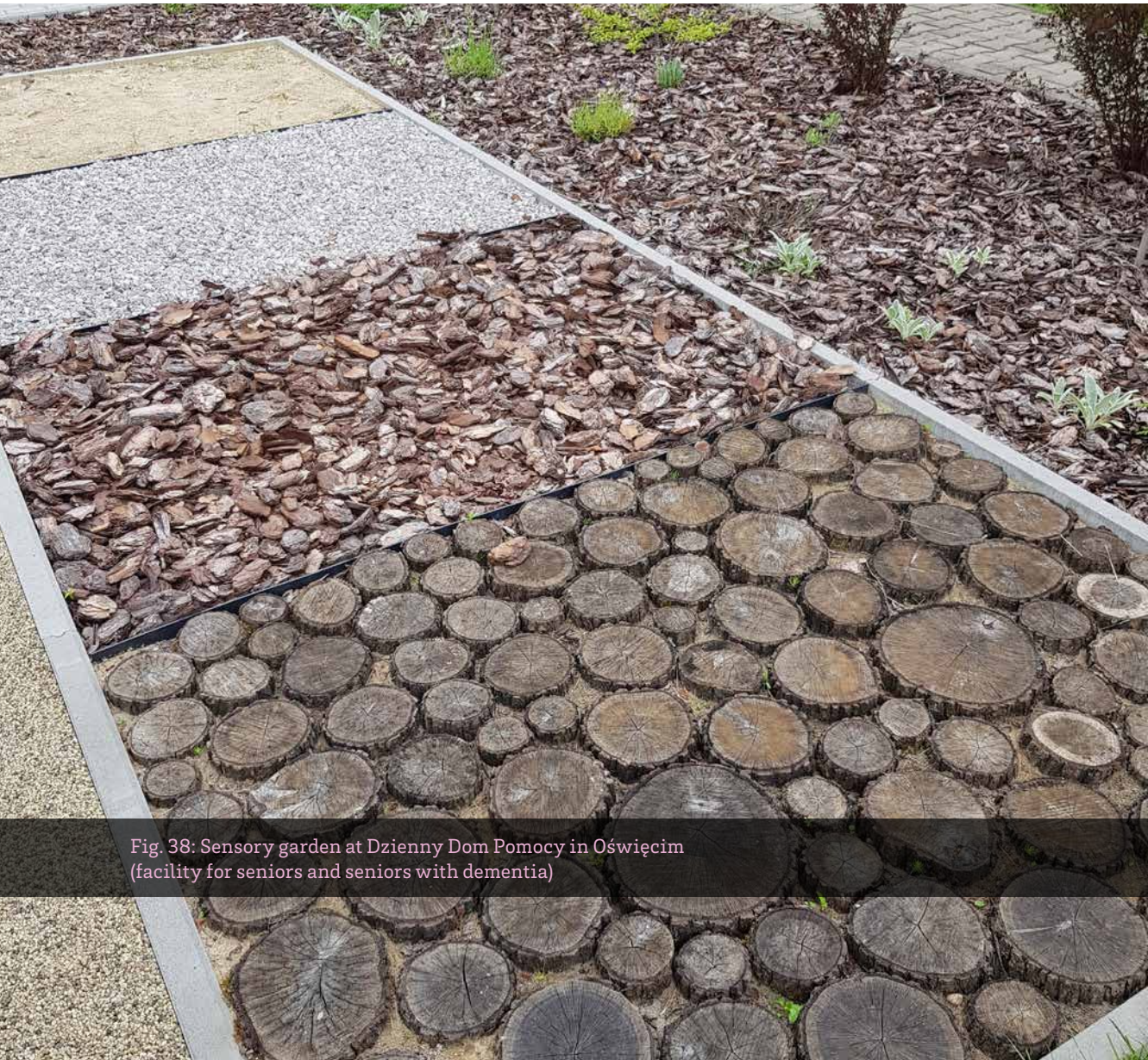


Fig. 38: Sensory garden at Dzienny Dom Pomocy in Oświęcim (facility for seniors and seniors with dementia)

(usually dogs, but in many Snoezelen rooms, especially for seniors, cats or rabbits may be introduced during the session).

The following varieties of Snoezelen spaces are also popular:

- Snoezelen Bus. These are large buses that travel around the country, like mobile libraries or blood donation vehicles. They come to places or establishments where there is no permanent Snoezelen room and allow users to experience the "other world" of Snoezelen. Such buses also go to regions where people suffer from PTSD or other traumas as a result of acts of terror or natural disasters (e.g., floods).
- Snoezelen trolley. Intended for people who cannot be taken to the Snoezelen room (for example, for long-term immobilized patients or in hospice care). The trolley is delivered to the patient's bed or room. Usually, it is equipped with a small water column, optic fibers, projector, and tactile, scent, and musical elements. (Smrokowska-Reichmann, 2013).

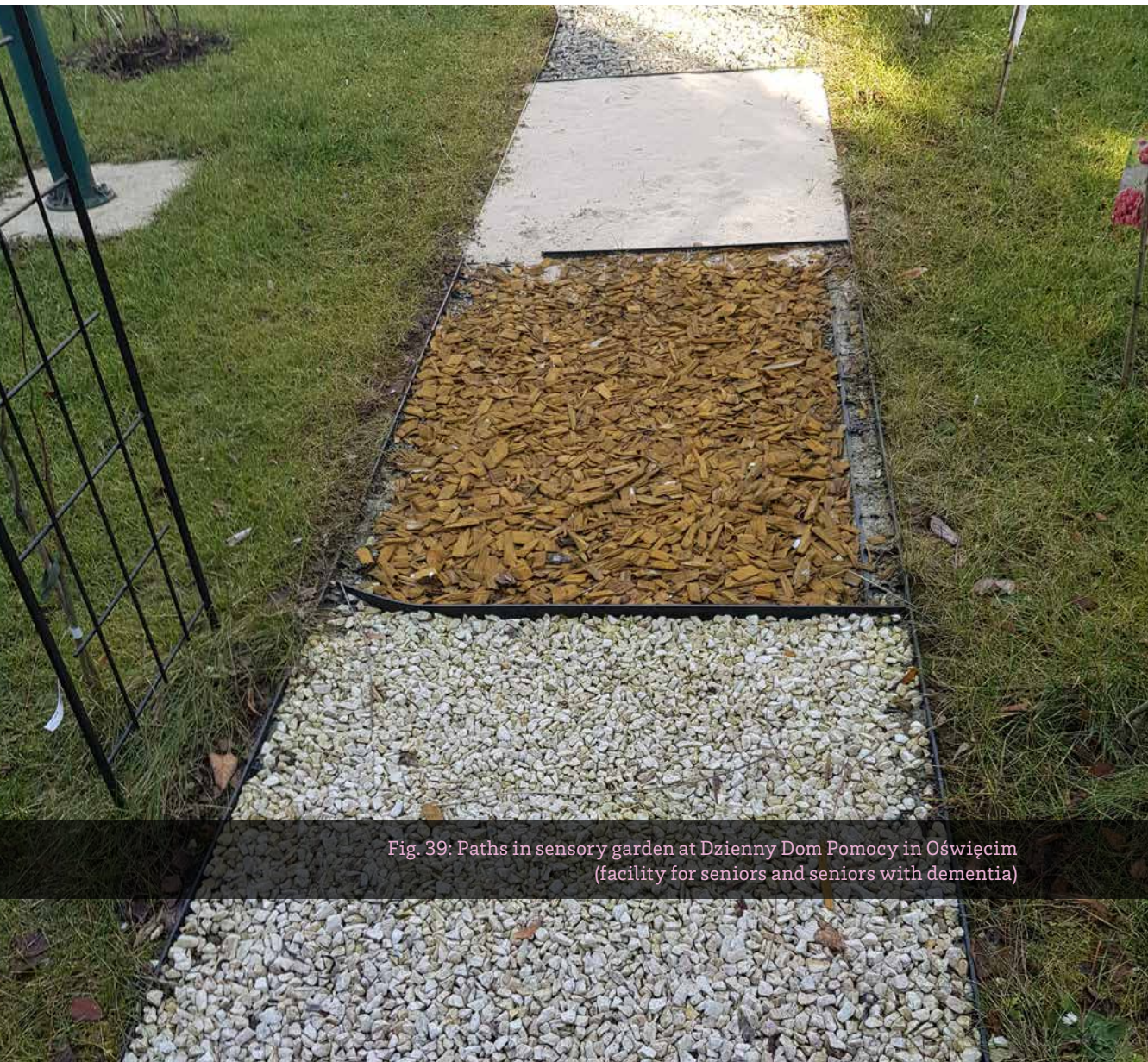


Fig. 39: Paths in sensory garden at Dzienny Dom Pomocy in Oświęcim (facility for seniors and seniors with dementia)

SNOEZELEN SPACE ARRANGEMENT RULES

The shape of the Snoezelen room should be more or less square. One should avoid long and narrow rooms since such rooms usually offer too little free space in the middle; and such free space is particularly necessary if the Snoezelen session is thematic/according to a scenario. If the room we have at our disposal is narrow, it is worth trying to divide it, if only symbolically, into two squares (e.g., with a waterfall of optic fibers attached to the ceiling). They will be easier to arrange correctly than one long narrow rectangle.

Each Snoezelen room should have a relaxing section and an activating section, determined through the selection of equipment. The following devices are suitable for the activating section: a ball pool, a light-and-sound track, a light-and-sound ladder, touch and manipulation boards, touch paths and touch walls, and Orff instruments. The relaxation area is typically equipped with a waterbed, hammocks, seats and armchairs, and optic fibers. On the border of these two parts there are water columns, musical furniture, and projections since these elements of the Snoezelen room can be used both for activation and relaxation. Of course, the equipment associated with relaxation can also be used for activation and vice versa. As a general rule, however, it is worth remembering that some devices are more suited to the "snuffelen" aspect and others more to the "doezelen" aspect of the Snoezelen method. In addition, it should be emphasized that activation and relaxation are understood differently in Snoezelen – depending on the group of participants (their possibilities and needs), and on the type of activities (free, thematic, according to a scenario) (for more information on types of Snoezelen sessions, see p. 154).

When arranging a Snoezelen room, one must take into account a few key rules:

- Do not introduce too many acrylic mirrors. They should usually be used in conjunction with devices where body movement can be observed (e.g., behind a ball pool, behind a waterbed) or where visual effects are enhanced (e.g., behind water columns). However, with some participants it is necessary to be very careful in the use of acrylic mirrors. These participants include people with dementia, with mental illness, and some people with autism. In these participants, mirrors can cause confusion and even anxiety or aggressive behavior. It should therefore be possible to cover the mirror if it causes discomfort to the participant. Care should be taken to avoid a situation in which one mirror is reflected in another. Such a situation can occur, for example, in a small Snoezelen room, when we put opposite each other an island of water columns (with a mirror on the wall behind the columns) and a waterbed (with a mirror on the wall behind the bed). We can avoid this problem by using a sliding curtain (which can be fabric) or a system of thin mattresses attached with Velcro. Of course, one hardly needs to emphasize that only safe mirrors can be used in Snoezelen rooms (hence acrylic mirrors).
- Do not place the waterbed in front of the entrance to the Snoezelen room. The waterbed should be in a quiet niche allowing relaxation, and this effect will be difficult to achieve when lying directly in front of the entrance. A solution may be to separate the waterbed from the view of the door with a fiber optic curtain or even a simple curtain made of light material, e.g., tulle.

- At least one part of the wall should be left free to allow projections to be shown there. Projections can also be directed onto the ceiling and floor, providing completely different options for activities for the participants (e.g., children like to jump on projections on the floor, whereas seniors who lie comfortably on their backs on a waterbed enjoy projections directly above them).
- The mirror ball, which (especially in Poland) is a traditional element of many Snoezelen rooms, should not be placed in the center of the ceiling. The mirror ball is illuminated by a light source, which gives the effect of non-directive and reduced illumination of the entire Snoezelen room. This does not mean, however, that the mirror ball can be treated as if it were a chandelier. The effects typical of a mirror ball are tiny light points that can change color under the influence of the light source or move along the walls and floor of the room if the ball rotates. It is for this reason that the light points should not be placed concentrically, as this could cause confusion and overstimulation. On the other hand, asymmetrically arranged light points create a unique atmosphere, specific to Snoezelen space. For this purpose, the mirror ball is mounted on the ceiling closer to one of the walls. It should also be noted that for some groups of participants the mirror ball must not be rotated be – primarily, participants diagnosed (or even only suspected) of epilepsy. Although the mirror ball can only rotate one revolution per minute in the Snoezelen room even such a slow rotation speed can be dangerous for these participants. It should also be remembered that the rotating mirror ball can become tiring after some time even for those who do not have such

Fig. 40: Double water column suitable for participants with epilepsy

problems. Therefore, the mirror ball is usually rotated for only a short time. On the other hand, it is attractive and safe to change the color of the light illuminating the mirror ball and its intensity. It is also perfectly sufficient for the Snoezelen session.

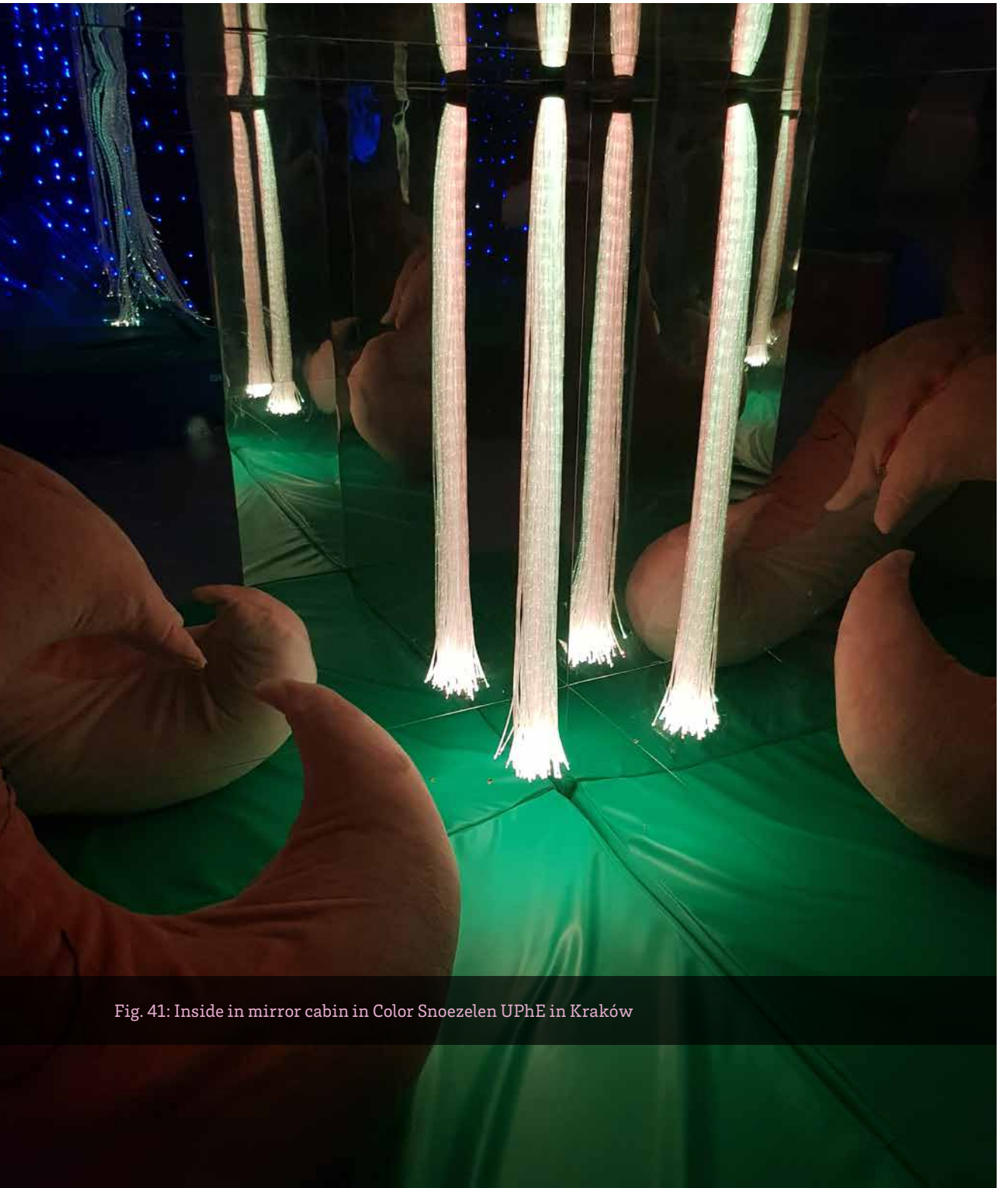


Fig. 41: Inside in mirror cabin in Color Snoezelen UPhE in Kraków

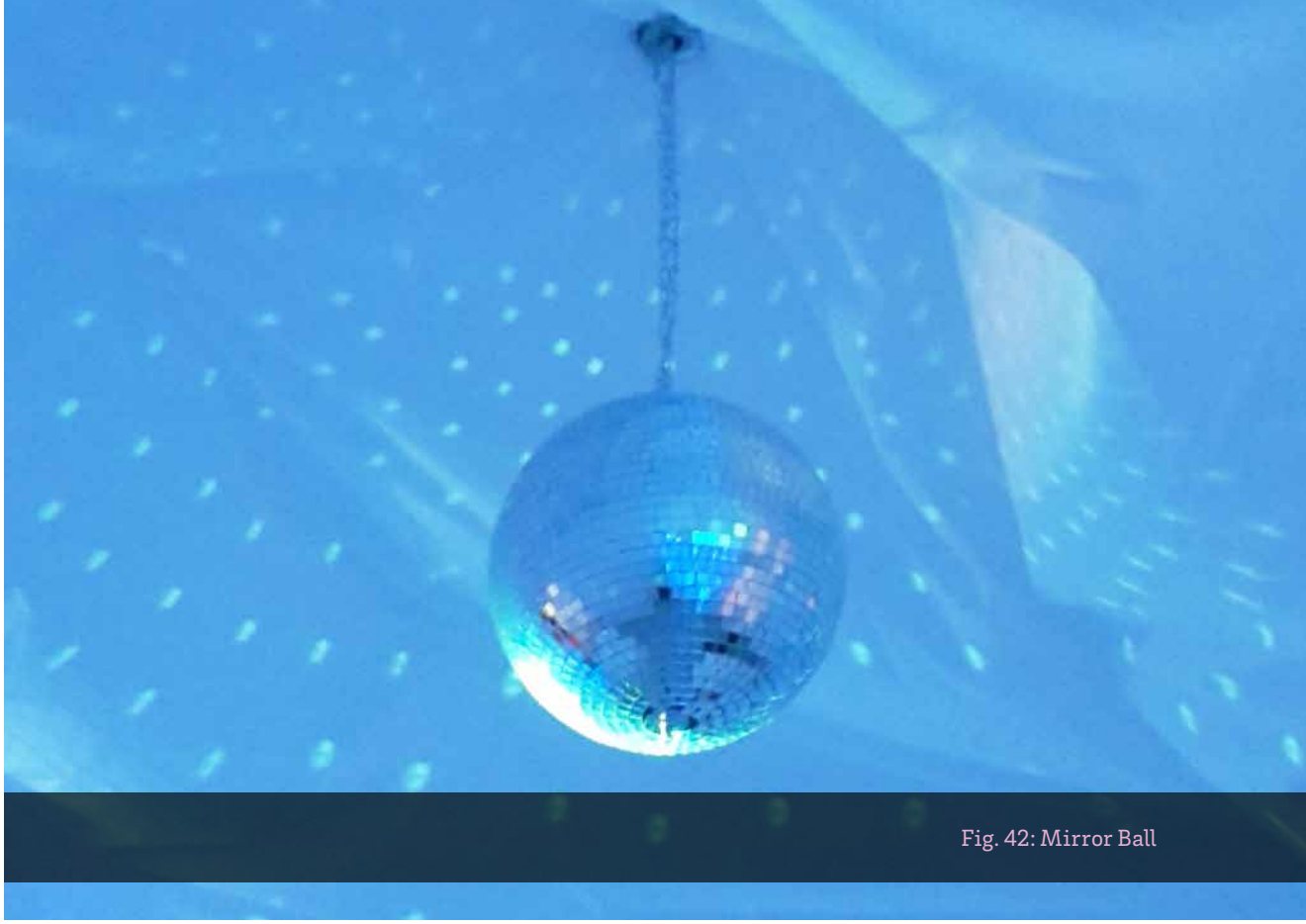


Fig. 42: Mirror Ball

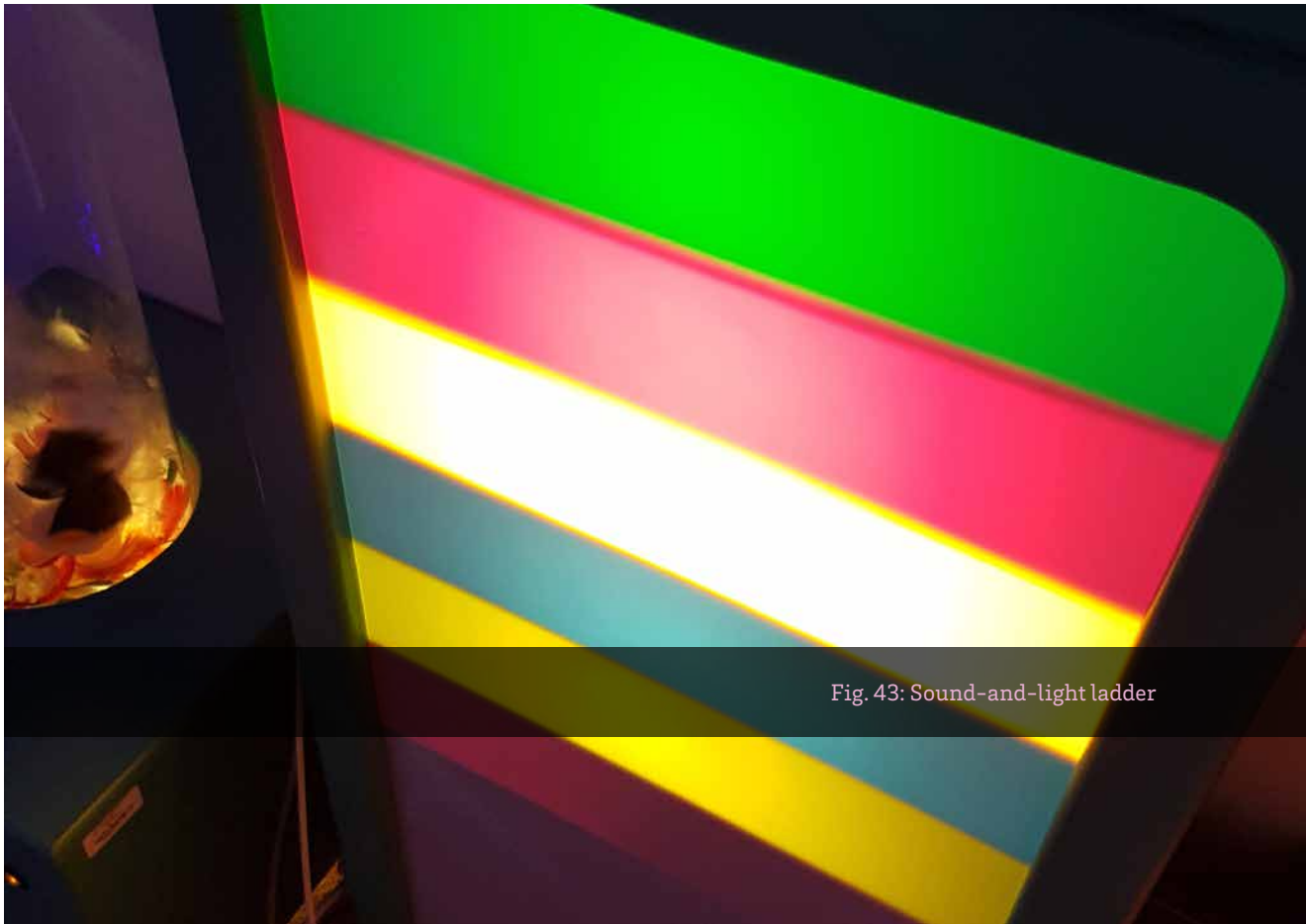


Fig. 43: Sound-and-light ladder

Fig. 44: Snoezelen trolley

SNOEZELEN DEVICES AND EQUIPMENT MOST POPULAR IN POLAND

Water (bubble) tubes – Recommended: in an interactive version (with a control panel for the participant), built into the platform (the so-called island of columns) allowing the therapist and the participant to enjoy the column together (lying/sitting at the column). Stimulation: visual, auditory, tactile, vibrational, superficial sensibility, in the case of interactive columns: fine motor skills stimulation, hand-eye coordination. NOTE: Caution should be exercised in the case of participants with epilepsy (especially, avoid placing the participant's head against the column). For such participants, double columns (tube in tube) are recommended (water vibrates only in the inner tube).

Optic fibers – In form of loose strings and/or curtains and waterfalls. Stimulation: Tactile and visual, superficial sensibility, fine motor skills.

Waterbed – It must always have a heating system with a thermostat. It can be equipped with a musical base (the sound is transmitted through water) or a vibrating mat. Simulation: proprioceptive, kinesthetic, tactile, auditory. The waterbed is one of the most important elements of the Snoezelen room equipment for people with multiple severe disabilities, but it is widely used by all other groups of participants. And no wonder, since lying on a waterbed offers many fascinating experiences. The surface of the waterbed adapts perfectly to the shape of the body of the reclining person. Even minimal physical activity has some effect. The participant feels the movement of the water with their whole body. An individual, even with limited abilities, can also relatively easily perform independent activity. A waterbed allows great relaxation, especially if we put sheepskins on it. It is a source of characteristic tactile stimuli (water rippling). NOTE: Caution should be exercised when using a vibrating mat/music base with participants with cardiac arrhythmias, pacemakers, epilepsy, and osteoporosis.

Ball pool – The pool is filled with colorful balls made of good quality hard plastic. They should not be less than 6 cm in diameter (otherwise there is a risk of swallowing). Playing in this dry pool, digging into the balls, "swimming" in them, "diving" – gives great joy especially to those with severe disabilities, as well as wheelchair users, the blind and children. The pool provides tactile, auditory (ball rustling), and kinesthetic stimulation (the possibility to change body position more easily). The colored balls are visually stimulating and also provide vestibular and proprioceptive stimulation. Some participants use the pool "in their own way", for example, they take balls out of it and arrange them into patterns on the floor. The pool can also be filled with clear plastic balls, then the light source is placed at the bottom of the pool (it can even be a simple optic fiber string). The ball pool should be softly lined and with a soft bottom. It is also important to pad the edges. The pool can be equipped with handles to facilitate entry and exit, steps, or a sloping platform. The area of the pool could be from two square meters to as much as several square meters – depending on the number of residents who will be in the pool at the same time. The depth of the pool should not be less than 60 cm (it makes it possible for adults to "bury" themselves in the balls).

Mirror cabin – Used primarily in Snoezelen rooms for children. The ceiling and walls are lined with safe (acrylic) mirrors. Recommended especially for children with disturbed laterality, with disturbed image and body schema. Useful for working on emotions and for making eye contact through mirrors (the therapist and the participants look at their reflections in the mirror).

Light-and-sound track – Used primarily in Snoezelen rooms for children. It consists of a floor panel and a wall panel. Pressing the floor panel tiles and wall panel buttons produces a sound and light effect. The movement becomes "visible" and "audible". This allows the participant to notice a cause-effect relationship, gives a sense of agency, supports hand-eye coordination. The panels can be pressed with the foot, hand, participant can also lie down on the floor panel.

Light-and-sound ladder – A device with microphones and a vertical screen which responds to the participant's voice by producing multi-colored stripes. Effects similar to the light-and-sound track (sense of agency, cause-and-effect relationship) can be achieved, but without motor involvement. Instead, the ladder activates people with aphasia or mutism, and is often used by speech therapists.

Musical furniture and instruments – Musical armchairs, musical couches, Orff instruments

Projectors – With solid and liquid disks. NOTE: For safety, the disk should rotate once per minute. Particular caution should be taken with people diagnosed/suspected of epilepsy.

Touch, smell, taste equipment – Usually made by therapists themselves (touch walls, touch paths, olfactory boxes, etc.).

2.2 THE PLACE OF SNOEZELEN WITHIN OCCUPATIONAL THERAPY

BETWEEN OCCUPATIONAL THERAPY AND SNOEZELEN

There are many interfaces between the Snoezelen method and Occupational Therapy. Both the theory and practice of these two approaches can be viewed from similar perspectives.

1. According to occupational therapy, every person is an 'occupational being', regardless of their age, health, level of functioning, talents, or limitations. To be born human is to be born to engage in occupation (the meaning of the term "occupation" in the context of occupational therapy is presented later in this chapter). Occupation is inscribed throughout the life of a person, from birth to death (Reilly 1962).

2. Snoezelen, on the other hand, reveals every person to be a 'sensory being' – likewise from birth to death. And as with 'occupational being', 'sensory being' remains valid as a category, regardless of an individual's age, health, or level of functioning. Even people in an apallic state (e.g., in a coma), as long as they are alive, remain sensory beings, receiving at least tactile stimuli (which is indicated above all by Andreas Froehlich's Basale Stimulation concept and the idea of somatic memory which he developed) (Froehlich 1991).

3. To be a sensory being means to be in contact with stimuli. And performing an activity (any activity) also means being in contact with stimuli. The scope of reception of stimuli and the type of activity undertaken depends on the level of an individual's fitness. Mary Reilly, mentor of occupational therapists around the world, states that "the activity, by providing various stimuli, promotes health, because the nervous system needs these stimuli to maintain the efficiency of sensory processes" (Misiorek, Janus, Kuśnierz, Bugaj, 2019: 12).

4. Characteristically, both occupational therapy and the Snoezelen method avoid setting a "minimum" level of fitness or functionality from which it is "worthwhile" involving the patient/client in sensory stimulation or occupation. Since both occupational and sensory activities can be read as fundamental anthropological categories, both occupational therapy and Snoezelen do not exclude any group of patients/clients from their range of influence. On the contrary, the development of theoretical models of occupational therapy clearly shows that even low-functioning patients/clients are not excluded from the occupational therapist's sphere of interest. An example is the CMOP-E model (Canadian Model of Occupational Performance and Engagement), in which a deliberate distinction is made between Occupational Performance and Occupational Engagement, thus allowing those with a significantly reduced level of functioning to derive satisfaction from

occupation and fulfill their need for occupation (Polatajko, Townsend, Craik, 2013). With Snoezelen, it is even more evident that the approach to each patient/client is thoroughly positive and inclusive. As we know, the very genesis of Snoezelen was associated with opposition to the therapeutic pessimism concerning those with profound and multiple disabilities. The development of Snoezelen practice and the present form of the method are also convincing evidence of the efficacy of multisensory stimulation even for people with the lowest level of functioning.

5. In occupational therapy, the decision rests with the patient/client, although it is the occupational therapist who, thanks to his/her relevant knowledge and skills, supports the patient/client in making the optimal decision in their situation. On the other hand, the Snoezelen method – thanks to its non-directive and task-free nature – creates ideal conditions for even the lowest functioning participant to make decisions (sometimes for the first time in their lives). Both the Snoezelen methodology and the Snoezelen room itself make it easier for each participant to undertake any chosen activity.

6. Both the occupational therapist and the therapist working in the Snoezelen room are often faced with a difficult task: i.e., to organize and conduct the therapy process in such a way as to meet the participant's needs (both in the occupational and sensory dimension), despite his/her low level of functioning (whether it be cognitive, motor, or communicative).

7. In Snoezelen, space is a therapeutic tool (in addition to having the function of communicating with the participant and building relationships with him). Similarly, in occupational therapy, appropriate adaptation of space is a basic therapeutic tool. Of course, no direct comparison can be made between an occupational therapist's adaptation of the space in the client's home (for example, in the bathroom) and the arrangement of the equipment in the Snoezelen room. It is more a question of drawing attention to the similarity between occupational therapy and the Snoezelen method in their regard for space as an important factor determining the effectiveness of interventions.

8. Representatives of various helping professions work in Snoezelen rooms. Snoezelen is open not only to different customer/patient groups but also to different professions. Each will bring their individual expertise there – whether they be a special pedagogue, psychologist, speech therapist, physiotherapist, etc. In light of this, the two people to whom we owe the first serious systematization of the method, which began with the purely spontaneous actions of volunteers, are, of course, Ad Verheul and Jan Hulsegge, the former of whom dealt with occupational therapy at the de Hartenberg center, while the latter was a music therapist. It seems that, especially at the beginning of Snoezelen, the most significant influences were occupational therapy and music therapy. Today we know that Snoezelen is perfectly suited to integrate a multitude of other therapeutic and pedagogical methods (for a detailed list see the section about thematic Snoezelen sessions, page 156). However, it is worth remembering that occupational therapy was of particular importance to the beginnings of Snoezelen (Smrokowska-Reichmann 2018).

THE KEY ASPECTS OF OCCUPATIONAL THERAPY

Occupational therapy is multidisciplinary, covering medical, social, and artistic issues (Misiorek 2019: 1). The pioneers of modern occupational therapy, who founded the National Society for the Promotion of Occupational Therapy in New York in 1917, represented such diverse fields as medicine, nursing, rehabilitation, social work, psychiatry, pedagogy, art, and architecture: "They had one thing in common – an extraordinary faith in the healing power of the occupation" (Misiorek, Janus, Kuśnierz, Bugaj 2019:5). Today, occupational therapy is understood both as science and art, and its aim is to enable people to perform activities, that is, to meet the need for occupation, with its positive impact on human health, well-being, and quality of life. Activity in occupational therapy is not only understood as work – the management of free time, leisure activities/pursuit of hobbies, the performance of the simplest activities of everyday life, self-service activities, etc. – all come under the category of occupation. The concept of occupation in the understanding of occupational therapy is an activity that is significant for the individual performing it for various reasons: "Occupation is a complex and multifaceted phenomenon that escapes unambiguous definitions. (...) Occupation gives human life a deeper dimension and meaning" (...) (Janus, 2016: 21).

As an occupational being, every human feels the need to be occupied and has the right to engage in an occupation. Again, it does not depend on age, fitness level, or health. Occupational therapy postulates fair access to occupation for all (i.e., occupational justice) and formulates four occupational rights, as follows:

- An Occupation should have meaning for a person and enrich them.
- Participation in an occupation is pro-development, pro-health, and pro-social integration.
- By choosing an occupation and participating in it, the individual builds autonomy.
- Participation in occupations typical for the community is beneficial to the individual. (Townsend, Wilcock 2004: 80)

Failure to satisfy occupational rights may result in negative phenomena characterized in occupational therapy as:

- **Occupational alienation** – "lack of positive identification of an individual with the community and lack of access to resources enabling them to perform meaningful activities."
- **Occupational deprivation** – "the prolonged state of exclusion of an individual from involvement in a given occupation due to factors that are not subject to the individual's control."
- **Occupational imbalance** – "both not being occupied and being over-occupied (overworked) at the expense of taking care of one's health and family."
- **Occupational marginalization** – "limiting the impact of an individual (on a micro scale) on his daily choices and decision-making related to the choice of occupation" (Janus 2018: 65).

It is obvious that such a broad understanding of occupation and postulation of access to occupation means that the work of occupational therapists is addressed not only to fit and healthy people (although such people are also equal recipients of occupational therapy), but

also (and often above all) to people with intellectual and physical disabilities, the mentally ill, the chronically ill, and people at risk of social exclusion for various reasons. The task of the occupational therapist is also to enable those with the greatest limitations to access and perform an activity.

It is impossible to consider occupational therapy without calling to mind the Person-Centered Practice approach and the achievements of Carl Rogers. The concept of client-centered therapy developed by this psychologist became the ideological foundation of occupational therapy. Carl Rogers considered building a relationship with the client based on understanding, sense of security, acceptance, and respect for the client as a condition for an effective therapeutic interaction. The therapist in Carl Rogers' approach acts in a non-directive manner, does not limit the client's independence, much less control him/her. The therapist and the client meet as equals on the common ground of their shared humanity. Instead of wearing the mask of expert, the therapist shows the client his authenticity, unconditional acceptance, and deep empathy (Gelso, Hayes 2005). According to Rogers, contact with the client based on relationality, affirming the subjectivity, dignity, and autonomy of the client can activate their potential for self-healing and self-realization. Another characteristic of PCP is the maximally individualized treatment of a particular client.

THE SNOEZELEN METHOD IN THE MIRROR OF OCCUPATIONAL THERAPY

Snoezelen can also be called a multidisciplinary method. It is conducted, as already indicated, by representatives of various helping professions, and, moreover, within Snoezelen, elements of various therapeutic methods can be used, such as the Montessori method, the Developmental Movement of Veronica Sherborne, bibliotherapy, autobiographical work, reminiscence therapy, thalassotherapy, art therapy, hortitherapy, basal stimulation, Jacobson training, eutony therapy, etc. Often, the Snoezelen room becomes the background for complex psychological and psychotherapeutic interactions (e.g., in psychiatry, psycho-oncology, care for seniors with dementia). Limiting the methodological layer of Snoezelen to eight principles (or indications) favors a multidisciplinary approach, since the eight principles only define certain boundary conditions and leave considerable space for initiative on the part of the therapist conducting the session. It need only be remembered that the non-directive and task-free approach always overrides all else, and that the slogan: "Nothing must be done, everything is allowed" should be clearly reflected in the practice of the Snoezelen session.

A Snoezelen session, contrary to common misconceptions, is not just (or even mainly) relaxation. The first part of the neologism Snoezelen, "Snuffelen" (sniff, investigate, explore), is first for a reason. As Ad Verheul emphasizes: "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 (…)" (Hulsegge, 2014: 28). Of course, the element of relaxation is also very important, and often a Snoezelen session is simply "doing nothing". But in both cases (i.e., regardless of whether there is

activity or passivity in the Snoezelen room) we are dealing here with occupation (even when it boils down to relaxation). This occupation, regardless of its nature, is not "killing time" or a pseudo-occupation, since following the Snoezelen principles means that it will always have meaning for the person who undertakes it and will positively impact this person. A Snoezelen session is task-free and non-directive, but that does not mean it is stripped of purpose or meaning. On the contrary, it is during the Snoezelen session that many breakthroughs and successes in the cognitive, communicative, emotional, and behavioral dimensions occur, which is caused by the fact that being in the Snoezelen room is an event full of meaning and value for the participants of the session, which brings Snoezelen very close to the approach of occupational therapy.

Snoezelen, like occupational therapies, demands access to sensory stimuli for everyone, regardless of health, age, or level of functioning. Like occupational therapy, Snoezelen is alert to the danger of stimuli incorrectly matched to an individual. The most dangerous, in the nomenclature of occupational therapy, are "sensory imbalance" (imbalance in the intensity and type of stimuli, ending in overstimulation or under-stimulation) and "sensory deprivation" (prolonged lack of contact with the appropriate range of stimuli, resulting from factors that are not under the control of the individual). In addition to such direct references, we can also say that, like occupational therapy, Snoezelen emphasizes the need to give each participant the right to choose and make decisions (embodied in two of the eight principles: the Opportunity for Choice, and the Opportunity to Set the Pace).

When we look at all the principles of Snoezelen from the perspective of occupational therapy, we find that we are dealing here the classic Carl Rogers approach, or Person-Centered Practice. In Snoezelen philosophy, as in Carl Rogers', the following is emphasized: treating the participant of the session as a partner and respecting his/her subjectivity and self-determination. As in Rogers' concept, the participant in the Snoezelen session is fully accepted and approved of by the therapist, while the therapist's empathy and authenticity create a relationship of trust between him/her and the client, contributing to the building of better communication. Along with its non-directive approach to the client and individualistic treatment, it is hardly surprising that even occupational therapists who come across the Snoezelen method for the first time immediately see the reflection of Carl Rogers' precepts in it.

"Establishing a therapeutic relationship is an essential foundation in conducting occupational therapy" (Janus 2018: 53). Without establishing a relationship with the participant, it is impossible to talk about a Snoezelen session, even in the best equipped Snoezelen room. It is not the equipment that ultimately holds the therapeutic potential of this method, but the contact and interaction with the participant in the form of relationships and sometimes even bonds.

In addition, many of the more detailed concepts of occupational therapy are reflected in the philosophy and practice of Snoezelen. Here are two distinct examples:

- **Enablement.** In occupational therapy, this means the process of enabling the client to perform an occupation by providing appropriate resources, adapting the environment,

etc. In Snoezelen, thanks to the appropriate use of sensory stimuli in a specially arranged space, the participant is able to become familiar with the environment and him/herself in this environment, to communicate, explore or rest. In the enablement process, in both occupational therapy and Snoezelen, the client is the partner and subject, not the object of therapy; the therapist walks next to, and sometimes behind, but never in front of him/her.

- **Occupational Performance and Occupational Engagement.** In occupational therapy, occupational performance means performing an occupation and being active, and occupational engagement means being engaged in an occupation, e.g., by merely observing the activity (thus, there are no specific effects of this involvement, e.g., due to the limited functionality of the client). In Snoezelen (where tasklessness is the basis), in addition to active exploration ("Snuffelen"), which is not task-oriented, there is relaxation ("Doezelen"), which is not passivity, but only another way of dealing with stimuli. From the perspective of an occupational therapist, it can be said that the name Snoezelen includes both the Performance component (Snuffelen) and the Engagement component (Doezelen). The idea of Occupational Engagement, in particular, is very close to the Snoezelen philosophy since very often it "consists in allowing [the client] to make choices, express the will and exercise control over at least some aspects of his/her life" (Misiorek 2018: 28).

Finally, the similarity between occupational therapy and the Snoezelen method is also confirmed by numerous research projects that have been published in journals from the field of occupational therapy.

In Poland, Snoezelen sessions are run not only by special pedagogues or psychologists, but also by occupational therapists. Commonly, they have graduated from colleges of occupational therapy with the title of occupational therapy instructor, but more and more often they are university graduates – i.e., fully qualified occupational therapists with a bachelor's or master's degree in the subject. The breakthrough related to the academization of occupational therapy in Poland began relatively recently. The first studies in the field of occupational therapy carried out in accordance with the standards adopted by WFOT (World Federation of Occupational Therapists) and ENOTHE (European Network of Occupational Therapy in Higher Education) were opened in 2012. As early as 2014, at the University of Physical Education in Kraków, the following subject appeared in the syllabus of first-degree studies of occupational therapy: "Snoezelen-World Experience Room", and a year later, at second degree studies, the subject: "Snoezelen as a method of occupational therapy." Occupational therapy instructors who have not graduated from higher education colleges and universities very often expand their knowledge of Snoezelen by participating in qualification courses conducted by ISNA-MSE Polska under the scientific patronage of the University of Physical Education in Krakow. The Science and Research Laboratory Snoezelen (World Experience Room), which is part of the Central Science and Research Laboratory at the University of Physical Education in Krakow, has been operating since 2018. The Laboratory has implemented a quality management system according to the international standard ISO 9001 (more on this subject, see p. 172).

As already mentioned in this chapter, one of the greatest challenges for an occupational therapist is to work effectively with groups of recipients whose cognitive performance is impaired for various reasons and to various extents. It is not easy to meet the occupational needs of a patient without knowledge of their specific cognitive ability. As we know, according to the theory of occupational therapy, every human being is an occupational being. However, how can we find a satisfactory and meaningful occupation, e.g., for a senior in late-stage dementia, a person with intellectual disabilities and at the same time mentally ill, a deaf-blind person, a low-functioning person with autism spectrum disorders, and so on? This is when the Snoezelen method comes to the aid of the occupational therapist, creating a context that builds interaction with people and objects, even in the case of low-functioning individuals. Appealing to the second fundamental anthropological trait – man as a sensory being – enables the realization of the first trait – man as an occupational being – in a way that, outside the Snoezelen room, would be difficult if not impossible to implement.

Below is a short extract from the work of an occupational therapist, Anna Cygler, MA, a graduate of occupational therapy at the University of Physical Education in Krakow, as an illustration.

The patient is a man, nearly 80 years old, with late-stage dementia. He lives in a nursing home. He does not speak in an articulate manner, is psychomotor hyperactive, reacts aggressively and auto-aggressively to attempts to make contact with him, as well as to the care activities undertaken with him. In this phase of dementia, the occupational therapist can no longer implement pro-cognitive activities such as brain training or reality orientation training. The application of the gerontological validation method according to Naomi Feil temporarily brings an intervention effect but has no long-term impact. In this situation, the therapist decides to offer the senior sessions in the Snoezelen room, combined with bibliotherapy. The Snoezelen room is properly arranged (comfortable places to sit, clear space, lighting to reduce the shadow effect – which often bothers seniors in late stages of dementia, with the risk of hallucinations). The choice of texts to be read is carefully thought out: short, simple, rhyming texts, targeting the senior's long-term memory. In the Snoezelen room, under the influence of the prepared stimuli, the senior calms down and relaxes. He takes a comfortable seat and listens to the texts read by the therapist. Such quarter-of-an-hour intervals of quiet sitting and listening are virtually impossible to achieve outside the Snoezelen room (the senior only sits down to eat and lies down only when exhausted from constant walking, and then most often falls asleep). In the Snoezelen room, the patient does not show the problematic behaviors that characterize him every day, he makes frequent eye contact with the therapist and even smiles. Outside the Snoezelen room, attempts to read to him were unsuccessful, both in his own room and in the day room.

The therapist predicted that the Snoezelen room might have such a calming effect, so she was not surprised by the reaction from the senior. Nevertheless, one day a situation occurred that she had not expected. Namely, the senior came up to her in the corridor and handed over a piece of printed paper (a receipt of some kind he had probably taken out of the litter bin). The senior then pointed towards the Snoezelen room door, vocalizing: "Mmmm, Mmm. Tammm, tammm" (there, there). Apparently, he was insisting that the therapist go with him to the Snoezelen room and read to him there.

This is an unusual occurrence for several reasons: 1. despite late-stage dementia, the senior's short-term memory functioned as so: "we recently read together in this room"; 2. despite late-stage dementia, the senior correctly associated objects with the activity (a printed sheet of paper – similar to the book read by the therapist); 3. despite late-stage dementia, the senior took a logical initiative (he cannot express himself in an articulated manner, so he vocalizes and uses non-verbal communication); 4. despite late-stage dementia, the senior indicated the need for an activity that was meaningful and satisfying for him. Given the trajectory of dementia, such responses from the senior may well have come as a surprise to the therapist.

Based on the author's conversation with an occupational therapist, Anna Cygler, who led the session.

2.2.1 SNOEZELEN SESSIONS FROM THE PERSPECTIVE OF OCCUPATIONAL THERAPY

FREE SESSIONS VS THEMATIC/SCENARIO SESSIONS

Once we have a properly arranged the Snoezelen room with equipment selected for the participant's needs and used accordingly, we should think about the method of conducting the session.

Generally, we can choose between two ways of running a Snoezelen session:

- Free sessions.
- Thematic/scenario sessions.

The choice of how the session is conducted depends on the needs of the participant. Some participants prefer free sessions. For others, after a while, free sessions become too monotonous and there is a need for more specific and focused Snoezelen activities. Another possibility available to the therapist is to allocate parts of the same session to thematic activities and parts to a free session (for example, at the end of the session as a relaxation phase). It is also possible to alternate between casual sessions and thematic/scenario sessions.

Free sessions involve being in the Snoezelen room without a pre-planned schedule. The participant freely uses the equipment, while the therapist, observing his/her reactions and telegraphed needs, turns individual devices on or off, and changes the intensity and type of stimuli emitted by them. Free sessions are usually held with background music, but the participant may also prefer silence or conversation with the therapist. They may also include a sensory narrative told by the therapist or visualizations.

Thematic/scenario sessions are a targeted course of activities in the Snoezelen room (however, they cannot be task-oriented, see further below). They work well for different age groups of participants, from children to seniors. They can take the form of an extensive scenario, but on other occasions a few sentences may be sufficient to constitute the framework of the session.

An example of an excerpt from a free session

Leader of the session: occupational therapist Ilona Michałowska-Olechnowicz.
Session participant: a female senior living in the nursing home for the elderly in Borne Sulinowo.

The therapist and the participant are together on the waterbed. The participant lies comfortably on her back, while the therapist is sitting next to her and massaging her hand with a massage ball. Soft music is playing in the background.
Therapist: *You're pretty, Anielko* (the participant's diminutive), *do you know that?*
Participant (in disbelief): *Me? Pretty?*
Therapist: *You have beautiful eyes. And you have a noble face, you have noble features.*

The participant spontaneously draws the therapist to her, hugs her by the neck and kisses her cheek loudly.
Therapist: *And me? How do I look?*
Participant: *And you are beautiful!*
Therapist: *You are a dear Anielko, do you know that? You are really a dear.*

After a while, the participant starts reciting a poem about an orphaned child who was taken in by strangers. At first, she stutters, searching for words, but as she continues to speak, she recites more and more fluently and with more and more feeling.
Therapist (after the participant finishes the recitation): *Bravo, Anielko!*
Participant (in disbelief): *Bravo?*
Therapist: I love this poem. *The way you recite it. I love it.*

Based on the video recording of the session, made available to the author by Krystyna Berdyńska MA, director of the Nursing Home for the Elderly in Borne Sulinowo.

Examples of sensory narratives and thematic sessions/scenario sessions prepared by students of Occupational Therapy at University of Physical Education in Kraków can be found on page 175.

Both at the Department of Occupational Therapy at the University of Physical Education in Krakow and at the ISNA-MSE Polska, we recommend that when preparing thematic/scenario sessions in the Snoezelen room, one should observe the following three main points:

1. **Arrangement of space**. Before the arrival of the session participant, the therapist prepares the Snoezelen room according to the theme he/she has planned for the day's session. This means, for example, bringing appropriate accessories (e.g., flowers, moss, hay, leaves, bark) for a session with the theme of "forest", or lighting the room appropriately (e.g., in yellow and blue colors) for a session with the theme of "sea").
2. **Use of equipment.** The therapist utilizes the fact that the sessions take place in the Snoezelen room and makes use of the equipment that is a permanent feature of Snoezelen room (e.g., in the "forest" session, the therapist might place leaves under the panels of the light-and-sound track so that when the track is walked on, the shapes of the leaves are illuminated; in the "sea" session, the water bed will strengthen the perception of a sensory narrative when seniors are lying on it, or it will turn into "ocean waves", when the children "float" on a mattress put on the water bed to imitate a boat).
3. **Addressing all senses**. Since Snoezelen is a multisensory method, the therapist's task is to prepare a selection of stimuli for all senses. Non-disabled people focus on visual stimuli. However, many participants of the Snoezelen session, while exploring this space, focus more on touching, listening, or even smelling and tasting. Therefore, after planning the thematic/scenario session, it is worth checking if the therapist has not neglected any of the senses. During the session, will the participant find something attractive for their sight, hearing, touch, superficial and proprioceptive sensibility, smell, and taste? Of course, this does not mean that during the session the participant will use everything that the therapist has prepared for them. Nevertheless, a range of stimuli for every sense must be ready in order not only to meet Snoezelen's multisensory requirements, but also to fully implement the Opportunity for Choice principle.

In both free sessions and thematic/scenario sessions, elements of other methods can be used. These are tools that are well known to occupational therapists and are an integral part of their professional repertoire. These include, for example:

- the Montessori method
- the Montessori method for seniors with dementia
- the Development Movement of Veronica Sherborne
- music therapy
- bibliotherapy
- Andreas Fröhlich's Basal Stimulation
- hand therapy
- hortitherapy, thalassotherapy, silvotherapy

- drama
- dance movement therapy
- projection methods
- animal therapy (pet-facilitated therapy)
- eutonic exercises
- Jacobson training
- Schulz training
- sensoplasty

THE VOICE OF THE THERAPIST IN FREE AND THEMATIC SESSIONS

Conducting both free and thematic session requires the therapist to pay special attention to hi/her voice. The Snoezelen room creates ideal conditions for visualization, the development of imagination, and the following of sensory narratives. This is why it is important for the therapist to have the requisite voice skills. This means, primarily, being able to produce the right timbre and appropriate modulation of voice, but also the appropriate use of the voice (i.e., at the right moment and according to the particular type of participant).

Preparation of the therapist for a Snoezelen session can and should include a practical vocal workshop. This might be done, for example, in the following ways:

- reading a sentence in such a way as to express different emotional states,
- reading aloud stories for adults/children, while the therapist pays attention to the emotions the text evokes in him/herself,
- reading the text aloud in the presence of a listener and asking them for feedback,
- recording the text as the therapist reads and listening critically to the recording,
- marking words relating to individual senses in the text in different colors,
- selecting one sensory perception channel for each day and writing down all the words corresponding to it on that day.

Examples of texts that sensitize the therapist to the issue of sensory preference
Theme: "Visit to St. Mary's Church in Kraków"

Sensory Preference: SIGHT

Upon entering the Basilica, you can immediately see the wonderful play of light penetrating the church through the colorful stained-glass windows. My gaze rises of its own accord. I admire the lofty arches of the Gothic vault. The interior looks most beautiful in the early summer afternoon, when the sun's rays penetrate all the way to the floor, throwing colorful shadows onto it. I sit in the aisle, from where I can admire the architectural harmony and the perfect proportions of the interior. I also like to look at details – carved stalls, paintings hung inside chapels,

massive candlesticks. All colors and their shades complement and permeate each other. Depending on the lighting, these views change their character. For example, in daylight they are dignified, but also filled with energy. In turn, in the evening, the light of bent, gilded candelabra motivates you to contemplate, to fix your eyes on a single detail, for example a darkened wooden sculpture...

Sensory Preference: HEARING

The gates of the Basilica close behind me with a muffled thud. Now I hear the silence. It is a specific silence. Not austere, not empty – but filled with soft whispers and footsteps. Suddenly the organ sounds. I don't know yet if the organist is just practicing or if the service will start in a few moments. I walk to the front of the Basilica. I hear my footsteps on the marble floor. I can hear a characteristic dry noise – this is the altar of Veit Stoss being opened. Behind me, I hear muffled, admiring voices in different languages...

Sensory Preference: TOUCH

I hold the cold door handle of the Basilica in my hand. I press it and I'm already inside. I touch the wall knowing that these bricks are several hundred years old. I kneel on the floor and touch it with my hands as well. It is warm from the sun in this place. I walk across the nave feeling the hardness and smoothness of the floor under my feet. I sit on the upper level of the double-row bench. To get there, I had to climb a few steps and open the doors that enclose the bench on each side. It's an interesting experience. Wood, pleasant to the touch, surrounds me on all sides. The hardness doesn't bother me. I feel solid support as I sit there. My back and head meet the high back of the bench. I turn page after page of my guide to the Basilica. The paper is smooth and cool. An old lady sits next to me. She gives me her rough hand in greeting...

Based on the author's own materials

The voice can be a real therapeutic tool during a Snoezelen session when we use it:

- as a catalyst (of sensory experiences, emotional reactions)
- as an enhancement (of multisensory stimulation, impressions of the session participant)

Key elements of using the voice in the Snoezelen Room

- height
- intensity
- pace
- pauses/silence
- timbre
- modulation
- articulation

OBSERVING NON-DIRECTIVITY OF SNOEZELEN WHILE USING VOICE DURING SESSIONS

It is extremely important to remember that the non-directivity essential for the Snoezelen method should also be reflected in the therapist's speaking to the participant (what the therapist says and in what manner). Therefore, during the session, the therapist tries to limit the issuing of commands and use of the word "NO". Non-directive communication with the session participant is achieved by:

- using the subjunctive instead of the imperative with the participant (e.g., "Maybe you would like to turn on the water column yourself?", not: "Turn on the water column yourself!")
- using the first-person plural instead of the second person singular (e.g., "Let's lie down on the waterbed now", not "Lie down on the waterbed now!")
- asking the participant questions instead of giving orders (e.g., "Would you like to check what's in that touch pocket?", not "Check what's in that touch pocket!")
- noticing and supporting the participant's own initiative
- withdrawing at the right moments (when the participant wants to be alone for a while with the world of Snoezelen)
- conducting a monologue when the participant requires encouragement/is non-verbal/ needs to explore the Snoezelen space by observing the actions and statements of the therapist (e.g., "I will now walk behind this curtain of optical fibers, I wonder how our Snoezelen room will be seen through these optic fibers").

FOLLOWING THE PARTICIPANT IN THEMATIC/SCENARIO SESSIONS

The eight Snoezelen principles must be followed in both free and thematic/scenario sessions. In the case of thematic/scenario sessions the greatest difficulty may be to observe the principles of the Opportunity for Choice and Opportunity to Set the Pace, due to the sequence of activities planned by the therapist in the Snoezelen room. Nevertheless, the thematic/scenario sessions should not stop the therapist following the participant's lead, as expressed in the two aforementioned principles. Therefore, conducting thematic/scenario sessions requires the therapist not only to prepare in advance, but also to react quickly and flexibly during the session itself – as shown in the examples below.

- **A thematic session with a highly functioning little girl with autism.** The therapist had planned a thematic session about the cosmos (space). She had prepared, among other things, silver foil, felt-tip pens, materials for sensory arts and multicolored balls, which were to symbolize the planets. However, the girl, after entering the Snoezelen room, at the sight of the multicolored balls, exclaimed: "Oh, these are emojis!" She was impressed by an animated film about emoticons in various forms. The therapist, wanting to remain faithful to the principles of Snoezelen, did not try to redirect the participant back to the subject of the cosmos, but followed her lead, transforming the session into a session about emotions (among others, they assigned emotions to individual colors of balls, hid

the balls/emotions in various places in the Snoezelen room and found them, associated individual balls/emotions with different equipment in the Snoezelen room and their different actions, etc.). The topic of the cosmos was postponed but it was later realized in a different session in the Snoezelen room.

- **A thematic session with a group of three seniors in the early stages of dementia.** The therapist had planned a session based on reminiscence work. Seniors were to recall their memories of walks in the forest in autumn. The therapist prepared various materials: multicolored leaves fallen from trees, fir cones, moss, mushrooms. However, instead of talking about the autumn forest, the seniors fixed on the topic of mushrooms (since in the autumn mushrooms can be found and picked in the forest). The conversation revolved around the various recipes for making mushroom dishes, then smoothly progressed towards recalling family celebrations and the dishes that were prepared for these meetings. Instead of leading the conversation back towards autumn in the forest, the therapist encouraged the reminiscences selected by the seniors. The mushrooms the therapist had brought served as a material not only for tactile sensations, but also for olfactory and taste sensations. The remaining tactile materials prepared were used in later sessions, when the subject of the forest was reintroduced and, this time, attracted the interest of the seniors.

In both examples, the initiative of the participants was used in a therapeutic way. Dealing with the subject of emotions benefited the girl with autism (who always had difficulty in correctly identifying and naming individual emotions). Dealing with culinary and family memories benefited the seniors (who moved in the circle of long-term memory (which is spared longest by dementia), became verbally and cognitively activated, and experienced a sense of community).

2.3 CASE STUDIES – SNOEZELEN SESSIONS CONDUCTED BY OCCUPATIONAL THERAPISTS

The two case studies presented below were consciously selected from the therapeutic practice of one institution. This facility is a nursing home (or social welfare home) for chronically mentally ill and mentally disabled adults in Płaza near Kraków (PDPS im. Adama Starzeńskiego w Płazie). About 100–110 people live in the facility. Among the residents, there are people at different levels of functioning and with different diagnoses. Some residents are both chronically mentally ill and intellectually disabled. In addition to medical care, the following therapeutic options are available to residents: free time organization (embroidery, art therapy, theater therapy, walkers club), sensorimotor therapy, physical rehabilitation, music therapy, hortitherapy, hippotherapy – and, finally, the Snoezelen method.

The facility has a spacious Snoezelen room (about 40 square meters), equipped with: a waterbed, an island of water columns, a double rocking seat, an island for lying, a fiber optic waterfall, a projector, and an aromatherapy lamp. In accordance with the needs of this group of participants, the Snoezelen room here has an ascetic sensory character, and the entire space is organized in a way that is clear to the participants. Snoezelen sessions at this facility are conducted by occupational therapists.

The presented case studies concern two residents. They are of a similar age, but otherwise differ in many aspects, in particular, the level of functioning and diagnosis. Snoezelen sessions are effective and beneficial for both higher and lower functioning individuals. The case studies also clearly show the double effect of the Snoezelen method (both calming and activating), which are “turned on” depending on the needs of the participants. It is worth paying attention to the approach of the occupational therapists, which is very professional and consistent with the essence of the Snoezelen method.

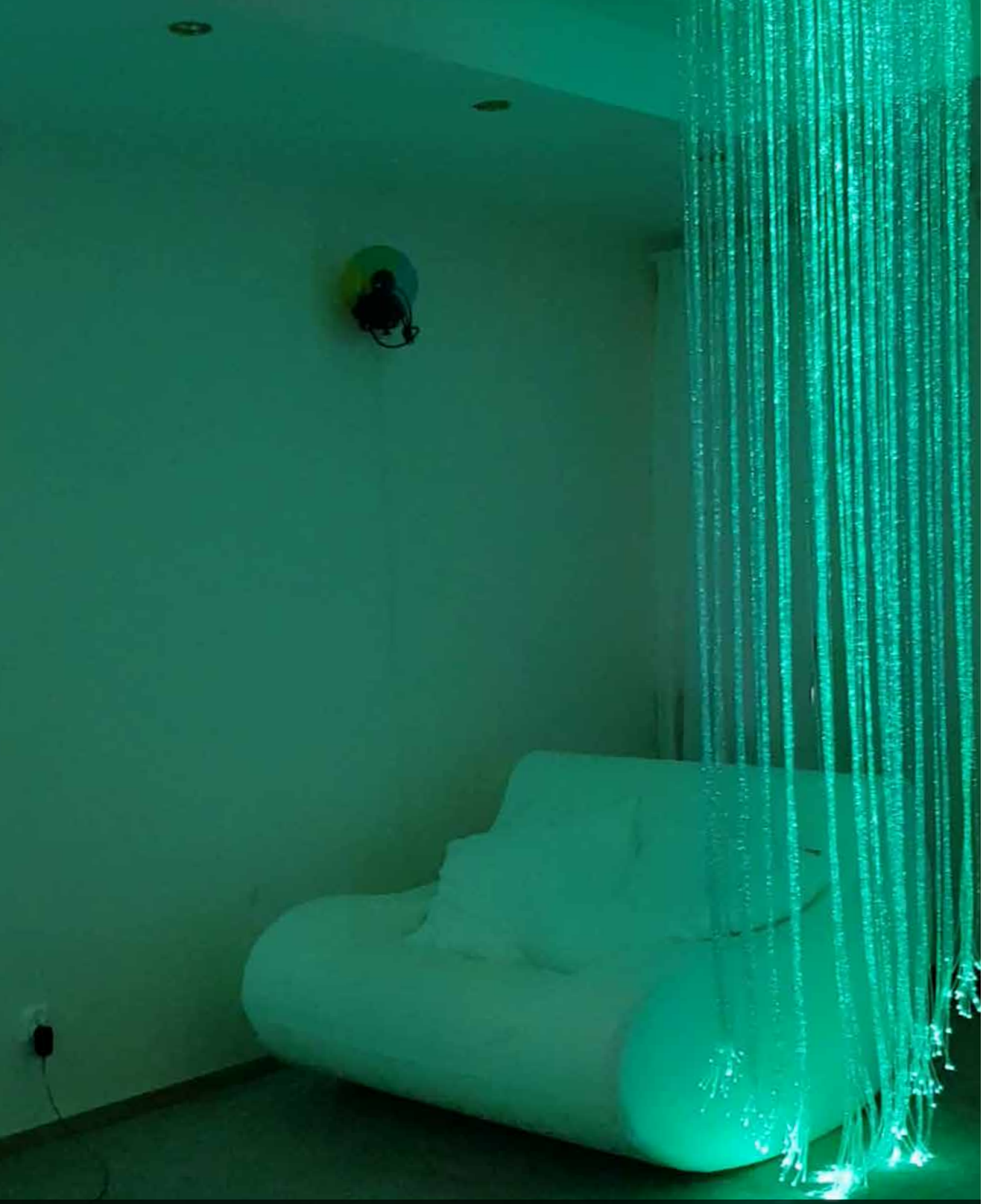


Fig. 45: White Snoezelen in PDPS in Płaza (facility for adults and seniors with mental disabilities and psychiatric disorders)

Fig. 46: White Snoezelen in PDPS Płaza (facility for adults and seniors with mental disabilities and psychiatric disorders)

CASE STUDY 1
Krystyna K.

Age: 66.
Education: incomplete primary.
Marital status: divorced.
Place of residence: an orphanage, followed by independent living, then two psychiatric hospitals, and finally, a nursing home for the chronically mentally ill and mentally disabled.
Contact with family: she does not keep in contact, except for the occasional exchange of postcards with a cousin.
Legal status: has full rights.
Source of income: pension.
Stimulants: none used.

Barthel Scale: The patient is independent when eating, moving around, maintaining personal hygiene, using the toilet, washing and bathing, climbing and descending stairs, dressing and undressing, and controlling stool/urine.

IADL – The patient can, with some assistance: use the phone, reach places beyond walking distance, go shopping for groceries, and prepare meals on her own; and without assistance: do household chores, and wash her clothes. She cannot manage money on her own.

Medical diagnosis: Recurrent dermatitis, recurrent depressive disorder, mild mental retardation.

Psychological diagnosis: Mild mental retardation, decreased visual-motor functions. Acquired cognitive decline. Disturbances in spatial orientation and decrease in mental performance, and reduced ability to plan and think regarding visual-spatial material. Her direct auditory memory capacity is very low. Slow pace of visual-motor learning. Slow pace of work. Attention processes in terms of persistence, metastasis, and selectivity are disturbed. There are disorders of memory functions, concentration, attention depletion, memory gaps, and perseveration. Mood swings, with a tendency to focus on herself and her own needs and emotions.

Pedagogical diagnosis: The patient has low self-esteem. She considers herself wronged. She is reconciled with her situation regarding her stay in the facility, and lives according to a simplified scheme. She is not aware of her strengths – instead focusing on possible ailments and diseases. She is resistant to proposed changes, and at the same time seeks contact in order to attract attention (fixed schematic behavior). She has a great need for acceptance and intimacy – without personal reference. Suggestions for work: balancing of duties and rest (preferably associated with moderate movement in a small group); proposal of a variety of activities (according to the selection one-out-of-two method), one-on-one conversations – supporting the development of autonomy; entrusting of tasks to be performed in a pair, in a small group (with support in the organization and selection of people) – learning to cooperate; recognizing needs, focusing on the possibility of achieving goals; developing of interests around music, singing and dancing (people, the world); guided conversations (to get out of the pattern of thinking about people).

Physiotherapeutic diagnosis: The patient is physically fit, performs all activities of everyday life herself, and does not require rehabilitation exercises. Longer walks and hikes are recommended.

Before the introduction of Snoezelen sessions to the weekly program

Ms. Krystyna is hyperactive, always looking for something to do until she exhausts her strength (e.g., she demands that she be allowed to shake carpets, wash floors, sweep the entire building). Screaming, tearful, demanding constant attention from the staff. In order to draw attention to herself, she carries out self-mutilation (she scratches herself, e.g., at injection sites; hits the wall with her hand or leg; falls over), tears at her clothes while wearing them, reports pain (after taking a placebo, the symptoms disappear). Aggressive towards fellow residents (verbal aggression and fights).

After introducing the Snoezelen sessions to the weekly program

Session 1 – She enters the room shyly, is not very talkative, asks if she can sit on a pouf in an armchair.

Session 2 and Session 3 – She tries out various pieces of equipment, looks for a place for herself, intrigued, observes her surroundings in silence.

Session 4 – She wants to come to the Snoezelen room on her own initiative, hugs the columns.

From Session 5 onwards – Sessions are run according to the schedule defined by Ms. Krystyna herself. She develops a sense of security, comfort, and peace. Ms. Krystyna gradually opens up to contact with the therapist, says that sessions in the Snoezelen room calm her down and make her feel happy. She discloses stories from her past and feels very comfortable in the Snoezelen room.

The sessions are usually 1:1, but sometimes, besides Ms. Krystyna, there are other participants in the Snoezelen room. Unusually, Ms. Krystyna behaves in a calm, even polite manner towards other participants in the room, to the extent that she gives up a more comfortable place to other participants.

COMMENT – based on the author's interview with occupational therapists conducting Snoezelen sessions (Renata Bartnik MA and Urszula Żmudzińska PhD)

Ms. Krystyna came to the Snoezelen room as if she were going to church: calm, peaceful, quiet, relaxed facial features, calm voice – as if she were a different person, not Krystyna! She spoke very little, but she needed the therapist's presence. Favorite equipment: a waterbed and the island of columns. Lying on the waterbed, she did not fall asleep, but maintained eye contact with the therapist. Then, with a gesture, she invited the therapist to lie down next to her. Usually, they held hands. Often, Krystyna would then begin to speak, but her statements also did not resemble her typical loud style of speaking. The therapist perceived these statements to be reflective, sometimes even philosophical. They concerned general matters, e.g., the passage of time, but also Ms. Krystyna's personal memories (about her family, husband, child). These memories were sometimes difficult, but Krystyna gave the impression that this was why she needed to express them. Her statements were not accompanied by low mood or negative emotions. Krystyna spoke calmly, with a relaxed face. She often stated that she felt good in the Snoezelen room.

Her second favorite place, after the waterbed, was the island of water columns. Ms. Krystyna sat there often and for a long time. She looked at herself in the mirror and also touched and stroked the water columns, feeling their vibrations.

She expressed specific preferences: e.g., regarding the choice of music or the color of optic fibers or water column. To the therapist's surprise, she often chose red, but contrary to what might be expected, the color did not stimulate her, but calmed her down and relaxed her.

After the session ended, Ms. Krystyna remained calm and silent for some time, did not become hyperactive, did not commit self-mutilation, and did not start arguments. She never had to be persuaded to come to the Snoezelen room – on the contrary, she made sure not to miss any of the scheduled sessions.

Sessions were held once a week and lasted one hour. They were always free sessions, but after some time Ms. Krystyna herself worked out a certain pattern of session, which she always adhered to. During the first sessions, Ms. Krystyna was uncertain and intimidated. She asked if she could sit, for example, on a pouf or the rocking seat. As time passed, during the following sessions, she explored the Snoezelen room more boldly and became familiar with the equipment. Clearly intrigued, she carefully observed her surroundings. Finally, came the stage in which she had gotten used to the Snoezelen room completely and accepted it as a familiar place that gave her a sense of security. The following pattern then became established: 1. she used the waterbed, as described above – often in the company of the therapist, often while reflecting and recalling the past; 2. she used the island of water columns – looking at herself in the mirror, feeling the vibrations, not only with her hands but with her whole body, choosing a color; 3. she selected music and listened.

CASE STUDY 2
Krystian R.

Age: 60 years.
Length of residence: in the facility since 2005.
Contact with family: none.
Source of income: pension.
Stimulants: none used.

Diagnosis: Severe intellectual disability, blind.

Motor development: The patient moves with the help of others. He is not very active, most often remaining in a sitting position. Low manual dexterity.

Emotional development: Unstable, has mood swings, screams in stressful situations. When he hears loud sounds, he covers his ears. When agitated, his body tenses, stiffens, he stretches out his hands, clenches his teeth, changes facial expression.

Independence and self-care: The patient eats meals and goes to and uses the bathroom with the help of others. Being blind, he needs help with basic activities of everyday life.

Perception: Touch, taste, hearing – normal; balance – imperfect; sight – blind.

Cognitive sphere: The patient does not make contact with others and sometimes

behaves aggressively. He is not mobile, is not active, does not read or write, and has never attended school.

Contact and communication: The patient understands certain commands (e.g., to go to the toilet). He does not speak but makes inarticulate sounds.

Preferences: The patient will not part with a rabbit mascot. He feels safe with it. His significant people are Mr. Krzysztof, a roommate, who leads the patients for meals and walks (the patient feels safe and at peace with Mr. Krzysztof); Ms. Ania, with whom the patient sits at the table in the dining room and who helps him with meals.

Unusual behavior: waving hands, clapping when excited.

Before the introduction of Snoezelen classes to the weekly program

Contact with Mr. Krystian was very difficult. He did not want to cooperate, and his participation in any activity offered to him was passive. Mr. Krystian was often aggressive, he isolated himself from the environment, admitting only his significant people. His lack of sense of security resulted in frequent screaming, aggression, and self-aggression. Mr. Krystian did not communicate verbally. He was very resistant and unresponsive to the repeated efforts of various therapists.

After introducing the Snoezelen sessions to the weekly program

Mr. Krystian participated in individual sessions in the Snoezelen room once or twice a week (his health condition allowing). A very important factor contributing to the fulfillment of expectations was the fact that the Snoezelen room is located at a distance from the residential part of the facility (which can be quite noisy during the day), the floor of the room is lined with thick carpeting, pleasant to the feet; the furniture is of appropriate size, comfortable, and upholstered with imitation leather, pleasant to touch. All such aspects of the Snoezelen room were accepted and welcomed by the participant.

For Mr. Krystian, touch was of great importance. In addition, isolation from everyday noises facilitated his concentration, which continued to improve with subsequent sessions. The pleasant to touch surfaces and appropriately selected music favored relaxation, reduced tension, and calmed him.

A large heavy (and thus safe) rocking chair (rocked by the therapist while the patient sat receiving gentle vestibular stimulation) became his favorite piece of equipment. A hand massage with a soft brush was used if Mr. Krystian accepted it and did not withdraw his hand. After each session, positive effects were noticeable – his facial features softened, and Mr. Krystian seemed to be calmer and more satisfied. The therapist who conducted the sessions with the participant was known to him, and Mr. Krystian showed positive animation when the therapist came for him and took him to the session.

In the opinion of the other caregivers, the sessions in the Snoezelen room always had a positive impact on the functioning of Mr. Krystian outside the Snoezelen room. He was clearly calmer and happier. Aggressive behaviors subsided; self-stimulation behaviors decreased. There were also moments of greater concentration and more frequent communication attempts, as well as calm and anxiety-free reactions to the touch of the caregiver. Everyday noise provoked less acute reaction than before. These were very significant changes that were important both for the Mr. Krystian and the staff, who were

happy with the improvement in the patient's functioning. The most important aspect of the Snoezelen sessions was the increased quality of life of the participant.

COMMENT based on the author's interview with occupational therapists conducting Snoezelen sessions (Renata Bartnik MA and Urszula Żmudzińska PhD)

Mr. Krystian agreed to come to the first session only when he was brought by a significant person who stayed in the Snoezelen room with him during the session. Krystian brought a rabbit mascot, which he always carried, and which gave him a sense of security. He was afraid of the waterbed. The first session finished after ten minutes. However, even in the first session there were no self-stimulating and self-aggressive actions, which occurred very often outside the Snoezelen room. Gradually, the sessions extended to 30 minutes.

Mr. Krystian felt very comfortable sitting on the island of water columns in a stable position. He enjoyed the vibrations. In addition, despite his lack of sight, he maintained a sense of light, which he made use of when approaching the columns. In subsequent sessions, he began to put aside his rabbit mascot, and instead focused on manipulating the optic fibers. He listened to the music. He began to vocalize and at the same time his intonation changed so that it seemed as if he were asking questions or expressing joy. After some time in the session, he began to form articulated words, like "Mama".

After a certain point, a significant person no longer needed to accompany Mr. Krystian for the whole session in the Snoezelen room, only bringing him to the room. Soon, even that was unnecessary – Mr. Krystian would go to the room alone with the therapist.

During the session, a clear easing of muscle tension, relaxation of stiff posture, and softening of facial expression were observed.

Over time, Mr. Krystian began to explore the room on his own and try various pieces of equipment. One day he lay down on the waterbed on his own initiative.

Regular visits to the Snoezelen room also produced benefits in other areas – Mr. Krystian was more active during other therapies, he signaled his needs not by shouting, but verbally (e.g., by saying "bread" when he felt hungry). He stopped isolating himself, started seeking contact with others (previously he stayed in his room all the time and allowed only his roommate to contact him). The Snoezelen room was also used in interventions, e.g., when Krystian became restless and agitated as a result of a change in weather, the Snoezelen room leveled his mood.

The sessions were initially based on listening to music, then tactile stimulation was added (using optical fibers, balls, crushing balls). Mr. Krystian began to react better to being touched, allowing such contact from others. While listening to music, he began to clap, he became interested in his own hands, and then also in the hands of the therapist. Then he directed his interest and explorations to his feet – first his own, then the therapist's. Even a form of joking/sense of humor was evident in Mr. Krystian's behavior – grabbing the therapist's legs/arms with a playful smile before releasing them.

No session was interrupted or disturbed by shouting etc.

2.4 CURRICULUM FOR SNOEZELEN AT THE UNIVERSITY OF PHYSICAL EDUCATION IN KRAKÓW

In Poland, due to clear relationships and points in common between modern occupational therapy and the Snoezelen method (see page 147), it was decided to include the subject of Snoezelen in the syllabus of first (bachelor) and second (master) degree studies in occupational therapy. Modern occupational therapy, taught in accordance with WFOT and COTEC guidelines, is taught in Poland at Universities of Physical Education, which constitute a special group of higher education institutions. These Universities conduct teaching and research in medical and health sciences, within the discipline of physical culture sciences. An integral part of each University of Physical Education is physiotherapy and, currently, also occupational therapy.

The Snoezelen method as an academic subject has been fully implemented by the University of Physical Education in Kraków, where Snoezelen is a compulsory subject in first and second degree studies in the department of occupational therapy. Gradually, the University of Physical Education in Kraków has been followed by other Universities from this group – for example, at the University of Physical Education in Warsaw, Snoezelen is part of the syllabus of the subject: "special methods". The leadership of the University of Physical Education, Kraków in the academization of the Snoezelen method might be explained by the fact that Agnieszka Smrokowska-Reichmann PhD, the precursor of the Snoezelen method in Poland, is employed at this University as an assistant professor.

SNOEZELEN AS A COMPULSORY SUBJECT IN FIRST-DEGREE (BACHELOR) STUDIES IN OCCUPATIONAL THERAPY

In first degree (bachelor) studies in occupational therapy, the subject is known as "Snoezelen – World Experience Room" and lasts for one semester. It is also offered in English as part of the Erasmus + program, and for Erasmus + students the name is: "Controlled Multisensory Environment – Snoezelen Room" (for more information about Snoezelen in the Erasmus+ program see p. 182). The main objectives of the course are to discuss the theoretical foundations of the Snoezelen method, to relate them to therapeutic practice, and to correctly shape the conduct and actions of occupational therapists during Snoezelen sessions. The subject is divided into lectures (28 hours) and classes in clinical groups, i.e., a maximum of eight students (14 hours). The following issues are explored during lectures:

- What is the origin and essence of the Snoezelen method?
- Who is the Snoezelen method for?
- How should the eight Snoezelen Principles be understood (holistic and complementary)?

- What is multisensory stimulation in a Snoezelen room and what are the relationships between multisensory simulation and communication with the recipient of the Snoezelen method?
- What are the similarities and differences between Sensory Integration therapy and the Snoezelen method?
- How should a Snoezelen room be arranged, what devices are necessary, and how should they be used?
- What forms can Snoezelen sessions take (individually/in groups, freely/thematically/by scenario)?
- What are the possible ways of keeping records of activities in the Snoezelen room?
- Which mistakes when conducting Snoezelen sessions and arranging the Snoezelen room should be avoided?

Classes are conducted in clinical groups (6–8 students) in Snoezelen rooms belonging to the University of Physical Education in Kraków.

- In first degree studies (bachelor), the classes consist of practical learning about the function and use of equipment in various areas of multisensory stimulation and an introduction to various forms of Snoezelen sessions (free-form activities, thematic/scenario-based activities).
- Students learn about the possibilities offered in the Snoezelen room not only by high-tech devices, but also by Orff instruments, music furniture, the simplest taste or smell stimuli.
- Students also adopt the role of participants with visual impairments to experience the environment of the Snoezelen room from their perspective.
- Tasks include the preparation of session plans for two groups of participants of different age and ability.
- Another task is to handcraft aids/accessories that can be used in Snoezelen sessions.
- Students also make plans of two Snoezelen rooms – one correctly and the other incorrectly designed.

SNOEZELEN AS A COMPULSORY SUBJECT IN SECOND-DEGREE STUDIES IN OCCUPATIONAL THERAPY

In second degree (master) studies in occupational therapy, the subject of Snoezelen is known as: “Snoezelen as a method of occupational therapy” and also lasts one semester. If necessary, the course can also be conducted in English. The main aim of the course is to discuss the application of Snoezelen with regard to different groups of participants, to discuss the possible forms of Snoezelen outside the Snoezelen room, to show the relationship between psychomotorics and the Snoezelen method, and to look at the Snoezelen method critically. As in first degree studies, the subject is divided into lectures (28 hours) and classes (14 hours) in clinical groups (with a maximum of eight students). The following issues are explored inlectures:

- Application of the Snoezelen method with cognitively able seniors and seniors with dementia.
- Application of the Snoezelen method with healthy children and with traumatized children.
- Application of the Snoezelen method with people with autism spectrum disorders.
- Application of the Snoezelen method with people with mental disorders.
- The place of the Snoezelen method in psycho-oncology.
- The Snoezelen method outside the Snoezelen room.
- The Snoezelen method and psycho-motorics.
- Project: the arrangement of a Snoezelen room.
- Criticism of the Snoezelen method.

As in first degree studies, classes for second degree students are held in both Snoezelen rooms at the University of Physical Education, Kraków.

- One of the tasks set for students during classes in second degree studies is the appropriate planning for particular participants in the Snoezelen room. Amongst other things, students must prepare a Snoezelen Care Plan for participants from different age groups and levels of functioning.
- Appropriate use of voice is important in the Snoezelen room. Students practice non-directive communication, but also create sensory narratives that can lead participants through both free sessions and thematic sessions. The topic of sensory preference is also raised.
- Separate classes are devoted to tactile and olfactory stimulation during Snoezelen sessions. Here, elements of Andreas Froehlich's Basal Stimulation are employed.
- Students experience the Snoezelen room for themselves, playing the role of people with large and small motor limitations (various types of immobilization are used).
- One of the students' tasks is to handcraft aids/accessories that can be used in Snoezelen sessions.
- Finally, in classes, the group build a "sensory metaphor for the road" (this is a combination of visual, tactile, and olfactory stimuli to express the topic chosen by the group, and then a multisensory experience of it).

The content of the lectures and classes presented is compatible with the theory and practice of occupational therapy, involving:

- A Person-Centered approach in line with Carl Rogers' concept (the therapist as a partner of the participant, striving for an empathic and subjective approach to the patient).
- Individualization (e.g., patient-specific Snoezelen Care Plan).
- Discussion of various groups of participants (in line with the principle that occupational therapists work with various groups of clients, since all clients are occupational beings).
- Psycho-motorics (a field of particular importance at every University of Physical Education).
- An interdisciplinary approach (e.g., the subject of psycho-oncology and Snoezelen or Snoezelen outside the Snoezelen room – the use of hortitherapy or animal therapy).

- Handcrafting of articles for Snoezelen sessions and adaptation of Snoezelen rooms (skills indispensable to the profession of occupational therapist).
- Using space as a therapeutic tool (Snoezelen room plans, using devices, i.e., a specific understanding of ergonomics, which is another key aspect in the profession of an occupational therapist).
- Combining abstract and symbolic thinking with a practical approach, which is characteristic in the profession of occupational therapist (e.g., sensory road metaphor, sensory narratives).

THE SNOEZELEN ROOM AT THE UNIVERSITY OF PHYSICAL EDUCATION, KRAKOW AS A CLASSROOM AND RESEARCH LABORATORY

Conducting both lectures and practical exercises would be much more difficult and less effective if it were not for the properly equipped Snoezelen rooms at the University of Physical Education, Krakow. We currently have two Snoezelen rooms: color (over 30 sq m) and white (over 40 sq m).

The Color Snoezelen room is equipped with:

- an island of two water columns
- a waterbed with vibrating mat
- a mirror cabin
- a light-and-sound track (9 fields)
- a ball pool
- touch boards, pockets, and paths
- three strings of optic fibers
- salt lamps and aromatherapy lamps
- Orff instruments
- a mirror ball
- an LED ceiling and wall panels

The White Snoezelen room is equipped with:

- an island of four water columns
- a waterbed with vibrating mat and musical base
- a light-and-sound track (12 fields)
- a light-and-sound ladder
- a music armchair
- ethno and Orff instruments
- two optic fiber waterfalls
- two optic fiber strings
- a projector for liquid and solid targets
- a mirror ball

The Snoezelen rooms at the University of Physical Education are used both for teaching and research purposes, as they are part of the Central Science and Research Laboratory.

Like all CSRL laboratories, the Snoezelen Laboratory holds an ISO quality mark and is subject to regular internal and external audits.

ISO quality mark for the Snoezelen Scientific and Research Laboratory (World Experience Room) at the University of Physical Education, Krakow – excerpts from documentation

DOCUMENTING THE PROCEDURE

1. PURPOSE

The purpose of the procedure is to initiate and carry out non-directive and task-free multisensory stimulation in the Snoezelen room (World Experience Room), strictly according to the eight principles of the Snoezelen method: 1. The Right Atmosphere, 2. The Opportunity for Choice, 3. The Opportunity to Set the Pace, 4. The Right Length of Time, 5. Repetition, 6. A Selective offer of Stimuli, 7. The Proper Fundamental Attitude, 8. The Right Supervision (...).

The intended state that we plan to achieve depends on the individual case:

- in one patient it may involve activation of the patient, both in motor and cognitive terms, stimulating the patient to explore, or opening the patient to social interaction and communication;
- in another patient it may be to relax and calm down the patient, or to reduce problem behaviors in the patient, including aggressive, auto-aggressive, and stereotypical forms.

The final determination of the goal is based on the patient's diagnosis. For example, he/she might be autistic (highly functioning or intellectually disabled, over-reactive or sub-reactive, etc.), he/she might have an intellectual disability (to various extents), he/she might have a physical disability or multiple disabilities, he/she might be a senior with dementia, he/she might have a neurological disorder (e.g., Parkinson's disease, MS), he/she might have a mental disorder, or he/she might suffer from chronic pain.

The second factor that determines the final formulation of the goal is the age of the person participating in the Snoezelen sessions (infant, child, adult, senior – all age groups can participate in Snoezelen sessions).

2. SUBJECT

The procedure describes the process of task-free and non-directive multisensory stimulation in the Snoezelen room (World Experience Room) divided into three stages:

1. Opening a Snoezelen session (initiation phase).
2. Main phase of the Snoezelen session.
3. End of the Snoezelen session (closing phase).

Within these three stages, a double process specific to Snoezelen therapy takes place simultaneously, i.e., non-invasive activation and active relaxation.

3. SCOPE OF APPLICATION

The procedure is universal – it applies to every age group and to all levels of fitness (physical, cognitive, mental). The universality of the procedure implies the need to individualize the course of the Snoezelen session adequately to the needs of a given patient and his/her diagnosis (...).

4. RESPONSIBILITY

The person responsible for supervising the implementation of the entire procedure – the Laboratory Manager.

The person responsible for the implementation of the entire procedure – the Laboratory Manager and those appointed by the Laboratory Manager.

Due to the holistic nature of the Snoezelen method, responsibility for individual actions during the procedure is not specified.

Research in the Snoezelen rooms at the University of Physical Education may be conducted by academics but also by students, primarily as part of their master's theses, and as part of the activities of the Student's Scientific Society for Occupational Therapy. PhD students and postgraduates who apply for a doctorate place or are already working on their PhD theses can also use Snoezelen rooms to conduct research.

Sample topics of bachelor's and master's theses in the field of Snoezelen defended at the University of Physical Education, Kraków:

"The impact of the World Experience Room on a blind person from the perspective of occupational therapy – a case study" (Author: Monika Chmielarz. Supervisor: Dr Agnieszka Smrokowska-Reichmann).

"Use of the Snoezelen method (World Experience Room) with a child with sensory integration disorders based on a case report" (Author: Natalia Chorobik. Supervisor: Dr Agnieszka Smrokowska-Reichmann).

"The impact of the World Experience Room on a child with Down syndrome based on a case report" (Author: Martyna Rząsa. Supervisor: Dr Agnieszka Smrokowska-Reichmann).

"Assessment of the level of functioning of the World Experience Rooms (Snoezelen rooms) in Poland on selected examples" (Author: Paulina Matejko. Supervisor: Dr Agnieszka Smrokowska-Reichmann).

Topics of doctoral dissertations in the field of Snoezelen defended in 2022 at the University of Physical Education, Krakow:

"The impact of Snoezelen therapy on the level of stress and selected physiological, morphological and rheological indicators of blood in young adults" (Author: Klaudia Bednarek. Supervisor: prof. Aneta Bac, co-supervisor: Dr Agnieszka Smrokowska-Reichmann).

"The influence of the Snoezelen method on postural stability, cognitive functions, behavior and quality of life in people with paranoid schizophrenia" (Author: Urszula Żmudzińska. Supervisor: prof. Aneta Bac, co-supervisor: Dr Agnieszka Smrokowska-Reichmann).

Finally, it is worth mentioning that at the University of Physical Education, Krakow, the Snoezelen method is also presented in short form to students of Physiotherapy as part of the subject "Basics of occupational therapy".

EXAMPLES OF OCCUPATIONAL THERAPY STUDENTS' OUTPUT

Two sensory narratives prepared by Agnieszka Ryś, a first-year student of MA studies in Occupational Therapy as part of a credit for the subject "Snoezelen as a method of occupational therapy"

BEACH (intended for seniors as the end of a Snoezelen session, for those working in a corporation, and for students – during a break from study/work)

You are standing on the seashore. Your bare feet are immersed in golden, warm sand. You move your toes and feel the tiny grains and pebbles falling between them. You are walking towards the calm sea. You feel a pleasant breeze on your cheeks. You breathe in the scent of the sea breeze slowly, and you have a salty taste in your mouth. You exhale slowly and close your eyes. You hear seagulls flying in from a distance, getting louder as they approach. You open your eyes and sit down on the hot sand. Your feet are washed with cool water. You watch small waves form in the sea and hurl shells onto the sand. You collect them. They are small with fine, convex lines on the surface and smooth on the inside. You turn them over in your hands while you look at them carefully. They vary in color: gold, brown, pink, and silver. You are looking at the water, the slowly setting sun is reflecting in it now. The sky turns orange, the sun slowly sinks beneath the horizon. You feel a cooler breeze and take your feet

out of the water. The sky turns red. The seagulls take flight again. Their dark shapes appear against the setting sun. You feel calm. You take another deep breath, reveling in the fresh sea scent, and walk away, plunging your bare feet into the still warm sand.

ENCHANTED FOREST (intended for preschool children without motor problems – as a whole session)

You are in an enchanted forest! You are surrounded by tall trees with colorful, shimmering trunks and large shiny leaves. You can hear birds singing, insects buzzing. You can see beautiful butterflies, bees, and dragonflies with silvery wings flying in the forest. Smell the flowers, look at how many there are under the trees! These flowers are magical, there is a magical surprise inside each of them. There is something in one of them ... Take it out! What is it? Maybe it can be eaten? Give it a try, can you taste that sweet fruit flavor? Now take a look what's in the other flower. This thing is smooth, it's shaped like a ball, it's probably some kind of egg. It's starting to crack! You can hear the crack of the shell breaking. The egg breaks, and a beautiful blue bird with a long tail flies out of it! The bird sits on a shimmering tree branch and flaps its wings at you – I think it wants you to go with it! The bird says a magic spell and, suddenly, beautiful, large wings appear on your back. You take to the air; you follow this beautiful bird. You are already above the branches of the trees; you can see everything from above now. You are flying; a nice warm wind blows through your face. You can see trees, a river, and even a beautiful waterfall! A colorful rainbow appears in the sky; you are flying towards it. You sit on a rainbow; it is very soft and warm, like an eiderdown quilt. It rocks slightly like a cradle. You are very calm, and you feel warm and pleasant. You fall asleep.

Two scenarios of sessions in the Snoezelen room prepared by students of the bachelor studies in Occupational Therapy, 2021 as part of the credit for the subject "Snoezelen – World Experience Room" (clinical group: Tina Pereplytsia, Dominika Pietras, Maria Przybyła, Emilia Puchała, Karolina Sarnecka)

"JOURNEY TO ANTARCTICA"

A session scenario for two or three children with sensory integration disorders

Snoezelen room arrangement:

Blue and white colors, image from the projector – Antarctic landscape

Props:

White tulle fabric, backpack, ice candy, touch pouches, snow stars made of epoxy resin, a weighted blanket

Session progress:

1. Stimulation of hand sensory receptors, sense of touch, sense of smell. Packing a backpack for a trip to Antarctica. Putting into it, one by one, bags filled with materials of different structure and smell (e.g., lavender, coffee beans, tea).
2. Stimulation of proprioception, body schema and image. Putting on warm clothes while standing. One by one, starting with the feet, ending with the head, touching parts of the body, imitating putting on clothes, feeling individual parts of the body.

3. Stimulation of the sense of sight and spatial orientation. Watching snow falling in the wind. Getting under the curtain of optic fibers, touching them, shoving them away. The therapist raises and lowers the optic fibers imitating the wind – children name where the optic fibers are now (right, left, up, down).
4. Relaxation – massage. Sitting on a white shaggy rug/furry white cushion. Touching, massaging the children's limbs, pretending that they are cold and need to be warmed.
5. Elements of music therapy, cognitive activation, sense of hearing, body schema and body image. The song "Little snowflakes falling on ..." (played or sung by the therapist). Body parts recognition/naming also in English (head, nose, hand). Touching individual parts of the body with a "snowflake".
6. Activation – large motor skills, motor coordination, sense of taste. Turning on the mirror ball rotation – pretending to be in a snowstorm. Crawling on white mattresses to the mirror cabin ("igloo") to take shelter there from the storm. Left hand – right leg; right hand – left leg. A mirror cabin covered with white cloth. Inside, a salt lamp is lit – a "fire". Taking out and eating supplies from the backpack (ice candy). Exit the igloo with the same creeping motion after the snowstorm has stopped.
7. Relaxation – proprioceptive stimulation, body contours, sense of hearing, sense of touch. Lying down on a waterbed – pretending to be floating on an ice floe. Recreating the sound of the sea. Covering up with the weighted blanket (for warmth – cold arctic air).

"IN OUR GARDEN"

A session scenario for two adults with moderate intellectual disability

Snoezelen room arrangement:

Colors: yellow, green, pink, image from the projector – garden in spring.

Props:

Sensory bags with various seeds, rain sticks (instruments), fruit stickers on water columns, flowers (freshly cut or in pots), soft fruit to taste (e.g., berries).

Session progression:

1. Touch simulation, eye-hand coordination. We go to the market to get seeds that we will sow in the garden. Participants examine and select different tactile pouches with different seed structures from the box.
2. Stimulation of sight, hearing, touch, spatial orientation. We're in the garden. We part the optic fiber, creating a circle from it. In this "bed" we sow the grain – we aim and throw the tactile pouches trying to hit the center of the circle. Then we water the grains – using rain sticks. We tread the ground – walking on optic fibers.
3. Activation – large motor skills. Taste stimulation. We collect fruit – removing stickers from water columns. While doing this, we stand on one leg, then on the other, on toes, on heels. After a successful harvest, we refresh ourselves with fruit (tasting the prepared fruit).
4. Relaxation – the sense of hearing, the sense of smell and touch. After all the activities in the garden, we lie down on a comfortable rocking seat or a waterbed. We listen to the birds singing – recreating the sounds of nature. We touch and smell the real flowers we brought.

Two Snoezelen Care Plans prepared by students of master studies in Occupational Therapy as part of the credit for the subject "Snoezelen as an Occupational Therapy method". (Clinical group: Justyna Osmęda, Katarzyna Malisz, Magdalena Pakosz, Zuzanna Barczyk, Klaudia Mieszek.)

1. Snoezelen Care Plan
The patient: a woman with Alzheimer's disease
Age: 74
Disease stage: intermediate

A.

Patient's problems:

- Cognitive impairment (memory, comprehension, counting, logical thinking, etc.). The patient has problems with the right choice of words, confuses concepts.
- Depressed mood.
- Spatial orientation disorders. The patient cannot find her way home.
- Disturbances in the circadian rhythm. The patient wakes up several times during the night, wanders around, tries to leave the apartment.
- The beginnings of problems with self-care. The patient is unable to dress appropriately for the weather, to fasten buttons.
- Problems with self-control. The patient does not follow the rules of social coexistence.

Patient's competences:

- Recognizes relatives.
- Willingly participates in activities in the day care home.
- Can eat independently.
- Can independently perform most of the activities in the field of personal hygiene.

B.

Main objective:

To improve the patient's quality of life.

Partial objectives:

- To make contact with the patient – build trust.
- To support verbal and non-verbal communication.
- To improve mood.
- To improve self-confidence.
- To facilitate coping with stress.
- To consolidate positive patterns of behavior.

C.

Therapeutic strategies

Reminiscence therapy:

- Simple sensory narratives.

- Tactile elements that the patient knows from her past (favorite items, materials, jewelry, handbag).
- Fragrance oils with a calming and relaxing effect.
- Songs popular in the patient's youth (listening to them, but also singing/humming).
- Thematic projections.

Colors of water columns and optical fibers:
orange, yellow, green – the Snoezelen room should not be too dark.

Snoezelen Care Plan update:
Every two months, during a meeting in an interdisciplinary team.

2. Snoezelen Care Plan
Patient: a boy with autism, highly functioning
Age: 11 years

A.

Patient's problems:
- Does not participate in playing with peers.
- Is more interested in contact with objects than with people.
- Usually avoids eye contact with others.
- Can be hyperactive and impulsive.
- Often becomes aggressive for no apparent reason.
- Exhibits movement stereotypes (turns in one place continuously, sways back and forth in a chair).
- Is hypersensitive to sounds and touch.
- Direct echolalia (words and even whole sentences).
- Limited, repetitive patterns of behavior and activity.
-

Patient's competences:
- Has a good visual memory.
- Eager to learn and broaden his skills.
- Shows considerable ability within the scope of his interests.
- Adapts well to new places.
- Is not afraid of strangers.

B.

Main objective:
To improve the quality of life of the patient.
Partial objectives:
- To calm him down.
- To work on his emotions (identifying and expressing emotions).

- To support his perception and processing of stimuli.
- To strengthen his relationships and communication with others.

C.

Therapeutic strategies:

- Listening to music and relaxing sounds (recordings and music chair).
- Independent music making (idiophonic instruments, ocean drum, rain sticks).
- Tactile and proprioceptive stimulation (waterbed, massage rollers).
- Sensory narratives (fairy tale therapy).
- Activation in a mini group (up to three people) – thematic activities and activities based on a scenario.
- Thematic projections.
- Eye stimulation: optic fibers, water columns.

The Snoezelen room is additionally lit with LED strips (it should not be too dark).

Snoezelen Care Plan update:
Every two months, during a meeting of an interdisciplinary team.

Fig. 47: Classes in White Snoezelen at UPhE in Kraków – the author and the student

Fig. 48: Classes in White Snoezelen at UPhE in Kraków – the author and the students

Fig. 49–50: Classes in Color Snoezelen at UPhE in Kraków – students on sound-and-light track

ERASMUS+ 2022/2023

1. **Course:** Snoezelen as an occupational therapy method.
2. **Type of classes:** Lectures, practical classes.
3. **Assessment:** Credit with a grade.
4. **Semester in which classes will be conducted:** Summer semester.
5. **Proposed number of hours:** 15.
6. **Syllabus:**
   The aim of the course: Introducing Snoezelen as an occupational therapy method with various groups of patients. Describing the principles of correct Snoezelen room arrangement and session conduct.
   Pre-requisites: Basic knowledge of occupational therapy.
   Content: (Lectures): Snoezelen – its origin and essence. Snoezelen – eight methodological principles. Snoezelen – applications to different groups of patients. (Classes): Correct planning of a Snoezelen room. Snoezelen Care Plan. Free sessions and structured sessions.
   Teaching methods: Lectures. Discussion. Classes. Working in groups. Case studies.
7. **Learning outcomes:** Students will know and understand the theoretical basis and methodological criteria of Snoezelen. Students will understand the impact of the Snoezelen method in occupational therapy. Students will know how to arrange a Snoezelen room correctly. Students will know how to conduct free and structured sessions in a Snoezelen room with various groups of patients.
8. **Qualifications:** The courses are part of first (bachelor's) and second (master's) degree studies.
9. **Organisational unit behind the course:** Department of Sensory Occupational Therapy.
10. **Person(s) responsible for the subject:** Agnieszka Smrokowska-Reichmann, PhD.
11. **Conditions of the course:** Lectures – on campus/on-line, practical classes – on campus in the Snoezelen rooms (max. 12 students).
12. **Proposed number of ECTS:** 3.
13. **Eight hours may be conducted on-line.**

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illustrative photo

3 SNOEZELEN IN CATALONIA

3.1 IMPLEMENTATION OF SNOEZELEN IN CATALONIA

3.1.1 HISTORY AND CURRENCY OF IMPLEMENTING SNOEZELEN

Currently in Spain, the Snoezelen concept is well known by many professionals dedicated to people's well-being in different fields such as education, health, or social care for the elderly.

We are going to carry out a brief review of the evolution of the Snoezelen intervention in Spain and especially in Catalonia.

At the end of the '90s and especially at the beginning of this millennium, there were very few entities and professionals who had working knowledge of Snoezelen in Spain. It is from the year 2000 that some entities, mostly special education centers, began to know what a Snoezelen room actually is. It was a time when many centers dedicated to special education and attention to people with intellectual disabilities could count with the first Snoezelen Rooms in Spain. Most of these spaces are a reality thanks to the financial support of banking entities. In some institutions the Snoezelen Rooms began to appear as a result of a grant. These spaces were beginning to open up, but it was not known how to work in them. There was no methodology to guide the practice. There was no theoretical knowledge that supported their effectiveness. For this reason, many of the Snoezelen Rooms that began to exist in a short time fell into disuse. It was a very colorful space, with lights, colors, music, but little was known about what to do there or its application in well-being or in therapy.

In 2005 the current president of the Isna Spain Association, M. José Cid, together with another professional, participated for the first time in an Internment Congress of the Isna Association (www.isna-mse.org). This moment marked a before and after in what would be Snoezelen in Spain. It marked a turning point, in the sense that it opened up knowledge to new experiences which were much more advanced in other countries, especially northern European countries.

In 2006, from Apasa in Amposta (Catalonia), which is an entity dedicated to caring for people with intellectual disabilities and their families, organized the First Conference in Spain on Multisensory Stimulation and Snoezelen. More than 200 professionals from all over Spain attended, wanting to know, share and learn about multisensory stimulation and Snoezelen. In the following years, theoretical-practical training courses on multisensory stimulation and Snoezelen were organized. Many professionals from all over Spain participated in these courses, generating knowledge and synergies that indicated a great desire to innovate and improve, especially in the field of intellectual disability.

In 2009, same as in 2006 in Amposta and this time also from Apasa, the Second Spanish Conference on Multisensory Stimulation and Snoezelen was organized. This was also a success, with more than 200 professionals from all over Spain. These conferences were very special because they were attended by Mr. Ad Verheul, creator of the Snoezelen concept, and Dr. Krista Mertens, who was the President of the International Snoezelen Association at that time. *The Pedro Pablo Berruezo Memorial, who was a professor at the University of Murcia, soul from the beginning of the organization of the Conference* and a great connoisseur of Psychomotricity, multisensory stimulation and Snoezelen, was established in these Conferences.

In 2011, the third Spanish Conference on multisensory stimulation and Snoezelen was organized by the same entity, counting also with the presence of more than 200 professionals. In these conferences, the President of the International Snoezelen Association, Mr. Maurits Eijgendaal and the representative of Isna in France, Mrs. Monique Carlotti were attending as international speakers. The year 2011 was very important because it was the year in which the Isna Spain Association was legally constituted. A Board of Directors were elected, statutes were drawn up and the Association was legalized.

From 2014 the conferences started to be itinerant. It is promoted that different members of the Board of Directors of ISNA Spain and its entities can organize different editions of the Conference in different parts of the Spanish State. At the educational level, a professional is trained and recognized internationally as a formator of future Snoezelen therapists in Spain. Thus began a structured path of theoretical and practical training on Snoezelen. Training is organized and professionals from all over the Spanish territory are taught. By the end of 2022 in Spain there were more than 500 certified professionals at international level such as Snoezelen therapists. Snoezelen therapists are professionals in varied fields, for example: geriatrics assistants, educational technical assistants, teachers, nurses, psychologists, doctors, physiotherapists, occupational therapists, social workers, social educators, etc.

At the university level it is worth mentioning that the University of Lleida in 2018 created the First Snoezelen Chamber in this context and established a university training.

After more than twenty years since its beginning, in 2022, Snoezelen was a reality in Spain. There are now many centers and organizations which have a Snoezelen space. But the most important thing is how it has been evolving towards the Snoezelen concept 24 hours, highlighting how “The Snoezelen Look” has generated a change in the attention to people that goes far beyond the intervention in a Snoezelen room. The current training in Snoezelen emphasizes the importance of sensory perception in our day to day lives, and will be fundamental in the attention to vulnerable people to offer everyday life with a sensory input adapted to tastes and the person’s abilities. In this way, we will see that the emotional well -being and quality of life of the assisted person will improve in an evident way.

Fig. 51: Families and children in Snoezelen, Lleida, 2023

Fig. 52: Families and children in Snoezelen, Lleida, 2023

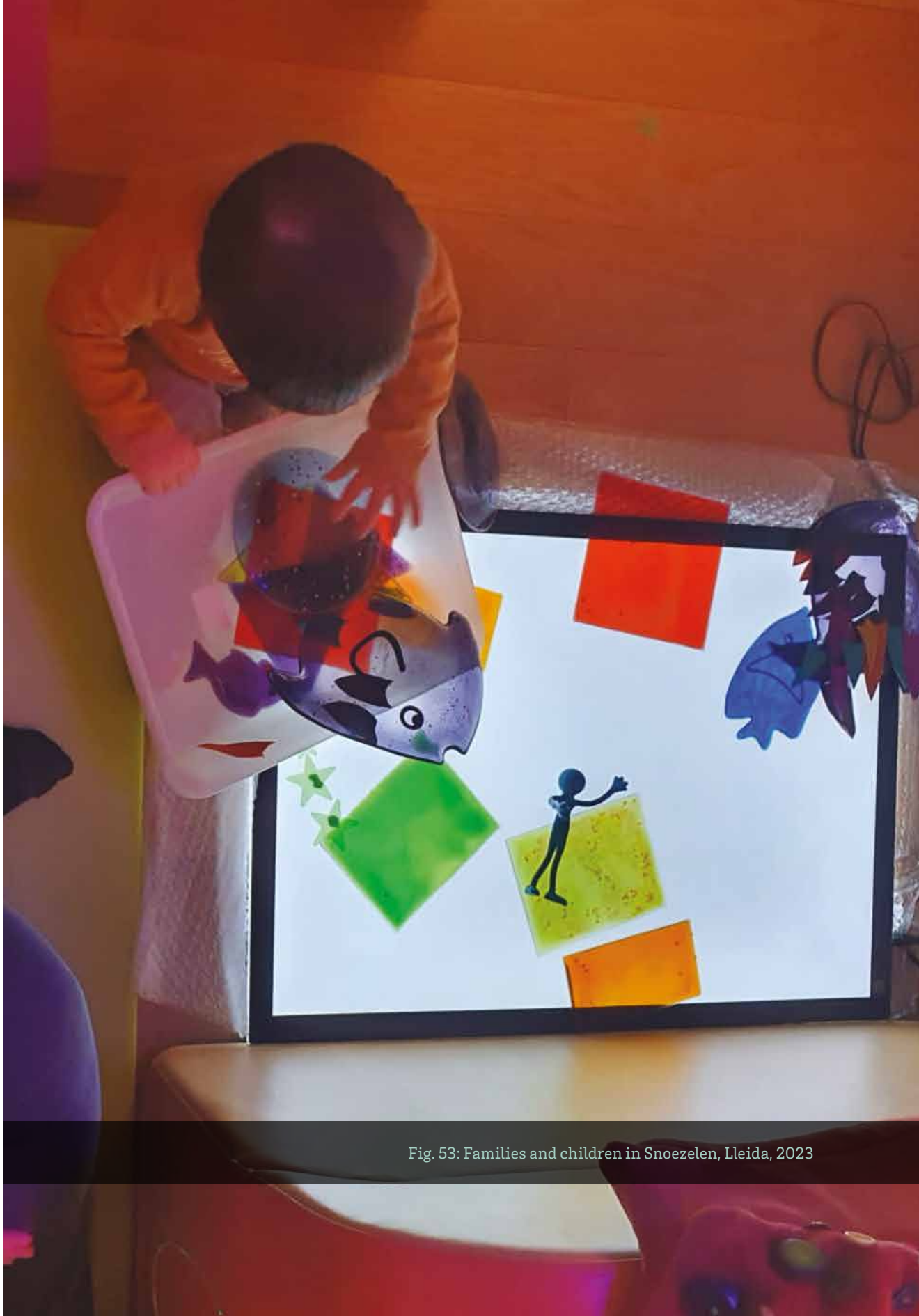

Fig. 53: Families and children in Snoezelen, Lleida, 2023

Fig. 54: Families and children in Snoezelen, Lleida, 2023

3.1.2 SNOEZELEN TYPES AND FORMS IN CATALONIA

In Snoezelen sensory stimulation, types and forms of intervention can be differentiated as we pay attention to three aspects: the physical space to do it, according to the objective of our work, and according to the methodology used. In this section we will talk about these types of Snoezelen stimulation that were implemented in Catalonia.

In the Snoezelen intervention, two great possibilities can be differentiated in terms of the physical space in which to develop it: in the very environment in which the person lives or what is called 24-hour Snoezelen, as we have already mentioned, and the intervention in a specific space, or Snoezelen room.

In the first case, we try to adapt the physical environment of the person's daily life, their home or in a residential context, their room and community spaces, so that they are pleasant and accessible from a sensory point of view. The principle behind the practice is the biopsychosocial approach in understanding people's health and behavior. To ensure the basic daily necessities of life such as hygiene, food, waking up, dressing, etc. can be adapted to their needs and sensory preferences, and become moments of enjoyment and well-being. This global approach to daily life or Snoezelen 24 hours, is based on the concept of Snoezelen philosophy (Van Weert et al, 2005).

In the second case, a Snoezelen sensory stimulation room is a space that enables the sensory awakening of the person through their experimentation and the mediation of the professional. Therefore, this sensory experimentation can help in the global development of the person (Cid and Camps, 2010).

Depending on the objective that interests us to develop in the room, we can differentiate three main areas of intervention: As a space for exploration and sensory play, for cognitive, educational and socio-emotional development, relational and behavioral regulation development.

Each area of work involves some guidelines in the design of the room, this is an environmental decoration and includes some minimal elements. Whatever their purpose is, they all have a common denominator: The facilitation of sensory opening as a pleasant experience. A basic requirement in the design of the room according to the minimum elements that must be incorporated is to ensure the stimulation of tactile, proprioceptive and vestibular inputs, since they are the first facilitative sensory inputs on the scale of cognitive development.

If the objective of the Snoezelen room is to become a space for exploration and play, the person chooses at each moment the element or object that captures their attention and moves freely through the space. In this case, the professional is the mediator to create a comfortable, safe and healthy environment for each person, that is, an environment

adjusted to them and where they have the opportunity to choose what they want to touch, see, smell, hear... etc. We are interested in the emergence of initiative, intentional movement and spontaneity.

If the field of **intervention is cognitive or educational,** the focus is on new learning through discovery, even if the activity is minimally structured. In this case, the Snoezelen room becomes a motivating environment to start, develop or consolidate cognitive processes such as attention, concentration, memory, language or concept integration, all of which are prerequisites for school or educational learning. In this case, we can design an environment in which bright or dark colors predominate. In the case of the predominance of dark color, it is what we call a **black room**. In this environment, visual contrast and ultraviolet light are used with shiny materials in contact with this light. This is intended to activate the sensory inputs of the person so that they develop active participation and control over the environment, through the emotion of surprise and the search movement.

The Snoezelen room may also be of interest as a complementary space for the development of the school's curricular content. Technology allows you to create immersive and interactive environments, editing the content that you want to reinforce. In this way, the Snoezelen room becomes a thematic world that motivates the student in new learning. Thus, the interactive projection allows the whole group to share the same virtual experience, for example, traveling to the African savannah to learn about its flora and fauna or visiting an art center as if we were really there. It is understood that the enveloping projection can also be considered as a strategy to complement relaxation, playful activities, etc.

In this same educational field, we may be interested in prioritizing perceptual motor and sensory development in people with physical problems. In this profile you can work on gross and fine motor coordination, laterality, oculo-manual coordination, postural control, reduction of spastic tone or strength. In this case, **the snoezelen adventure room** is conditioned with elements that work primarily on the vestibular and proprioceptive inputs such as cylinders, medicine balls, trampoline, slide, boats, hammock or swing.

Lastly, if the field of intervention is socio-emotional or therapeutic, aspects such as motivation, self-esteem, improved mood, social skills, appropriate roles and behaviors, etc. are developed. It is recommended to use white in the setting. Hence, the name white room is used – although not all the elements have to be white – looking for the white color to predominate in the decoration and thus highlight the elements on which we want the person to focus their attention. In this area, relaxation and interactivity are frequently worked through discovery and spontaneity.

In general, entities and care services for people with disabilities of different ages opt for a decoration that combines colors of cold tones – white, blue, green – and warm – yellow, orange – to create relaxing or activating environments depending on their aim. Therefore, it is advisable to design multifunctional spaces with a diversity of elements to create relaxing or stimulating environments.

In recent years and from Spain, a new form of application of the Snoezelen room is being used in the family environment. In many centers, especially in the residential areas, where people with cognitive difficulties are cared for, the intervention with the person and their family is being integrated into the Snoezelen Room. Various experiences are showing how the Snoezelen environment is a context in which the family can establish an authentic emotional bond with their relative, from sensoriality. Possibly the cognitive functioning of the person is compromised, but the emotions, linked to the sensations, remain intact. Therefore, accompanying the person and their family to "meet" emotionally through the Snoezelen room can be a good option.

Whatever the objective of the room may be, Jakob and Collier (2017), in a study on improvement in the design of the rooms, recommend focusing on the active participation of both the users of the room and the professionals who work in it. In this way, their involvement by mobilizing their creativity empowers them and helps to create a positive attitude towards their use.

Thirdly, regarding the methodological perspective in professional intervention, depending on the needs and profile of the person, we can differentiate between a more or less directive methodology. In a non-directive therapy or methodology and from the point of view of the role of the professional, he acts as an observer who joins and ensures his presence and the person is the protagonist of his experience and learning.

In an active methodology or directive therapy, the professional is a mediator of the learning process that accompanies looking for an intention and the person is asked to be active and become aware of their actions in the control of sensory inputs and their effects on themselves. In general, regarding the methodology, it may be interesting to combine spaces that allow the person to experience passive and active roles.

In this section we collect the key concepts that, in our opinion, Psychology and its different areas of study introduce into Snoezelen multi sensory stimulation, for later describing some of the research on the benefit of this intervention in different groups. Multisensory stimulation as a facilitator of the maturation of the nervous system and the production of responses adjusted to the demands of the environment, has been studied from different theories such as Sensory Integration or Basal Stimulation. What does Snoezelen multisensory stimulation provide? We believe that Snoezelen complements the aforementioned theories, focusing on the importance of sensoriality for the person's emotional well-being, based on their decision-making.

The senses and emotions are continuously present in the person. On the one hand, these faculties come from the context and environment of the person; on the other hand, they are capacities experienced in a particular and individual way. The Snoezelen intervention focuses on how this environment is capable of adapting to the person in order to enhance their development and quality of life.

Other areas of knowledge of psychology, such as evolutionary development and its relationship with human behavior – in the field of emotional and behavioral self-regulation –, provide information on how a certain environment can influence or not, the processes of development and well-being of the person. For this reason, areas of psychological intervention that cover different stages of the life cycle – such as early attention or intervention in neurodegenerative processes – aim to improve the development and quality of life of people by intervening on their positive interaction with the environment. Snoezelen fully enters as an intervention that follows this line.

Specifically, from Developmental Psychology, ecological models emphasize the relationship between person and context, as well as placing the person at the center of the intervention process. From this point of view, the Person-Centered Attention model (Martínez Rodríguez, 2013) invites us to conceive of the person as an active subject based on their interests, preferences and desires. Snoezelen is care centered on the person, and also care centered on the relationship with the other. The relationship between professional and person will be essential to really offer an improvement in Quality of Life standards. This will be a key principle in the Snoezelen multi sensory intervention.

Another of the key concepts to our understanding, from Educational Psychology and on which we base ourselves on Snoezelen stimulation, is that of Multiple Intelligences developed by the American psychologist Howard Gardner (1983). This concept represents a pedagogical innovation to enhance the teaching-learning process, since it proposes a plural vision of people's cognitive potential and learning styles. Its application in people with disabilities allows us to adapt the support to their specific needs. Derived from the concept of multiple intelligences, Goleman (1996) develops the concept of Emotional Intelligence, as the capability to adaptively influence our emotions and the interpretation of the emotional states of others. That is why the development of emotional intelligence will be very important in processes of socialization and adaptation to the environment.

3.1.3 NEUROPLASTICITY & PRINCIPLES OF SYNAPTIC INTEGRATION

Neuroplasticity can be defined as the ability of the neurons and neural networks that constitute the nervous system to modify its structural connectivity and responses on the basis of stimulations (normal development, sensory stimulation, response to new information, or even dysfunction, damages) or environmental changes. Neuroplasticity is considered widely to be a complex, multifaceted and fundamental property of the brain.

We can distinguish two different but related processes within the neural plasticity: functional and structural plasticity. The functional plasticity comprehends the biological mechanisms behind synaptic changes (ex.: bioelectrical modifications in action potentials and neurochemical changes in neurotransmitters, providing an increase or decrease in synaptic efficacy by long-term

potentiation or long-term depression; Bliss & Cooke, 2011). This is a continuous remodelling process which allows short- to long-term reshaping of the synaptic connections, contributing to modifying or renewing its functions. The structural plasticity refers to morphological modifications occurring in neurons (axons and dendrites), in addition to renovation of these neurons and their synapses (birth of new neurons or neurogenesis, and generation of new synaptic contacts or synaptogenesis). Thus, the brain's network plasticity plays a pivotal role throughout the lifespan of the individual, from the critical period in early development (ex.: new neural maps thanks to learning through sense stimulations) to adulthood and old age (ex.: academics learning, new languages, or stabilization of previous memories) (Diagram 10).

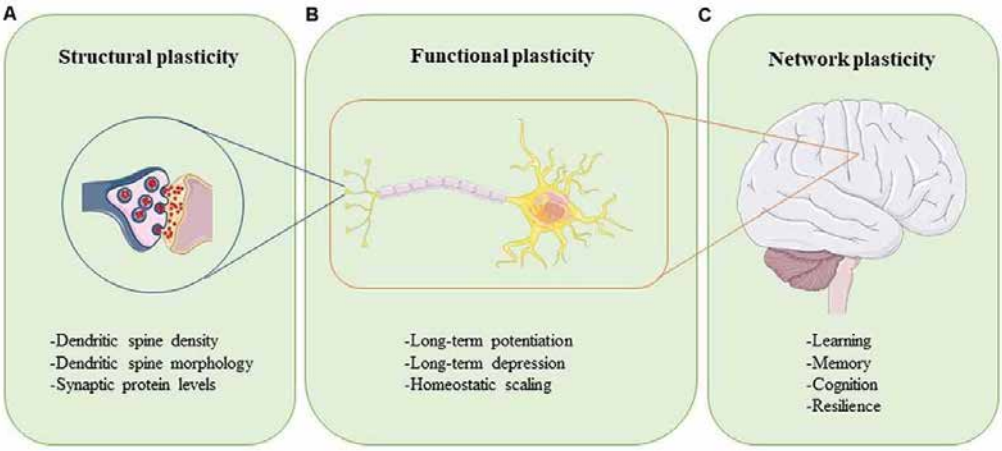

Diagram 10: Neuroplasticity can be exanimated at different brain/neuronal levels. A) Structural plasticity refers to the morphological changes that occur at the synapse, such as altered dendritic spine density, dendritic spine shape, and synaptic protein profiles. B) Functional plasticity affects neuronal circuit regulation and includes processes such as long-term potentiation (LTP), long-term depression (LTD), and homeostatic scaling. C) At the brain level, network plasticity resilience. Proper function and careful integration of all levels of plasticity are required for healthy brain function.

The most central nervous system neurons receive thousands of synaptic inputs that activate different combinations of neuronal receptors (neurotransmitter-gated ion channels and G-protein coupled receptors). The postsynaptic neuron integrates all these complex ionic and neurochemical signals to produce a simple form of output: action potentials. The transformation of many synaptic inputs to a single neuronal output constitutes a neural computation processes. The brain performs billions of neural computations every second. Thus, synaptic integration is the process by which multiple presynaptic potentials combine within one postsynaptic neuron. The most elementary postsynaptic response is the opening of a single transmitter-gated channel. Inward current through these channels depolarizes the postsynaptic membrane, causing the excitatory postsynaptic potential (EPSP). The postsynaptic membrane of one synapse may have from a few tens to several thousands of transmitter-gated channels; how many of these are activated during synaptic transmission depends mainly on how much neurotransmitter is released from synaptic vesicles (transmitter molecules). EPSP summation represents the simplest form of synaptic integration in the central nervous system.

FROM CROSS-MODAL STIMULI TO MULTISENSORY INTEGRATION

Living beings must deal with a complex natural environment in their daily lives. This environment perceived during a normal experience conveys a large amount of information, which is extracted by multiple senses acting in concert, allowing complementary pieces of information to be extracted about the same object/person/context, to help cue detection and accurate sensory experience, drive cognitive and motor processes in an optimal and faster way, and allow efficient interaction with the environment.

HOW DOES SENSORY PROCESSING OCCUR WITH DIFFERENT SENSORY MODALITIES?

Unisensory before Multisensory perspective. A traditional point of view assumes that individual senses are first processed separately (i.e., through segregated channels) in unisensory primary cortical areas to extract their typical information, and only subsequently combined at later processing stages, in multisensory association areas of the brain. Recent data about primary cortices show that even the early cortical perceptual areas (such as the primary visual cortex, V1, or the primary auditory cortex, A1) receive inputs from other unisensory areas or multisensory associative areas and exhibit some multisensory behaviours (Diagram 11).

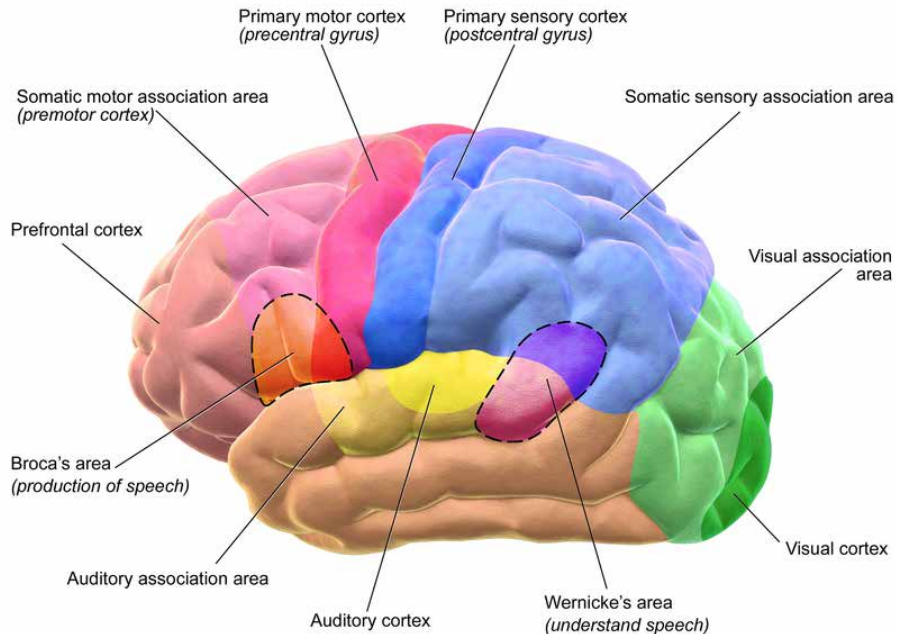

Diagram 11: Graphical representation of the human brain where sensory information comes together and is integrated such as the Auditory, Visual and Motor Cortices pictured here. [Image: Bruce Blaus, https://goo.gl/UqKBI3, CC BY 3.0, https://goo.gl/b58TcB]

WHAT IS MULTISENSORIALITY?

Multisensoriality. In a strict sense, a neuron can be said to be multisensory if it responds significantly to distinct unisensory stimuli of at least two alternative modalities (i.e. audio-visual or visuotactile). This signifies that the neuron exhibits a receptive field for each modality independently of the others. In this sense, we have multisensory neurons in the superior colliculus and multisensory associative cortical areas. But in a wide sense, a neuron also could exhibit a kind of multisensory behaviour if its response to a unisensory stimulus of one modality is affected (either enhanced or suppressed) by a cross modal stimulus of the other modality. The crucial point here is that a unisensory stimulus of the second modality does not necessarily induce an appreciable neuron response when acting alone; however, it can modulate the response to the other modality during a cross-modal stimulation (i.e., a stimulation involving stimuli of both modalities). It is probable that several neurons in the primary cortices (traditionally considered as purely unisensory) exhibit this particular kind of multisensoriality.

MULTISENSORY INTEGRATION

Now, imagine that you look for a friend in a large crowd, it is easier to find your target if that person waves his/her arms and shouts loudly. To help you complete this search task more rapidly, information from different sensory modalities (i.e., visual: the waving arms; auditory: the shout) not only interacts but also converges into a coherent and meaningful representation. These interactions and convergences between individual sensory systems have been named generally multisensory integration.

More precisely, multisensory integration corresponds to the neural processes that are involved in synthesizing information from cross-modal stimuli (i.e., stimuli from two or more sensory modalities or an event providing such stimuli). Multisensory integration is most commonly assessed by considering the effectiveness of a cross-modal stimulus combination, in relation to that of its component stimuli, for evoking some type of response from the organism. For example, the likelihood or magnitude of a response to an event that has both visual and auditory components is compared with that for the visual and the auditory stimuli alone. At neuronal level, multisensory integration is defined operationally as a statistically significant difference between the number of impulses evoked by a crossmodal combination of stimuli and the number evoked by the most effective of these stimuli individually. Multisensory integration can therefore result in either enhancement or depression of a neuron's response. In principle, the magnitude of multisensory integration is a measure of the relative physiological salience of an event. In this sense, we can define multisensory enhancement such as a situation in which the response to the cross-modal stimulus is greater than the response to the most effective of its component stimuli.

Multisensory integration can occur across multiple neural levels (i.e., subcortical levels, primary cortical areas and association cortices, and lowest cortical levels), which indicates

that multisensory integration can be modulated by a variety of factors. Moreover, previous studies have shown that the intensity, temporal coincidence, and spatial coincidence (Spence, 2013) of multisensory stimuli are determinants of multisensory integration. Although multisensory integration is typically considered an automatic process, it can be affected by top-down factors, such as attention (Tang et al., 2016).

Multisensory associative areas in the brain. Based on the idea that multisensory processing is hierarchically organized, traditional studies focused on the search for associative brain regions containing neurons responding to stimulation in more than one modality. These regions receive feedforward converging inputs from sensory-specific areas of the brain, thus allowing the merging of information from different senses. Multisensory neurons of this type have been found in the parietal cortex (i.e., ventral intraparietal areas), frontal regions (i.e., ventral premotor cortex), and posterior temporal lobe (caudal superior temporal polysensory region).

An associative multisensory system of the cortex that has been studied in detail is that involved in the formation of the peripersonal space (i.e., the space immediately surrounding the body). Neurons in a network of fronto-parietal structures (ventral premotor cortex, ventral intraparietal area, putamen) have been shown to respond both to tactile stimuli on the monkey's body part (i.e., arm, face, torso) and to visual and/or acoustic stimuli presented close to the same body part. These unimodal signals are first processed in primary brain areas and then converge into such multisensory fronto-parietal areas. The visual and auditory RFs of the fronto-parietal multisensory neurons are in spatial register with the tactile RF, moving as the body part is moved in space (i.e., visual/auditory RFs are organized in body part centered coordinates). Neuropsychological studies in patients with posterior-parietal or frontal lesions and functional imaging studies have revealed the existence of a human multisensory system (in premotor and posterior-parietal cortex) structurally and functionally similar to the one observed in monkeys. In this sense, interventions should be aimed at stimulating through tactile stimuli, accompanied by visual and auditory ones; for example, sequentially stimulating each finger of the hand with a brush, while naming them and visually perceiving the pressure of the brush on the finger.

This multisensory system is thought to mediate some effects observed at behavioural level. In particular, combining a tactile stimulus on a body part with visual/auditory stimuli close to the same body part enhances tactile processing either by improving tactile detection, or increasing tactile reaction time, or even improving tactile spatial acuity. Importantly, in agreement with the inverse effectiveness rule, visual (auditory) information enhances tactile processing especially in case of low effective tactile stimuli (e.g. in situations of sensory/attentive deficits or in conditions of ambiguous/weak stimuli).

MULTISENSORY INTEGRATION IN PRIMARY CORTICAL AREAS

The traditional view assumes that unisensory stimuli are processed separately in the primary cortical areas, without a significant cross-modal interaction, and that multisensory processes are deferred to higher associative cortices by virtue of feedforward convergence from multiple unimodal areas. Recent evidence suggesting that multisensory cross-talk does also occur at the level of the primary cortex, and that the primary cortices of the visual, auditory and somatosensory systems have a multisensory function (Ghazanfar & Schroeder, 2006). Some studies refer to the multisensory properties of the auditory cortex showing both visual and somatosensory influences on auditory neurons (King & Walker, 2012; Musacchia & Schroeder, 2009). These influences are mediated by anatomical convergences of visual and somatosensory inputs and are critically related to the temporal dynamics of sensory responses. Other studies have analysed the effect of audio-visual stimuli on the somatosensory cortex revealing that some somatosensory neurons respond both to audio-visual cues and tactile stimuli (Zhou & Fuster, 2000, 2004), based on anatomical connections between the auditory cortex and several somatosensory areas.

But, what is the functional implication that multisensory convergence may have on the perceptual experience? Two main hypotheses have been formulated. First, multisensory convergence may help the improvement of the ambiguous perception, on the basis of other less ambiguous inputs (ex: watch a news item on TV and the sound of the interlocutor is presented with a delay). Second, the perception of one modality may predispose the other modality, thus enhancing its response to a following input (i.e., viewing a glass falling to the floor can predispose the auditory cortex to the subsequent crash sound).

There are some types of behavioral outcomes which, when discordant information between senses appear and perceptions during multisensory integration occur, can become perceptually illusory, demonstrating the merging of information across senses. For example:

- Ventriloquism effect (Hairston et al., 2003) https://www.youtube.com/watch?v=kFJLY6a-3zy4
- McGurk effect (McGurk and MacDonald, 1976) https://www.youtube.com/watch?reload=9&time_continue=2&v=G-lN8vWm3m0&feature=emb_logo
- Freezing effect or rubber had illusion (Vroomen and de Gelder, 2000) https://www.youtube.com/watch?v=sxwn1w7MJvk
- Double-flash or sound-induced flash illusion (Shams et al., 2000) https://www.youtube.com/watch?v=D3Z1cxA2Tp0

The second type includes multisensory performance improvement effects, such as the redundant signals effect, in which responses to the simultaneous presentation of stimuli from multiple sensory systems can be faster and more accurate than responses to the same stimuli presented in isolation.

MATURATION OF MULTISENSORY INTEGRATION

In the most multisensory areas the capacity to integrate stimuli of different modalities into a better percept is not present at birth, but progressively develops during life. This phenomenon has been especially studied in the SC. Immature cells in the SC may exhibit some multisensory behaviour (i.e., to respond to stimuli of different modalities), but are unable to integrate inputs of different modalities (i.e., do not show multisensory enhancement and depression). Moreover, the acquisition of integrative capacities strictly depends on the experience of cross-modal inputs during development. It is believed that the acquisition of these integrative capacities depends on the formation of descending afferents from two extraprimary cortical areas, the Anterior Ectosylvian Sulcus (AES) and the rostral part of the Lateral Suprasylvian Sulcus (rLS). When these descending inputs are blocked, the SC loses its integrative capabilities. Similarly, the representation of peripersonal space in the parietal cortex is not fixed but it is highly plastic and can be modified by the experience. In particular, it has been shown, both in monkeys and humans, that after a training period consisting of using a tool to reach the far space, visual-tactile interaction (or auditory-tactile interaction), normally limited to the space around the hand, extends to the space where the tool was functionally used.

In this section, we proposed a comprehensive framework for the understanding of principles of synaptic integration based on synaptic properties as the neuroplasticity and the multisensory integration processes at different brain levels (superior colliculus, multisensory associative brain areas, multisensory integration in primary cortical areas). The brain's ability to integrate multiple information from different sensory modalities is fundamental for accurate sensory experience and efficient interaction with the environment.

In the following sections, we will be able to discuss how the application of these neurophysiological principles could be related to the benefits of sensory stimulation in Snoezelen multisensory environments. But the therapeutic effects will not be generated by the mere use of this room therapy, if not that they will be associated with an adequate design of the therapeutic intervention appropriate to the person's conditions and their physical, psychological and emotional (anxiety and depressive disorders) conditions, including their mental health (quality of life, stress) and possible derived neurological (neurodevelopmental disorders such as autism spectrum disorders, ADHD; acquired brain damage; neurodegenerative diseases such as dementias, and movement disorders; epilepsy; cerebral palsy) and mental disorders (schizophrenia, bipolar disorders, conduct disorders, etc).

Through an updated bibliographical review, the results of some investigations on the application of Snoezelen multisensory stimulation in different groups are presented. Our target is to show both the benefits of the intervention and the limitations that these studies describe.

We anticipate that it is not easy to find research that meets methodological and scientifically rigorous criteria, since in most of the works the implementation of the sensory stimulation process centered on the person prevails. This makes us consider rigorous research in this discipline to avoid biases/errors in its application, demonstrate its usefulness, efficacy and replicability more objectively.

The bibliographical review on the benefit of multisensory stimulation has been organized in four groups, the first is in that of women, future mothers, during childbirth and in the stimulation of premature babies or what we call perinatal psychology. Another section is the research on Snoezelen multisensory stimulation in its application in emotional well-being and in people with mental health problems. The third group that we address are people with neurological problems such as dementia or brain damage. Finally, we present a bibliographical review on the application of Snoezelen in neurodevelopmental problems, autism spectrum disorder and intellectual functional diversity, mainly.

3.2 SNOEZELEN AND PSYCHOLOGY

3.2.1 SNOEZELEN AND PERINATAL PSYCHOLOGY

In this section we collect some of the research that has been carried out in the last six years on the benefit of Snoezelen rooms at the time of delivery and postpartum in order to improve the level of well-being of mothers and their babies. Another large field of research is MS in the development of premature babies and its benefit in aspects as diverse as weight gain or pain reduction in the face of invasive tests. Let's start with the Snoezelen app at the time of delivery.

An innovative field in the application of Snoezelen is the one of future mothers at the time of delivery. Nilsson et al. (2020) carried out a review of the articles published on the importance of the design of the hospital delivery room, in the well-being and health of mothers. Although one of the conclusions of the bibliographic review is the lack of research on the subject, they summarize that the research has identified four aspects of the physical environment that have a positive impact on the physical and emotional development of future mothers during childbirth: Distracting stimuli and the level of comfort and relaxation of the room, the ambient temperature, the familiarity characteristics of the environment and the decrease of an instrumentalized environment.

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In this sense, Manesh, Kalati and Hosseini (2015) in Iran investigated the possible benefit of giving birth in a Snoezelen room. To do this, they randomly chose 20 women about to give birth and they were divided into two groups of 10. The delivery of the experimental group took place in a Snoezelen room and the delivery of the control group in a conventional delivery room. Their aim was to determine the effect of the Snoezelen room on the first and second stages of labor. The perception of pain intensity, perineal status, and number of cesarean sections were evaluated in each studied group. A visual analogue scale was used to evaluate the pain. The results indicated a decrease in pain in the experimental group, both in the first and second phase of labor. There were no significant differences in the number of cesarean sections and the Apgar test score in the babies. They came to the conclusion that the delivery assistance in Snoezelen rooms decreases the level of pain of mothers.

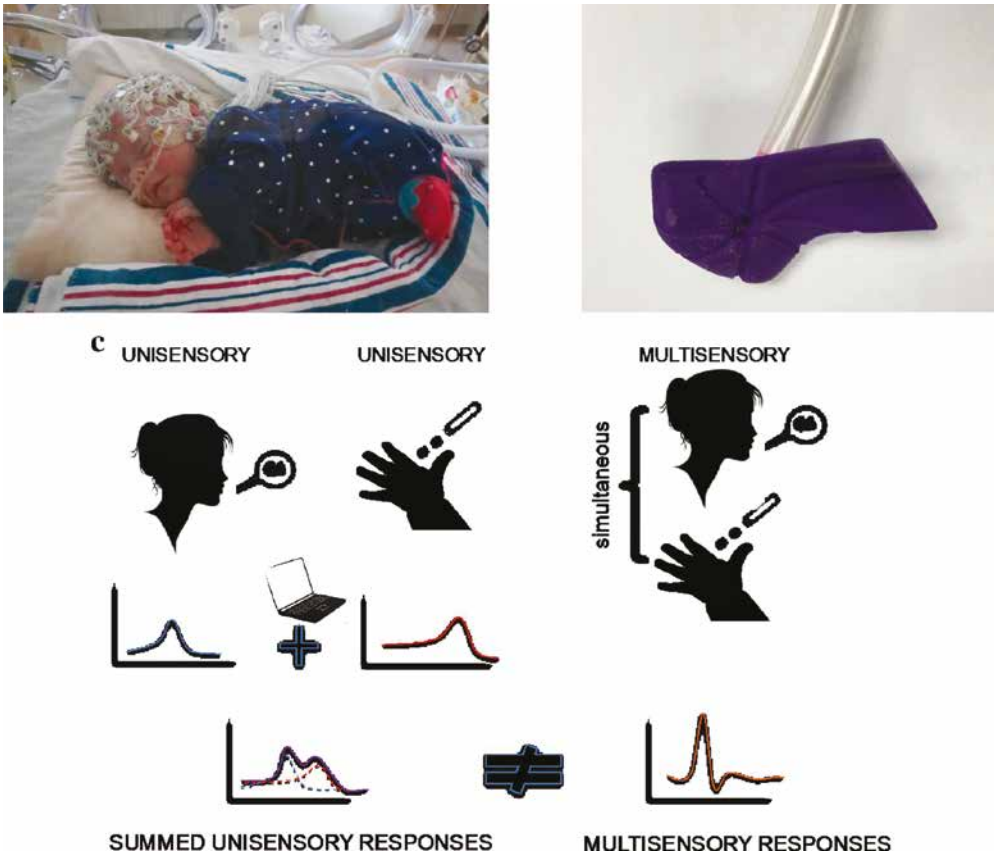

Diagram 12: Images of uni or multisensory stimulation (Maitre et al., 2020).

In the field of early intervention in newborn babies, the results of multisensory stimulation are generally positive in terms of a decrease in physiological parameters in the baby, which can be associated with calm and well-being. Nasimi et al. (2020) for example, investigated the effect of multisensory stimulation on physiological parameters in 80 newborn babies with a gestational age between 34 and 36 weeks. The design is a double-blind clinical trial with pre-post evaluation of heart rate, respiratory rate, and blood pressure. The results in the experimental group show a decreasing trend in the average of all the physiological indices evaluated during and after the multisensory intervention with respect to the indices prior to stimulation. In contrast, in the control group there were no significant changes. Therefore, the study concludes that multisensory stimulation in premature babies produces a decrease in heart and respiratory rates, as well as stability of blood pressure. Along the same lines, Kanagasabai et al. (2016) look at the behavioral responses to sensory stimulation of 25 preterm infants with a mean age at delivery of 32.7 weeks. A program consisting of auditory, visual, tactile, and vestibular stimulation was applied for 12 minutes a day during 10 days. Behavioral responses and physiological vital sign responses were recorded.

Fig. 55: Image on tactile stimulation to newborns (Modi et al., 2018).

65% of the behavioral responses were observed during the massage and among the behaviors observed, the extension and flexion of the extremities and yawning stood out. The researchers conclude that behavioral responses indicate better alertness, although their interpretation is complex because it could also indicate stress.

Regarding the benefit of presenting multisensory stimuli to premature babies, Maitre et al. (2020) compared neonatal multisensory processing in 61 preterm infants (less than 37 weeks) and 55 full-term infants, to predict sensory reactivity at one and two years of life. To do this, they recorded their EEG during the presentation of unisensory – auditory and tactile – and multisensory stimuli. Preterm infants showed a difference in neural response between unisensory and multisensory conditions, in favor of the last ones, while there were no such differences in full-term infants (Diagram 12). It will be interesting to compare these results over time, following their longitudinal design.

Another interesting study for our knowledge in premature newborns is that of Modi et al. (2018) in India. This group investigated the relationship between weight gain in preterm infants and multisensory intervention in a sample of 30 babies born between 32 and 37 weeks of gestation, with a birth weight between 1.5 and 2.5 kg. They were randomly divided into an experimental group and a control group. The experimental group received auditory, tactile, visual, and vestibular stimulation for 15 minutes a day over a period of

10 days (Fig. 55). The control group received conventional care from the premature unit. Weight measurements were taken three times: The first, the fifth, and the last day of the intervention. A statistical treatment with ANOVA was applied. There was a significant difference in the weight gain of the experimental group between the first and last day, so between the fifth and last day.

In conclusion, multisensory intervention is appropriate to improve the weight gain of newborn babies in comparison to conventional care.

We take advantage of this section to recall a study on the benefit of MS in another very interesting area, the one of pain reduction in neonatal care. Zeraati et al. (2017) studied the effect of MS on pain in an eye exam to detect retinopathy in premature babies with a mean gestational age of 30.5 weeks. The research design was a double-blind randomized trial. 80 babies were divided into control and experimental groups. In the experimental group, 15 minutes of sensory stimulation – tactile, visual, auditory and gustatory – was carried out before the start of the eye exam. The pain severity questionnaire (PIPP) – heart rate, oxygen saturation, eye contraction, eyebrow movement and nasolabial fold – was recorded at three moments, before, during and after the examination in both groups. Pain was more intense in the control group than in the experimental group, thus confirming MS as a form of pain reduction in ocular examination in premature babies. Finally, we refer to a recent study by San José and Asensio (2020) in Spain, on the assessment of EMS by 28 professionals who used Snoezelen in the early care of children between 2 and 6 years of age with different functional diversities. Among the conclusions, we can highlight a positive assessment of the rooms in terms of the level of activation and participation achieved and its relationship with progress in learning. Regarding the functional diversity that receives the greatest benefits in its general development, cerebral palsy is considered, followed with very little difference, by ASD, visual functional diversity, and Downs Syndrome. Regarding the areas of development that present the greatest benefits of EMS, the perceptual area is considered first, followed by the communicative and cognitive areas.

In summary, the bibliographic review on multisensory intervention and Snoezelen in the perinatal field and early care, points to benefits both in terms of the emotional well-being of mothers at the time of delivery and that of premature babies and those with functional diversity. For this reason, in our opinion, it becomes one of the most promising future areas of Snoezelen intervention.

3.2.2 SNOEZELEN, IMPROVEMENT OF EMOTIONAL WELL-BEING AND MENTAL HEALTH PROBLEMS

In this section we will carry out a review of recent articles on the Snoezelen intervention to improve emotional well-being in the general population and in people with mental health problems and psychological disorders of different kinds. We show a selection of

investigations carried out, some of them with more evidence and others that suggest the importance of continuing with the investigation.

Cavanagh et al. (2020) carried out research trying to show how self-management strategies improve positive emotions, generate stress control and improve people's well-being. Different strategies are evidenced as generators of well-being, such as: Mindfulness, physical exercise, lifestyle changes, etc. But among them the sensory strategies stand out as generators of greater emotional well-being in a person. Offering the person environments with pleasant sensory experiences and access to natural environments has been proved to improve well-being. For example, visual, tactile, and auditory sensory inputs decrease stress levels. There is increasing use of environments, such as sensory rooms, built specifically to provide users with access to sensory information for the purpose of self-management. These rooms engage the senses to aid sensory modulation, which is a neurological function. Considering the relationship between affect, stress, and sensory processing in the general population, further research on sensory rooms could provide valuable information on the potential self-management benefits of sensory rooms for public health.

Cavanagh's article features the creation of Sensory Art Rooms, an immersive environment that generates varied sensory inputs, on a university campus. An investigation was carried out in which free access is offered to students and teachers in this environment, in order to manage stress levels. The 224 participants responded to a survey on self-perceived levels of emotional well-being. It was shown that the creation of positive sensory events is a beneficial strategy to improve well-being in the long term. The significant increase in positive effect among the participants in this study suggests that the Immersive Art Sensory Environment is an effective strategy to regulate (create, maintain, and enhance) positive emotions. The relationship between engagement strategies and adaptive functioning and well-being, including a greater increase in positive emotions and a decrease in negative emotions and stress in both traits. These emotions serve as indicators of effective positive emotion regulation strategies with short- and long-term well-being benefits.

This study was the first to assess the effects on adults in non-clinical settings of time spent in sensory rooms. The results suggest that this may be an appropriate health promotion intervention. Artfully designed multi-sensory interventions could be incorporated into environmental design to provide effective opportunities for self-management. The transdisciplinary nature of this research reinforces the valuable contribution that the arts can make to public health and well-being.

Sakamoto et al. (2019) also focused on the benefit of snoezelen on work capacity and stress reduction in students. They showed the effects of "unisensory" stimulation (single sensory) and "multisensory" stimulation (combination of several sensory stimuli). Unisensory stimulation (auditory or olfactory or visual or gustatory or thermal…) generates cognitive and affective effects. Multisensory stimulation can cause the same effects, but it is expected to be more reinforced. The aim of this publication is to investigate the effects of multisensory stimulation on work capacity and stress management.

A first study was carried out with eight 22-year-old students in a situation that generates anxiety (solving mathematical problems). First they were offered separately, visual and then sound stimulation. For multisensory stimulation, lighting was combined with auditory stimulation, setting up three experimental conditions and one control condition: Green light and a background of murmur, green light and no sound, normal white light with a background of murmur, and normal white light with no sound. The duration of each condition was three minutes. They provided rest intervals equivalent to two minutes of normal white light and no sound conditions, this between each of the four conditions. To avoid order effects, the order of presentation of the four conditions was balanced. A second study combined olfactory and visual stimuli. An aroma of mint was used as the olfactory stimulus. The experimental conditions were tested with and without mint aroma. The mint aroma was generated by means of an aroma diffuser with peppermint oil. The mint aroma was expected to reduce errors in arithmetic calculation and improve the mood of the participants. The same color-changing LED lamp used in experiment 1 was used. As a pre-experiment, the participants adjusted the color of the LED to match the mint scent as they envisioned it. Then, a green light was selected. The lighting stimuli were green light and normal white light and were presented to the eight participants via the LED desk lamp, which was placed in front of each participant.

For multisensory stimulation, light stimulation was combined with olfactory stimulation under three experimental conditions: mint-scented green light, unscented green light, and mint-scented normal white light, and a control condition: Normal white light without smell. To avoid order effects, each condition was carried out on different days.

The findings suggest that the effects of multisensory stimulation cannot simply be explained as the cumulative effects of single sensory stimulation. They conducted this study to confirm whether the affective effects of multisensory stimulation differ from the cumulative effects of combined forms of single sensory stimulation, and indeed found that the affective-reinforcing effects cannot simply be explained as the combined effects of multiple types of unique sensory stimulation.

In another investigation, Bachand et al. (2010) proposed a project on the Snoezelen effects in an institution with young people at social risk. Its objective was to offer young people the opportunity to “find” themselves, connect with themselves, and offer professionals the opportunity to get to know the young person from another perspective. The sessions depended on each case, some were more focused on stimulation or relaxation. The duration of the session depended on the desires and needs of the person, and usually took less than an hour.

Initially, the effect of the Snoezelen intervention with young people at social risk and behavioral disorders focused on promoting relaxation, autonomy and communication, but over time it has gone further. The importance of Snoezelen in the development of verbal and non-verbal communication between the young individual and the professional has been seen. The mutual trust and understanding improved, and therefore the mutual aid relationship. For the professional, the environment in Sala Snoezelen offers the opportunity

to observe the young person from another place, enhancing authentic understanding. At the same time, the young person also sees the professional from another perspective. Both can leave the familiarity of the daily routine, and are able to know and understand each other in a different way, giving the opportunity to see in the other some parts that are more difficult to show and observe on a day-to-day basis.

The environment of the Snoezelen Room must be very well designed, in such a way that it favors rapprochement and approximation, from the security and trust between both.

Young people at social risk and with behavioral problems frequently present situations of family conflict, difficulty in body control, impulsiveness, and sub-conscious feelings of guilt.

Initially, in the Snoezelen Room, irritability, stress, fatigue, etc. are observed in these young people. In the sessions, young people are "invited" to connect with their difficulties, their family, their self image and their behaviors. These people, in comparison to the people with disabilities, do not present intellectual or motor functional diversity and are able to communicate through words. But in both cases, there are usually emotional difficulties. These processes will be followed: presentation of the room, the teams and their experiences; acknowledgement of the effects of the equipment; use of non-directive equipment.

One purpose of this intervention is that it generates peaceful communication between the young person and the professional, which creates new channels of communication and facilitates the expression of new facets of the personality. The room must be warm and pleasant and easy to adapt according to the session.

The session must be to the liking of the person, therefore, they must be able to choose preferences.

The young person chooses their preference, participatory and non-participatory observation; feedback from the individuals about their experience. The quality of the professional's presence, their supervision, listening and indications will be the fundamental ingredients in accompanying the young person during the session.

The professional will measure his intervention accordingly.

The professional will observe, not overshadow, question, correct or direct the young person, neither be the "morality".

Moreover, the professional will guide, modulate, adapt, be confident and supportive. Snoezelen will bring approximation, stress management, expression of emotions, emotional communication, and greater relaxation.

In another professional context, that of health, Collier et al (2018) carried out a study with a sample of 16 nurses – ages between 24 and 61 years – who worked full-time in Mental Health services including people with Alzheimer's. It was a population subject to high levels of stress and anxiety, also cases with burnout. The study promoted research on the effect of multisensory stimulation in reducing stress levels. The hypothesis was that the group of nurses who participated in the Snoezelen sessions would have lower

stress levels and a lower heart rate than those who remained resting in the nursing staff room. They were randomly divided into two groups of 8 people, one group went to the multisensory room for a total of 8 sessions of 30 minutes duration and the control group would stay in the usual rest room of the hospital. Physiological recording of heart rate, the state-trait anxiety inventory (STAI) and mood using the Profile of Mood States (POMS) were evaluated before and after each session. In the experimental group, they were asked about their sensory preferences in order to individualize the environment of the Snoezelen room (aromatherapy, ambient music, tactile stimuli of their liking and light with preferred colors). The nurses were left alone in the Snoezelen room, once the investigator had accompanied them and prepared the room. At the end of the 8 sessions, a satisfaction questionnaire prepared by the researchers was applied. The results showed a greater decrease in the pre-post pulse in the experimental group and a post pulse rate that decreased throughout the sessions. Minimal differences were found in the scores of the anxiety and mood scales, although the experimental group expressed high rates of satisfaction with respect to the intervention, its benefit in reducing stress beyond the intervention, and its positive impact on the relationship with patients and the creative resolution of labor conflicts. It is concluded that sensory stimulation in Snoezelen rooms are effective as a therapy to relax non-clinical populations that experience work stress, such as nurses in psychiatric units.

The results suggest that Snoezelen can quickly reduce stress without the need for special training, unlike biofeedback or yoga. Qualitative data suggests that the clinical benefits of the Snoezelen intervention extend beyond actual treatment sessions. Nurses reported additional benefits from Snoezelen in relation to better patient care, improved interpersonal relationships, and increased problem solving that requires creativity or imagination at work. The results support the role that positive emotions play in amplifying and constructing adaptive response options in contextual settings and when interacting with people. This is important, as nurses are encouraged to provide emotion-based care to many special needs populations, such as older people with dementia. The findings suggest a potential cost-effective strategy, a single Snoezelen room can be used for both patients and staff providing care to individuals.

The findings suggest that Snoezelen may improve psychological well-being by reducing anxiety more than the nursing unit lounge. Both groups reported a reduction in anxiety. This is related to the effects of stimulus control. Both the unit lounge and the Snoezelen treatment room remove nurses from their stressful work environment and, in turn, negative and consequential antecedent stimuli. These results demonstrate that the reduction of negative antecedent and consequent stimuli is useful in reducing anxiety and improving nurses' mood. However, Snoezelen seems to be more effective in reducing anxiety than simply changing the environment.

Another field of Snoezelen application is the reduction of anxiety in people who are part of palliative care programs. Schofield (2009) investigates the potential of a Snoezelen room in relaxing people with cancer and chronic pain. The sample is made up of 26 patients with a mean age of 66 years. The patients were randomly assigned to an experimental and control group. The experimental group did two Snoezelen sessions while the control group patients were in a quiet room overlooking the garden. The patients in the experimental group were alone in the Snoezelen room knowing that they could call the professional through a switch. In the Snoezelen room, visual stimuli were offered with fiber optics, a waterfall of color changes on the floor, projection of colored oils on the walls and calm music. The HAD tests were administered to assess anxiety and depression and the EORTC QLQ-C30 to assess quality of life, before and after the intervention. The results indicated a significant reduction in anxiety in the experimental group, but no changes in the perception of quality of life were observed. For this reason, Schofield raises the benefit of Snoezelen to reduce anxiety in palliative care.

Seegers et al. (2019), in a descriptive study, shows the effect of Snoezelen sessions in people with mental illness in terms of pain management. Pain, according to the authors, has sensory components (quality, intensity, location, duration...), cognitive components (what the patient thinks and says about pain, his or her history of experiencing pain), affective-emotional components (what causes pain to the patient), behavioral components (how the patient behaves in the pain situation).

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In people diagnosed with schizophrenia, a study published by Shahgholi et al. (2012), tries to demonstrate the effects of sensory intervention in a Snoezelen room on perceptual and cognitive functioning (registration, attention, calculation, memory, temporal orientation, spatial orientation, perception and visuomotor organization) as well as emotional aspects. (anxiety, tension and depression). The publication reviews various articles that show how

the person with schizophrenia frequently presents alterations in sensory processing, a fact that leads to alterations such as anxiety or depression. The study is carried out in Iran, with patients diagnosed with long-term non-paranoid schizophrenia and aged between 40 and 60 years. A series of tests are carried out before starting the program of sessions in Sala Snoezelen. The sessions are planned in such a way that they are pleasant for the patient, with free choice, not directives. The control group that participates in the sessions begins with individual sessions guided by the occupational therapist. In the first sessions, the therapist shows the materials, how they work and accompanies the person. Afterwards, freedom of choice is offered to the person in managing the room. The sessions are organized into: Welcome, review of what was done in the previous session, interaction with the sensory equipment, expression of how the person has felt during the session. After 3 months of intervention, the results comparing the scores between the experimental group and the control group did not show significant differences in the perception-cognition of the patients. Regarding the attention and concentration capacities, perhaps the activities that were carried out for the assessment should be reviewed and also the fact that capacities were not significantly affected. In the memory activity, the experimental group did not show a difference before and after, whereas the control group after 3 months presented a decrease in the memory score. No significant differences were found between both groups or pre and post in terms of spatial and temporal orientation, probably due to the effects of the long institutionalization of the patients.

It is valued that the effect of institutionalization, the limitation in the time of access to the Snoezelen Room and the fact that most of the hours of the day are spent in an impoverished and routine environment, can produce this little significance in the results. In other words, institutionalization, the environment, the routines would weigh more on the effects on brain plasticity than a short intervention in a multisensory room.

Therefore, the authors conclude that the non-significant results of the snoezelen intervention in the perceptual-cognitive abilities and in the mood of the person can be explained by the reduced choice option of the patients, the short time of the intervention and the strong impact of institutionalization and its routines and environments. The study concludes by encouraging further research that lasts over time and by introducing other interventions such as family therapy or supportive therapies into the snoezelen sessions, in order to better observe and assess the effects of sensory intervention.

Lastly, we highlight the work of Wilson (2020). Wilson wrote a graduate thesis in which he reviewed the literature on recent publications on the effect of multi-sensory rooms on people with mental illness. After mentioning various studies carried out in different countries, the thesis concludes by establishing that many recent studies in neuroscience show that the person with mental illness presents alterations in sensory processing. Cognitive gains and improved occupational performance can be achieved through interventions that

target sensory processing skills. Sensory rooms allow a variety of people to experience the positive effects of sensory modulation therapy. Studies indicate that sensory rooms can be effective methods in inpatient psychiatric settings to reduce seclusion and restraint practices and help patients manage their psychiatric symptoms. In Wilson's review of publications, it is noted that there is no clear pattern in the use of multi-sensory rooms. Patients have been allowed to use the sensory rooms individually, in groups or accompanied by trained professionals. Each of these circumstances presents a unique opportunity for further research, as well as potential concerns. Sensory rooms have been shown to improve patient-therapist relationships as well as patient empowerment; however, more research is needed on these effects. In addition, the effects on peer relationships among patients using the sensory rooms together are very poor, raising concerns about patient safety. Feelings of paranoia and jealousy were identified among patients using the sensory rooms together, and recommended that this be considered.

Further studies could determine whether, under the right circumstances, sensory rooms are appropriate for facilitating peer relationships. They cite a study by Wigglesworth and Farnsworth (2016) in which they reported that patient distress scores decreased more on average if sensory room sessions were initiated by the patient, rather than by a staff member. This phenomenon should be carefully monitored in the future, as it may indicate the need for additional patient training and empowerment regarding the use of the sensory room. If more patients become aware of their ability to self-manage and the potential positive effects, they are more likely to initiate its use on their own and experience a greater reduction in distress. Many studies report that women use sensory rooms more than men on average.

This paper concludes by saying that nurses have proven to be instrumental in the development of today's "sensory room". Nurses are at the forefront of delivering safe and effective patient-centered care. They have earned the right to be called the "most trusted professionals". It is nurses and certified nursing assistants who accompany patients in the sensory rooms most of the time.

The majority of articles investigating sensory rooms in the patients' mental health setting have been published in nursing journals, a testament to the professions' dedication to promoting innovative evidence-based practice. For this reason, we think that both nursing and psychology professionals are the ones who will further promote sensory rooms in the field of mental health.

NEXT, WE WILL DWELL ON THE BENEFITS OF SNOEZELEN IN THE FIELD OF NEUROLOGICAL PROBLEMS:

3.2.3 SNOEZELEN INTERVENTION IN NEUROLOGICAL DISORDERS

Some studies have investigated a wide range of positive effects and reduction of symptoms associated with neurological diseases in SNZ intervention. There are multiple works that perform subjective observations and collect qualitative data, but these data do not provide objective measures for understanding the mechanisms underlying SNZ multi-sensorial stimulation and therefore further efforts are needed to systematically analyze and quantify the effects of SNZ environments. To date, little is known about long-term benefits and systematic quantification of positive effects, either through psychological measures (psychometric tests), neuropsychological performance (neuropsychological test/battery) or neurophysiological recordings (neuroimaging techniques).

In the last decades, there has been a growing interest in the effects of SNZ intervention in neurological diseases. Particularly, multiple works have focused their aims on the use of SNZ multi-sensory environments in patients with acquired brain damage (cerebrovascular accident, traumatic brain injury, brain tumors and infectious brain disease), neurodegenerative diseases (dementias, movement disorders, etc.) and other neurological disorders (epilepsy, cerebral palsy) (Diagram 13).

Multi-sensory stimulation induced by SNZ environments has been applied to a wide range of pathological conditions in people that have suffered brain damage. Poza et al. (2013) investigated the effects of a multi-sensory stimulation session carried out in a Snoezelen room in mild to severe brain injury patients. This work compared electroencephalographic (EEG) activity in subjects with multiple brain-injuries and healthy controls during a single multi-sensory stimulation session (several auditory and visual stimuli mixed). Short-term effects which multi-sensory stimulation therapy produces a slowing of EEG oscillatory activity, mainly in the relative power of theta and alpha band, in brain-injured patients compared with controls. This fact may indicate that multi-sensory stimulation in a Snoezelen room induces a positive mood state of relaxation. However, one of the limitations of this study is to know whether short-term benefits are maintained over time. Another concern was that subjects recruited in the brain-injury group displayed a wide range of brain lesions location and extension (61.1 % bi-hemispheric lesions).

In a recent study by the same research group (Gómez et al., 2016), the positive effects of the previously explained Snoezelen intervention (Diagram 14) were evaluated in brain-injured patients, previously classified into subjects with cerebral palsy, traumatic brain-injury and healthy controls. Their results showed a slowing of oscillatory cortical brain activity after Snoezelen intervention. The main changes between pre- and post-stimulation conditions were found in occipital and parietal brain areas; moreover, a reduction of EEG complexity and irregularity of oscillatory cortical activity were found. These changes seem to be related with higher levels of relaxation of the participants.

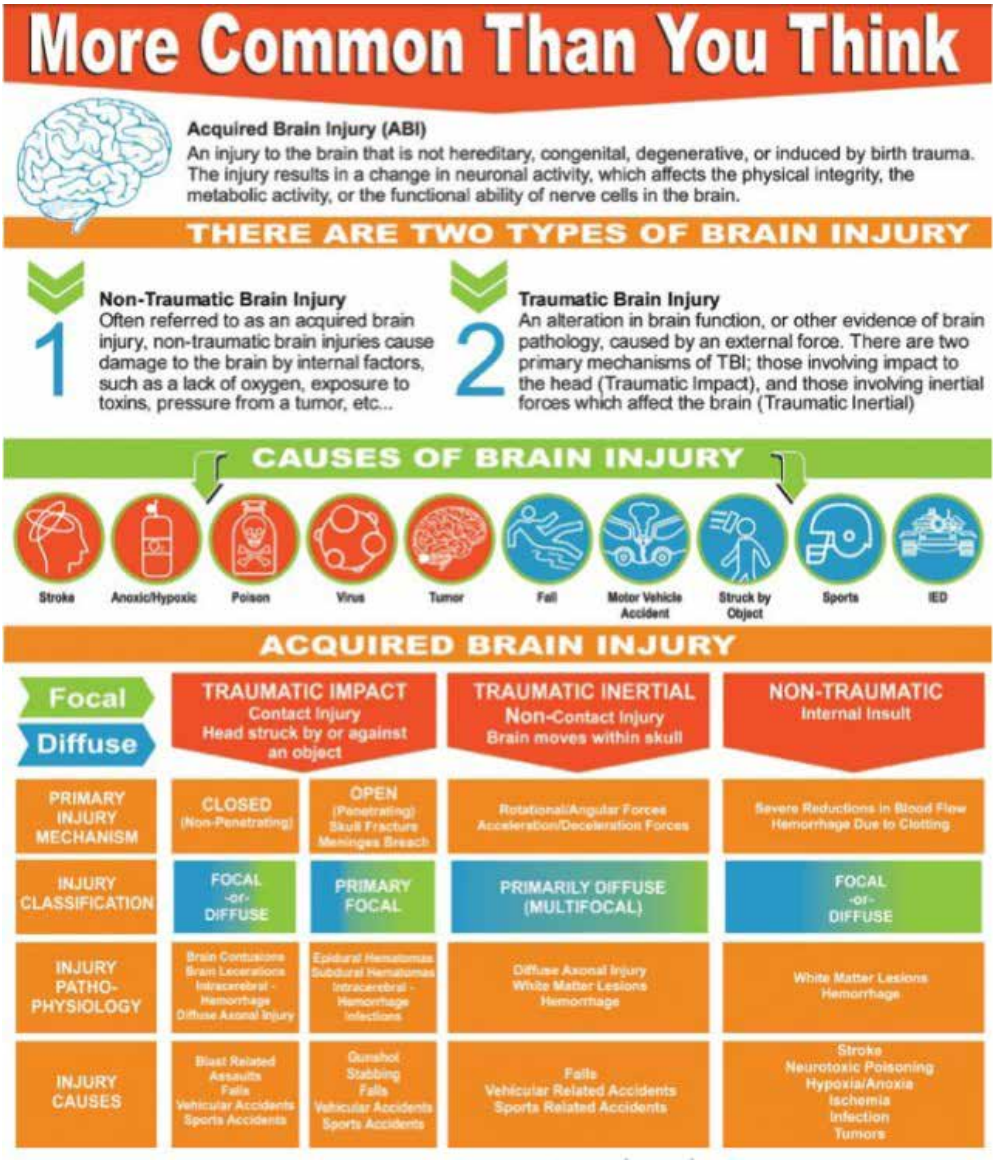

Diagram 13: What is an acquired brain injury? It is a brain injury that has occurred after birth. It is not hereditary, congenital, degenerative, or induced by birth trauma. The injury results in a change to the brain's neuronal activity, which affects the physical integrity, metabolic activity, or functional ability of nerve cells in the brain. Mainly, there are two types of acquired brain injury: traumatic and non-traumatic (https://www.biausa.org/brain-injury/about-brain-injury/nbiic/what-is-the-difference-between-an-acquired-brain-injury-and-a-traumatic-brain-injury).

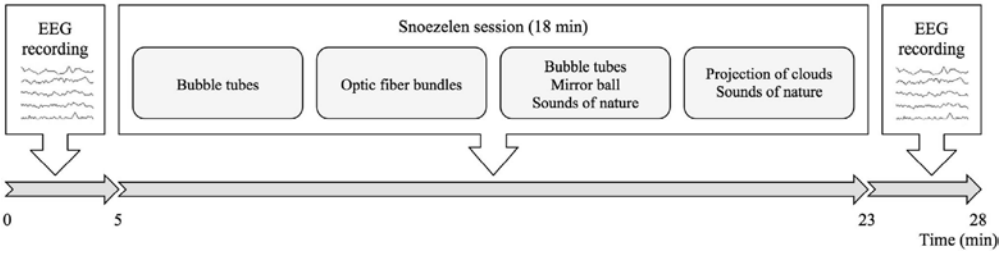

Diagram 14: Diagram of the experimental design (single session of intervention protocol) used in the Snoezelen room (Gómez et al., 2016).

Other research groups have focused on the effects in children and adolescents that suffered acquired brain damage and neurological disorders. One study analyzed the positive effects of multisensory stimulation in children/adolescents (6–17 years) who require complex continuing care from a large rehabilitation hospital, considering that they have limited verbal and physical abilities. Their diagnoses included severe traumatic and anoxic brain injury, refractory epilepsy and chromosomal disorders (Chromosome 8 partial duplication, Pierre Robin syndrome) and they had been hospitalized for extensive periods (8 months–5 years). This work used a single-subject design to compare the difference between TV (A) and Snoezelen (B) interventions (counterbalanced A–B and B–A for 2 weeks) relative to baseline measuring physiological (arterial pulse, electrodermal activity, skin temperature, and respiration) and behavioural (state of consciousness, behavioural, activity level and facial expression) responses (Koller, McPherson, Lockwood, Blain-Moraes, & Nolan, 2018). In general, Snoezelen therapy exhibited significantly more positive behavioural responses than visualization of a preferred TV program, but results for physiological changes were mixed showing only significant changes between sessions on one or two physiological measures in some children. The results are quite variable and inconclusive because the order of the interventions, rather than the particular intervention, may influence the patients' response and these responses may change over time (ex. state of alertness and activity levels depending on the time or the day of the week). These results elucidate the relevance of using multiple methods of evaluation, data collection and objective measures to ensure a more comprehensive assessment of intervention-related outcomes.

During early life some children suffer severe brain injuries from traumatic accidents (called traumatic brain injury or TBI). One study investigated the effects of Snoezelen therapy on physiological, cognitive and behavioral changes in children (1–17 years old) during the recovering process after severe TBI. Snoezelen treatment sessions (30 minutes) running over 10 consecutive days with the following phases each day: introduction to the Snoezelen room, carrying out the session through equipment use, and winding the session down. Results revealed significant changes with pre- and post-treatment measurements for each Snoezelen session

in autonomous responses, such as decrease in heart rate, muscle tension in all the affected extremities and agitation levels (Hotz et al., 2006).

Adults that have suffered brain injury have also been exposed to the effects of multi-sensory stimulation. Some days/weeks after acquired brain damage, sensorial stimulation could improve the neuroplasticity period and induce some changes that can contribute to its repair and recovery process. One quasi-experimental study compared the memory status of patients after acute ischemic stroke during 6 weeks of sensorial stimulation compared with patients in common treatment. Results showed no significant differences between treatments to improve short- and long-term memory (Pedram-Razi, Bassam-Pour, Faghihzadeh, & Alefbaei, 2017). But it is necessary to identify what type of environmental stimuli and for how long it is necessary to apply them to improve the cognitive functions in these patients. Other work analyzed the emotional status with one-single case study diagnosed with hemiplegia due to stroke by the effect of the defoliant exposure. Reversal A-B-A'-B' treatment used in the study started with 30 minutes of physical therapy + 20 minutes of occupational therapy, followed by 60 min of Snoezelen therapy. The treatment had a positive effect changing the unstable emotional state, and improving emotional and cognitive abilities (Lee, Lee, & Kim, 2013).

Another area in which the benefit of EMS has been investigated is in the elderly with dementia. Despite the methodological diversity in the studies, there is a consensus among the scientific community in considering it adequate in the most advanced phases of dementia and especially positive in reducing behavioral symptoms.

The five research papers that we have chosen have been published in the last five years and we have found them interesting either because of their innovation according to the proposed objectives or because of their research design. In this sense, the reader will be able to read about the benefit of EMS compared to other non-pharmacological therapies, the importance of MS in care routines, even how to improve the use of Snoezelen rooms in residential centers for the elderly.

We start with three recent researches in our country. In the first two, the comparison of results between the Snoezelen intervention and other activities such as reminiscence therapy and music therapy is sought. In the third, the benefit of EMS in improving the activation and participation of the person in the environment is investigated.

Solé et al. (2019) compared the benefit of EMS in a sample of 84 people with dementia and different degrees of impairment. The design is quasi-experimental with intra-subject repeated measures. Participants were randomly assigned to Snoezelen sessions – experimental group – or reminiscence sessions – control group. Each group participated in 24 sessions of 30 minutes and a maximum of 3 people participated in each session. As

evaluation instruments, the Blessed dementia scale, Cornell depression scale, Hamilton anxiety scale and Cohen agitation scale were applied, as well as observational records of behavior in each session and video recording of the first and last session. It is concluded that there was a greater decrease in anxiety, depression and agitation in the experimental group than in the control group and that the improvement was more evident in people in mild and moderate stages of dementia.

Maseda et al. (2018) carried out a comparative study on the effects of two non-pharmacological interventions, multisensory stimulation in the Snoezelen room and music therapy sessions, in a group of 21 people over 65 years and with severe or serious dementia. The research design was pre-post, a randomized longitudinal trial which divided the sample into two groups of 10 and 11 people. The intervention consisted of two weekly 30minute individual sessions for 12 weeks. The GDS and musical preference scales were applied. To record the possible benefits of the intervention, the Interact observational scale was used, as well as biomedical parameters of heart rate and oxygen saturation before and after the sessions. Both groups had immediate positive effects on mood and behavior, that is, greater facial expressiveness of well-being and a greater degree of spontaneous verbal interaction and attention. An increase in oxygen saturation and a decrease in heart rate were also observed in both groups. It was concluded that both interventions were effective in this profile of elderly people with severe dementia.

Aznar-Calvo et al. (2019) tried to show the effects of EMS as a non-pharmacological therapy to improve connection with the environment – involvement or engagement – in older people with moderate and severe cognitive impairment, excluding people with severe behavioral disorders in residential centers. The sample consisted of 27 people (15 women) with an average age of 79.33 years and an average Barthel index of 27.59. A total of 40 sessions lasting between 20 and 30 minutes were applied, in a period of five months. The person's sensory preferences were previously assessed to minimize behavioral alterations due to the effects of the therapy. The level of involvement was assessed with the observational scales Observational Measurement of Engagement (Myers Research Institute Engagement Scale) and the implication-engagement register (RIE).

This last record includes implication behaviors such as: Looking at objects, looking at the therapist, touching objects, touching a person, throwing objects and talking to the therapist. Disengagement behaviors include: Sleeping, disconnecting, staring blankly, self-stimulation, and talking to oneself.

The design consisted of categorizing the described behaviors of involvement and/or disengagement, during a period of five minutes before, during and at the end of the intervention. The results show a significant increase in involvement behaviors after a multisensory stimulation program in Sala Snoezelen during the session, and this effect was also maintained after the session. It is concluded that the EMS implementation drastically increases the involvement of the participants and their connection with the environment. In addition, to reduce the psychological and behavioral symptoms of dementia and the cost of associated treatments (medication) in addition to the psychological well-being of the person.

In our opinion, one of the most interesting aspects of the Snoezelen intervention in the residential setting is the inclusion of the Snoezelen perspective or philosophy (Van Weert et al., 2005) '24 hours a day' and especially during the time the person is cared for.

Snoezelen 24 hours supposes a previous training of the whole team of geriatric workers that will revert to the improvement of the overall quality of life, far beyond a specific program in the Snoezelen room.

In this instance, Sposito et al. (2016) set out to investigate the effects of multisensory and motor stimulation during morning care routines, on the behavior of 45 people with an average age of 86 years, who suffered from moderate and severe dementia. For this, a training program was applied to 56 geriatric workers lasting for eight weekly sessions. The training contents were distributed in three blocks, person-centered care, multisensory stimulation and motor stimulation. The methodology was a pre-post training intervention design and a video recording of the non-verbal behavior of the residents was used, so that the level of motor activity and the communicative interaction of the elderly person were recorded during 6 sessions (three before and three after the formation of the geriatric assistant). The recording and subsequent analysis of the behavior was carried out through an ethogram. The result of the pre-post comparison describes that in the post situation, older people spent more time actively participating in their self-care and with fewer interruptions. The increase in the duration of eye contact with the geriatric worker was also significant, and the duration of having the eyes closed was shorter, as well as the sad facial expressions.

It is concluded that the training carried out entails changes in the attention strategies of the geriatric workers and brings benefits in the behavior of the elderly person with moderate and severe dementia.

Finally, as we have already mentioned, we want to echo a study that focuses on investigating the causes of the underuse of Snoezelen rooms in centers 163 / 195 residences for the elderly, a situation that is quite frequent in our context.

Jakob and Collier (2017) in London, observed how the Snoezelen wards of an entity that managed 16 residences that provided care for older people with dementia were underused. For this reason, they set out to investigate the reasons for the success or failure of the use of Snoezelen rooms by professionals. The aim was to develop dementia-focused room design changes that would promote more personalized experiences. The methodological design was qualitative.

Semi-structured interviews were conducted with the staff of each residence, collecting the opinion of a total of 30 professionals. In turn, the opinion of people with dementia was collected and five sessions were recorded on video in the Snoezelen room to analyze them from the perspective of the person with dementia. The characteristics that the professionals associated with a successful and effective Snoezelen space for people with dementia were: comfort, safety, significance of the activities according to their age, relaxing sensory experience, and control and interaction to the best of their ability. As aspects related to a low use of the room, professionals highlighted a room design that was not suitable for older people with dementia and a lack of training on Snoezelen sensory stimulation.

Our experience is very much in line with the study by Jakob and Collier. One of the most frequent reasons for the low use of the rooms is the lack of training on their potential and their management by professionals. But on the other hand, ISNA Spain is observing a growing interest in training, especially in the residential field.

3.2.4 SNOEZELEN IN THE FIELD OF NEURODEVELOPMENTAL DISORDERS

In this last section, we will summarize some research on people with intellectual disabilities and autism spectrum disorder (ASD). Regarding intellectual disabilities, studies with different objectives are collected, such as the benefit of EMS in achieving more adjusted behaviors, for example, at the time of dental care or as a space for relaxation prior to cognitive activities. Another innovative objective in our opinion of the work in snoezelen rooms focuses on the opinion of parents about their benefit and the improvement of the parent-child relationship through the snoezelen sessions.

Regarding the benefit of Snoezelen on adjusted behavior, Potter, Wetzel and Learman (2019) studied the effect of sensory stimulation on the adaptation of 41 adults with profound intellectual disabilities in routine dental care sessions. The level of anxiety, agitation and vital signs of the same subject were compared in a routine dental environment and a visual, tactile, auditory and olfactory sensory dental environment – vibrating dental chair, weight apron, projector, piped music and lavender aroma in the room. The results suggest that anxious and agitated behavior was lower in the sensory environment.

Toro (2019) in Italy, analyzed the benefit of sensory stimulation in a Snoezelen room on short-term memory and balance in people with both intellectual and physical disabilities and those derived from mental health disorders who live in a residential center. The sample was made up of 35 people between the ages of 25 and 72. The research design is repeated measures, intra-individual crossover, in which all the subjects participated in three different conditions: Individual 20-minute relaxation sessions in the Snoezelen room, television watching activity, and control space where the person was inactive. The implementation involved a weekly session for three months. For the evaluation, a digit memory test and the Sharpened Romberg balance test were used. The results indicated that Snoezelen room stimulation significantly improved short-term memory and balance ability, while the activity of watching television or being inactive did not have an augmentative effect. For this reason, Toro concluded that relaxation in the Snoezelen room can be a good strategy prior to the implementation of cognitive and physical activities.

Regarding the use of the Snoezelen rooms as a space for positive interaction between parents and children, Bergstrom, O'Brien-Langer and Marsh (2018) collected the opinion of professionals who work in the FASTRACS program of the Casa Child, Adolescent and Family association. Mental Health of Canada. The FASTRACS program offers support to children and young people from 3 to 18 years of age, with fetal alcohol spectrum disorders (FASD) who present mental health problems, school, social and behavioral problems. Seven professionals were interviewed about the possible applications of Snoezelen stimulation based on their experience in the room. Semi-structured interviews were conducted. In their experience, Snoezelen was effective in the development of self-regulation behaviors, positive parent-child interaction, and parental education on the transfer and generalization of their children's sensory preferences. They recommend the direction of future research in these three areas.

On the other hand, Sachs and Nasser (2009) in Israel, studied the perceptions of parents about their family experience in the Snoezelen room. They used a qualitative naturalistic methodology based on a phenomenological approach. Interviews and two observations of the sessions in the Snoezelen room were carried out with ten families with children between the ages of 4 and 17 who have intellectual disabilities, generalized support needs and live in a residential center. Parents described Snoezelen as a space that allows them to feel through sensory play that they are a family. The components that characterize the description of the Snoezelen experience by the parents are participation of the child with a disability in the family, enjoyment of the siblings and interaction between them. Parents

described how the game in the Snoezelen room allowed them to discover their children's abilities and its impact on a better state of mind for parents.

Next, to close this section, some of the most interesting investigations of the application of this multisensorial methodology in people with autism disorders will be described. The use of multisensory environments is a common alternative therapeutic approach to improve the psychological health, well-being and quality of life of persons with autism spectrum disorder (Brondino et al., 2015). People suffering autism disorders often have difficulties with sensory integration and their senses may be over- or under-reactive to stimulation explaining some of their challenging and maladaptive behaviours. Non-contingent sensory reinforcement that is provided in multisensory environments could evoke a state of reward and relaxation, and this may facilitate redirection of behaviour, increase motivation, sociability and engagement, and decrease motor agitation, non-goal and maladaptive behaviour. Snoezelen rooms have all the environmental conditions to provide the necessary sensory stimuli in a controlled, integrated and therapeutic environment aimed at carrying out effective interventions in autistic patients.

Multisensory environment research studies suggest that Snoezelen interventions have the potential to address challenging and stereotyped behaviours among autism spectrum disorder patients, although the findings indicate that individuals' responses are neither negative or positive between different studies. Now, we are going to explore some published works to know the levels of effectiveness in Snoezelen interventions depending on the experimental design, (Figure 5) characteristics of the patients and behavioural variables registered that are intended to change.

Novakovic et al. (2019) in Serbia, studied the effects of Snoezelen stimulation in adolescents and adults diagnosed with autism spectrum disorder (ASD) and intellectual disability, and especially, in the reduction of stereotyped and repetitive behaviors. The sample consisted of 40 people between the ages of 15 and 35 who lived in a residential center. They were randomly divided into an experimental and control group and the level of stereotyped and repetitive behavior before and after the intervention was evaluated by applying the Childhood Autism Assessment Scale (CARS). The intervention in the Snoezelen room of the experimental group consisted of 36 sessions in groups of 3 people, 30 minutes each, at a rate of 3 weekly sessions for 3 months. The control group participated in the usual activities of the residence. Snoezelen sessions had significant effects on the CARS total score, decreasing repetitive and stereotyped behaviors.

Stadele and Malaney (2001) analyse the effects of a Snoezelen multisensory environment on the reduction of maladaptive behaviours with two autistic young subjects (16/17-year-old girl/boy). A single subject ABA design was used: A Baseline (2 weeks), to establish the current number of target behaviours (aggressive behaviour, self-injurious behaviour, noncompliance, and agitation) occurring in the mornings and afternoons during the school days; B Snoezelen intervention, individual multisensory stimulation for 20 min/day (2 weeks); A Baseline/follow-up (2 weeks). These authors report no discernible change in frequency of maladaptive behaviours from baseline to treatment and to follow-up. Results did not show a clear positive or negative effect of intervention on negative behaviours; however, individual patterns of behaviours were identified for each subject (Stadele & Malaney, 2001).

One experiment developed by McKee et al. (2007) studied the effects of multisensory stimulation in the Snoezelen room on the aggressive and destructive behaviours of three adult participants, men aged 28,31 and 32 years, with autism. An experimental ABAB reversal design was used during 112 days (28 days x 4 phases), where relevant classes of both positive and negative responses were targeted, accompanied by an evaluation of inter-observer agreement. A (baseline 1), first a baseline of the targeted behaviours was recorded (28 days); B (Snoezelen 1), participants were given access to a Snoezelen room (28 days, max. 45 min each day); A (baseline 2), access to the Snoezelen room was eliminated (28 days); B (Snoezelen 2), again access to the Snoezelen room (28 days). During each of these periods, the number of disruptive behaviours (hitting, overturning furniture, hitting windows, banging head, spitting, hitting fish tank, throwing objects, threatening) and prosocial (speaking slowing enough to be understood, assisting staff with a task, using words to communicate, shaking hands or giving high-fives, making eye contact when speaking) was recorded.

Results did not show a decrease in the aggressive and destructive behaviours of participants, suggesting that the Snoezelen room was associated with either no clear pattern or an increase in disruptive behaviour (one participant), although there was a trend towards more prosocial behaviours by all three patients during Snoezelen interventions compared to baseline, but without a consistent pattern. These findings suggest that many methodological aspects should be considered before claiming of any supposed significant effect of the multi-sensory rooms. For example, in this study, the Snoezelen sessions were following the time schedules of the Institute. This could have had the unexpected effect of reinforcing patients' negative behaviours. Furthermore, the fact that the room was available only at certain times could have caused frustration to the patients, decreasing the potential effect of following Snoezelen multi-sensory interventions (McKee et al., 2007).

In other recent studies, the effect of this methodological intervention was also observed with repetitive behaviours. The purpose of this work was to investigate whether engagement in multisensory environments decreases stereotypical behaviours in adults with autism spectrum disorder. The sample included 3 male adults (20–40 years) diagnosed with autism spectrum disorder and intellectual disability with frequent repetitive patterns of behaviour. A single subject ABA design was used to examine the effect of the multisensory environment's intervention on repetitive behaviours: A Baseline; B Snoezelen intervention; A Baseline/follow-up. In this work, there were no conclusive findings related to the effectiveness of multisensory stimulation to reduce repetitive patterns of behaviour (Toms, 2018; Toms, Janke, Loy, & Watts, 2019).

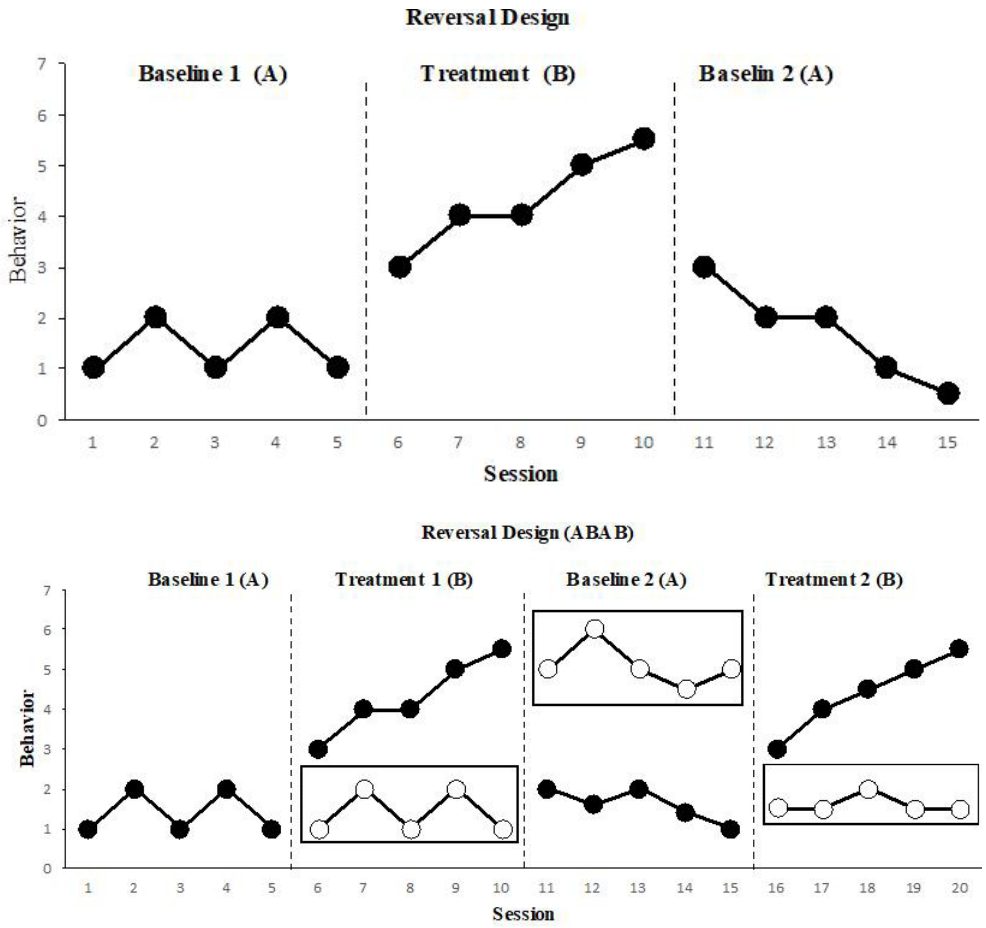

Diagram 15: Upper graph representing A-B-A design: (A) Initial baseline phase, where the independent variable (intervention) is not presented; (B) Intervention phase, where the intervention is presented; (C) Return to baseline condition, where the intervention is removed in order to examine to what extent the intervention is effective. Lower graph representing A-B-A-B reversal design. It is similar to previous design, but reintroducing B phase, which means there is a replication of the intervention effects to demonstrate the change in the behaviour measured [Alqraini, F. (2017). Single-Case Experimental Research: A Methodology for Establishing Evidence-Based Practice in Special Education. International Journal of Special Education, 32(3), 551–566].

Other works have been more optimistic about the positive therapeutic effects of multisensory intervention on disruptive behaviour. For example, one experiment developed by Kaplan et al. (2006) studied whether observed changes during Snoezelen occupational therapy (OT) treatment sessions carried over to two different settings, post-session engagement and further generalization in three adult participants (31, 47 and 52 years old) with autism, intellectual disability and severe challenging behaviours. Authors developed an experimental ABA reversal design (A: Snoezelen occupational therapy; B: non-Snoezelen occupational therapy) with sessions twice per week. The participant received several sessions of occupational therapy in a Snoezelen room in the first phase, then received non-Snoezelen OT for several sessions with other reversals between Snoezelen and non-Snoezelen OT phase, followed systematically. In the Experiment 1, researchers explored engagement during a functional task (1.1 number of prompts – gestures or vocalization which cued the participant to remain engaged and to complete the tasks. 1.2 number of tasks – throwing the ball to the participant's preferred staff member without being prompted, immediately following the treatment sessions).

In Experiment 2, the changes in the frequency of challenging behaviours (tantrums, crying and biting incidents) on the days after treatment sessions were measured. Results showed that two of the three participants increased engagement post-session and reduced the daily frequency of challenging behaviours on days following the OT sessions (Kaplan et al., 2006).

Fava and Strauss (2010) also investigated whether a multisensory or a stimulus-preferred environment had differential effects on the disruptive behaviours (aggressive and stereotypical behaviours) and prosocial behaviours (active behaviours toward sensorial stimuli and social behaviours toward caregiver) in 9 adults with autism spectrum disorder (good motor skills but poor linguistic abilities). Experimental design combined three conditions (living room, Snoezelen, Stimulus Preference), but each subject attended only one of the setting conditions, 3 times a week for 7 weeks (20 sessions in total for 25 min each session). Results showed a decrease in the frequency of aggressive and stereotypical behaviours, but did not change in social behaviours of individuals with autism (Fava & Strauss, 2010). A possible explanation for the lack of improvement in social behaviours might be that this group was frustrated at being exposed only to stimuli carried out by the caregiver in the room, following a specific sequence with a fixed order of interaction, and they could not act freely when exposed to specific stimuli.

Hill, Trusler, Frederick, and Giulio (2012) studied the effects of the sensory equipment provided in a multi-sensory environment.

They also studied the effect of social contact on stereotypical behaviours and assessed these effects as being maintained by automatic reinforcement. Only two young participants were included in this study (14/18year-old girl/boy) diagnosed with autism spectrum disorder and severe intellectual disability. Subjects were evaluated in a living room as well as the multisensory environment and received high or low levels of interaction from carers. The results exhibited that stereotypical behaviour was lower in the multisensory environment independently of the level of carer attention received, while levels of engagement were higher under conditions of high carer attention in both environments (Hill, Trusler, Furniss, & Lancioni, 2012).

Recently, a qualitative and exploratory research based on a single-case study found that multisensory Snoezelen therapy improved communication, interaction, and repetitive stereotypical behaviour of a 4 year-old child with autism spectrum disorder (Teodoro, Maria Leonor, Rodrigues, & Picado, 2018).

In conclusion, current research related to the use of Snoezelen multisensory stimulation to change maladaptive behaviours in persons with autism spectrum disorder is scarce and results are not conclusive. Works reviewed noticed both negative, neutral or positive results. Therefore, the implementation of this approach to validate its use as effective with autistic persons in reducing behavioural problems is relatively limited.

There was no strong evidence supporting that multisensory therapy reduces either challenging or stereotyped behaviours, or prosocial behaviours. More research studies are necessary to enhance evidence-based data in the field of multisensory stimulation to improve maladaptive behavioural problems in autism spectrum disorder.

So far this section on recent research in EMS and specifically in the fields of application of perinatal psychology, well-being and mental health problems, neurological disorders and some of the alterations that can occur during neurodevelopment.

As we have already seen in the introduction, from psychology it is understood that Snoezelen sensory stimulation should allow a global approach of the person in relation to others, placing them as the protagonist of the intervention and weaving a relationship of help with the therapist as the main axis of the intervention.

In general, the studies collected in this chapter show that EMS is an effective method in the short term to involve and improve the participation of the person and with this, enable a better adjustment to their daily environment. These improvements have also been

revealed in different studies reviewed in the emotional sphere (reduction in levels of stress, anxiety, psychological well-being, etc.), psychosocial aspects (social interaction, interpersonal communication), cognitive components (increase in attention capacity and learning, etc.) and behavioral factors (reduction of disruptive behaviors, self-harm, tics, etc).

The great diversity of research designs is also evident, some with limitations such as the lack of a control group, small sample sizes, uncontrolled evaluation procedures or the lack of quantitative results.

Therefore, more rigorous and quality studies are needed at the methodological level to generalize the clinical effectiveness of the interventions. All this generates a set of limitations for the generalization of results to be reliable and valid. However, regardless of whether the results are significant and generalizable or not, we think that a well-managed multisensory intervention, from the Person-Centered Care model and in the relationship and carried out by an expert professional, should result in subjective well-being and quality of life of people.

3.3 CASE STUDIES

SENSORY STIMULATION IN THE SNOEZELEN ROOM WITH VÍCTOR

Ribes, R., Galitó, A. and Cid, M. J.

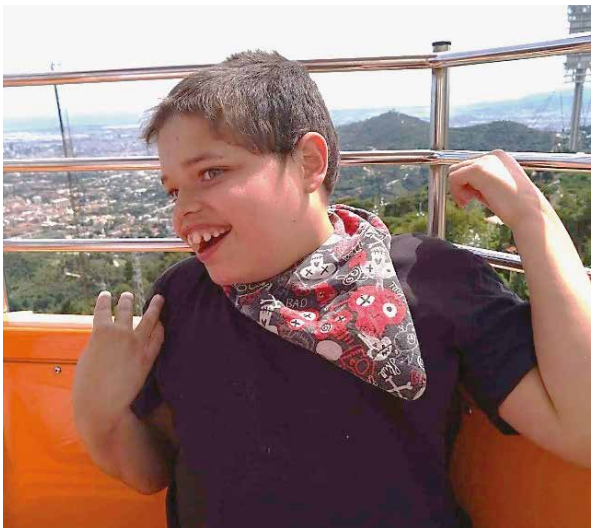

Fig. 56: Víctor

1. DESCRIPTION OF VÍCTOR

Víctor is a 14year-old boy who lives in a town with his mother and stepfather, his sister and his stepfather's mother. His relationship with his family is good. His sister is very aware of her brother; Víctor has a very special relationship with his maternal grandfather.

He has attended a special education school since he was little. The school is 20 km from his house, so he stays to eat at school. In the afternoons he comes home at 5:30 p.m, has a snack and plays in the park (especially on the swing). At weekends they go for a walk and play in the park or in the pool.

He likes water activities. He loves to play with water, he would spend the whole day playing. At school, he often tries to sneak out of the classroom to go to the bathroom to play with the water. The school tries to limit the opportunities of playing with water and getting wet. He is also interested in ball games, Tablet and entertainment programs on TV like Pepa Pig or Mickey Mouse House.

Víctor has had a nervous and muscular system deficiency since birth with a degree of intellectual disability of 85 % and a general need for help. The cause is tuberous sclerosis of congenital origin. Tuberous sclerosis is a genetic disorder, which causes along with intellectual disability, the formation of non-cancerous tumors in vital organs. He is also diagnosed with West syndrome and heart disease. He takes medication for tumor control (Votubia), blood pressure (Atenolol), epilepsy (Fycompa) and anxiety and psychosis control (Noiafren, Abilify and Haloperidol). Some medication may not be administered regularly due to his mother's beliefs about it.

According to his ophthalmologist, Víctor has visual difficulties, which are myopia and astigmatism. He has prescribed glasses that he tolerates wearing at specific times. Sometimes he takes them off. It is unknown whether or not the reason for this is a lack of efficacy of the glasses to aid the visual difficulties.

At the level of personal autonomy, he needs general help in daily life tasks such as dressing, washing and eating. He has difficulty using cutlery and when he can, he picks up food with his hands. He normally moves independently but on specific occasions, probably due to medication, Víctor has coordination problems and drags his feet. In these cases, the school uses a wheelchair. His family explains that he has difficulty sleeping both to initiate sleep and to maintain it.

At the communicative level, he verbalizes some words such as "shut up", "here" or "hello" but without contextualizing the situation he is experiencing. The emission of sounds is related to pleasant situations for him. At school, the use of pictograms is worked in a very initial phase, to communicate and to anticipate situations. His face is very expressive in situations that he likes or dislikes. His muscle tone is also related to liking or disliking. There is no interest in interacting with schoolmates. He does not initiate the interaction with them but if someone interacts with an object that he likes, he responds positively. For example, if a ball is thrown to him, he continues the game of playing catch. Regarding the adult, he shows a preference for some teachers and activities. He only accepts those instructions from the adult that he likes. If not, he shows his anger.

Over the past two or three years, Victor has shown a decline in his attention span and interests. He presents self-stimulating repetitive movements such as moving his fingers in front of his eyes or turning his head from side to side and movement of objects such as opening and closing doors, latches… etc. On some specific occasions, when he is very irritable and angry, he may forcefully grab or bite his classmates or teachers and may present self-injurious and aggressive behavior with objects. We think that these behaviors are an expression of personal and/or physical discomfort that he cannot explain verbally.

2. SENSORY PROFILE ANALYSIS

Visual assessment	Fixation and follow-up: He fixes his gaze for a few seconds on the stimulus and continues with the gaze accompanied by head and trunk rotation, when he is interested in grasping the stimulus that is presented; otherwise, his gaze does not follow the object. He is visually impaired but has trouble accepting glasses.
Hearing assessment	Location: He is able to locate a sound source, searching for it with his eyes, but he does little head rotation. He has good orientation and hearing acuity. The high pitched voice is not unpleasant to him but he shows rejection of a loud sound such as a bell. The low sounds of engines, firecrackers... he likes them.
Tactile assessment	He prefers cold temperature stimuli such as water and rough and strong touch. He dislikes hot temperature stimuli and the touch of sharp objects. He likes the vibration. He may feel uncomfortable with shoes and socks.
Proprioceptive assessment	He likes the pressure and the massage on the whole body equally. He remains very relaxed, reducing his muscular flexion and closing his eyes. At times, he may fall asleep.
Vestibular assessment	He does not like the Linear and angular movement. He takes the sagittal and inversion plane as a game and laughs.
Olfactory and Gustatory assessment	He contracts the muscles of the face according to salty and sweet taste and opens the mouth in response to the bitter taste. He doesn't like crushed food, although he has difficulty chewing. He dislikes the smells of dairy products.

In summary, Víctor has good visual ability to fix and follow an object, although he has visual acuity difficulties. He has preserved hearing abilities and is interested in touching objects that produce sounds when they are pleasing to him. At the tactile level, he prefers hot temperature stimuli and rough texture. He loves proprioceptive stimulation and does not like angular, self-rotating, or frontal plane vestibular movements. He likes to swing in the sagittal plane and position his body head down. At the gustatory and olfactory level, he perfectly differentiates his preferences.

3. GENERAL OBJECTIVES OF THE SENSORY INTERVENTION:

1. To promote the cognitive development of attention and concentration towards sensory stimulation.
2. To develop their communicative capacity from the fixation and follow-up of sensory stimuli.
3. To strengthen their initiative and autonomy in decision-making, respecting their interests.

AS SNOEZELEN 24HOUR RECOMMENDATIONS, THE GUIDELINES ARE:

1. Try to get him to sleep with weighted blankets, in order to provide him with greater proprioceptive stimulation and with it, relaxation that helps him to initiate sleep and remain asleep.
2. Avoid hot food and drinks.
3. When swinging in the frontal plane, such as on a swing or a rocking chair, he must always be accompanied since he does not have a sense of danger and this can lead to risky situations.

Hug bean bag, bubble column, ambient music
Used aids:

Fig. 57: Moisturizer

ANTICIPATION, RITUAL OF BEGINNING AND ENDING OF THE SESSIONS

Frequently, entering a Snoezelen room supposes a significant leap in the level of environmental stimulation in comparison to a previous situation, where the student was generally in a group class. We must observe their previous emotional and physical state to adapt to the work in the room. In Víctor's case, if he is nervous, we play gross motor and movement games to connect with him, such as playing to unbalance, swinging him, or pressing his body with a medicine ball. Normally, after a few minutes of proprioceptive and vestibular stimulation, he is ready to enjoy a calm space in the room.

If Víctor is calm, we go to pick him up in his class, we show him the pictogram of the Snoezelen room that appears in his schedule and we verbalize in front of him: Shall we go to the room?

At first, he enters the illuminated room with soft music. He sits on a chair for the educator to remove his shoes – Víctor does not participate in the action of putting on or taking off shoes – and we situate ourselves on the chosen element. We raise the sleeves of his jersey if we are going to perform tactile stimulation. For the ritual at the end of the session, we lower the sleeves of his jersey and/or the leg of his pants, turn up the intensity of the light, reduce the music, ask for his collaboration to close switches and sit on the chair so we can put on his shoes.

As accompanying guidelines, the elements to secure and communicate that work for us are:

- To anticipate what we are going to do by verbalizing it in short sentences.
- To use the look, smile and facial mimicry.
- To move at the level of spatial physical location, depending on the level of acceptance of the situation.
- To avoid physical situations face to face, it is better to situate ourselves on the side.
- To bow our heads as a gesture of respect and expectation.
- To respect his living space.

SECOND CASE: IZAN'S CASE

Teacher: Laura Cárdenas

Fig. 58: Izan

1. DESCRIPTION OF IZAN

Izan was 9 years old (date of birth 07/20/09) when the case was presented by his therapist. He has attended the educational center since September 2012 (3 years old). Previously he received early care. He uses the school transport.

His medical diagnosis is severe developmental delay in a polymalformative picture coinciding with Hartsfield Syndrome. The implications of the syndrome: holoprosencephaly (with absence of frontal lobe) and microcephaly, severe mental retardation, growth deficit and epilepsy, among other affectations. Its evolution in the different areas is described below.

Biological and health:

The parents report that at 7 months of pregnancy they were informed of certain malformations in the hands and feet (missing fingers) and after several check-ups nothing more relevant was detected, so they continued with the pregnancy, although with anguish and fear. The delivery was on term. He remained admitted to neonates for 3 months and another 4 more at the request of the family.

Colostomy and gastrostomy were made after birth. Over the years he has had various hospital admissions due to fever, crises, respiratory problems, urinary infections, etc. In addition, the gastrostomy tube and button have caused problems on numerous occasions

(food came out) for which he has undergone several interventions to try to solve it. In the last one, a few weeks ago, they performed a new gastrostomy in another area. He still has the provisional probe and is in the process of finishing the healing, so he can still feel itching in the area and it is visible that he tries to touch and scratch himself.

Sometimes he has problems with gas after eating (he protests, it hurts, he can't calm down) so he is held for a while and does not lie down until at least half an hour after eating (he remains in his chair).

He regularly takes a large amount of medication (antiepileptics, relaxant-anxiolytic, hydrocortisone...) This is one of the reasons that may be influencing the state in which he sometimes comes to school, fast asleep, unable to wake up sometimes even after a few hours.

- Auditory Development: Unspecified severe hearing impairment, undiagnosed. Perceives certain loud and shrill sounds.
- Visual development: Unspecified severe visual impairment, without diagnosis. His attention and visual perception are improved in an environment without reflections or direct light and with brightly colored objects. He can perform a small visual tracking of very close objects. Normally, he keeps his eyes closed, but when faced with something that may sufficiently attract his attention, he opens them a little.
- Psychomotor development: He moves in a wheelchair. He can get into a crawling position for a few seconds but he does not maintain it nor does he crawl. He is very active, he does not stop moving when he is lying down (he turns and turns, sits up supporting his arms when he is upside down...), so he can move by turning, for the pleasure of moving, without a specific direction or clear objective. At times when he is so active on the mat, he moves excessively and completely loses focus on the activity or object. He can sit with trunk supports. He tries to grab what is within his reach (what he can touch) or what he can see (something very close) He grabs his feet, especially when he is barefoot.
- Stereotypes: Various behaviors that express the need for sensory self-stimulation.
- Personal autonomy: Dependent on everything related to personal care (dressing-undressing, washing, eating, drinking, etc.).
- Perceptual-cognitive development: There is no object permanence or cause-effect relationship. Severe sensory deficits (auditory and visual) and difficulties with mobility and manipulation negatively affect his attention and openness to the environment (perception and understanding of the environment and situations).
- Language and communication: He laughs at pleasant situations, and only protests or complains at physical discomfort. He makes sounds and noises without communicative intention. He enjoys physical contact, although he doesn't seem to differentiate between familiar and unknown people (at least at school).
- Behavior, socialization and affectivity: He is a very affectionate child, he loves to be picked up, tickled, etc. He embraces the adult's neck with his arms, he holds people's hair, touches their faces, etc. He does not present resistance to changes, he accepts all activities, environments and people. Very rarely does he complain, protest or cry and it is usually due to organic discomfort (pain, gas...).

2. SENSORY PROFILE ANALYSIS

Place: Stimulation room	Sensory profile assessment date: September 2018
System	**Assessment**
VISUAL	**Visual reaction:** With maximum light he does not react to the person or the object or the light point. He does not stop in his stereotypes, he barely opens his eyes. In dim light and in the dark, before the luminous point, he closes his eyes (the light bothers him) and turns his face away. **Visual fixation:** With dim light in front of the person (located very close) he opens his eyes a little and seems to fix his gaze. He also tries to catch and/or touch the same object. Both in dim light and in the dark, it improves attention and perception of the luminous object and also performs gaze changes when it changes its position (gaze fixation and fixation change). **Visual tracking:** He does a little tracking of the object (if the movement is slow) in dim light, although it is difficult for him. Something that is better with the luminous objects. In the dark with the luminous objects, he performs visual tracking, better horizontally than vertically and from the midline downwards.
	Observations: During the assessment, the luminous point (flashlight) is replaced by a luminous object (with more diffused light) since it tends to avoid direct light (completely closes his eyes and turns his head). He makes the gesture of raising his head as if he would be able to see better in the lower plane, it is not entirely clear if it is due to a problem in the superior visual field or if it is due to telecanthus (which does not allow him to open his eyes properly).
	• High-pitched sound: He remains still with a weak sound, very close to the ear and of long duration, keeping the head turned towards the opposite side of the sound. If the sound is also strong, he shows a smile on his face. • Low-pitched Sound: Less reaction than in high-pitched sounds. When the sound is weak, he continues with stereotypes. If the sound is very loud and very close to the ear, a smile appears on his face (if the distance is normal, no reaction appears)

TACTILE	**Observations:** Although a clear auditory localization is not perceived, the action of turning his head away from close, loud, especially sharp sounds (sounds to which he reacts strongly) could be considered as such, also taking into account his visual difficulties. **Tactile response to:** **Temperature:** Reaction and differentiation appear caused by the sensations. • Cold: Avoidance, withdrawal and changes in facial expression in all the parts evaluated, with a greater reaction in the feet and face. A facial expression (grimace) of displeasure also appears. In the legs the time of reaction is longer. • Hot: Modification of musclular tension, is more relaxed, expectant. **Pressure:** In the palms of the hand there is an immediate withdrawal along with a start, a grimace and a sound of displeasure. However, in the arms, legs and feet he stays more still, practically does not withdraw the member, he allows this to be done. **Aversion:** In the upper extremities he tries to grasp the object (sandpaper), there is an immediate reaction, although without apparent signs of discomfort. In the legs he stays more still, he barely moves them. His feet seem to have a much more marked sensitivity because an immediate withdrawal appears. **Pleasure:** The stereotypes continue when he is stimulated with a pen, he has less sensitivity, apparently there is no clear reaction, although after a while he tries to pick up or touch the object.
	Observations: It seems that he perceives strong tactile sensations better, such as sandpaper, cold or pressure, but with differences in the body parts evaluated. The reactions of discomfort (withdrawal) in pressure and aversion do not appear in the case of the arms and legs, although he does react to a more superficial stimulation of the feet (sandpaper).

OLFACTORY – TASTE	**Gustatory Response:** He reacts to contrasting flavors in a differentiated way, especially to salty and sour flavors, to which he responds negatively with a facial expression, sound of displeasure, and muscle tension modification. He shows no apparent disgust reaction in the case of bitter taste. With the sweet he makes more mouth movements, there are no signs of discomfort. **Olfactory Response:** He avoids the strong smell (coffee) by turning his face, but remains more still and "attentive" to the spices. In the case of the floral smell, an interest in the stimulus appears, he tries to get closer to it.
	Observations: He does not eat or drink anything by mouth (gastrostomy) so a simple assessment has been made and the section corresponding to the Pagliano scales is barely completed. It has been done by leaving a small amount (a few drops or a few grains in the case of sugar and salt) on the tip of the tongue and it helped him to close his mouth for him to be able to perceive it. Likewise, an attempt was made to close his mouth for olfactory stimulation.
PROPRIOCEPTIVE	**Proprioceptive response (vibration):** An avoidance and withdrawal reaction appears in the legs and feet. In the upper extremities he remains more calm, he lets himself be assisted... A smile also appears on his face.
	Observations: Although the evaluation has been carried out with vibration, it is important to bear in mind that in proprioceptive massage activities (manual pressure) he reacts somehow differently. Normally it is easier for him to relax the lower extremities and to keep more active his upper extremities; it is more difficult to reduce stereotypes and to decrease muscular tension.
VESTIBULAR	**Response to linear acceleration:** He reacts by ceasing stereotypes and sounds, opens his eyes more (as long as the light is adequate) and smiles at repetition (both frontal and sagittal). **Response to angular acceleration:** He has the same reaction in angular acceleration, although in this case the laughter appears at the end of the turn (when we stop). **Response to vertical acceleration:** Sitting on the Bobath ball (with support from an adult) at the end of the movement he remains more still, without stereotypes, "waiting" and in repetition the smile appears.

VESTIBULAR	**Reversal response:** He modifies muscle flexion by slightly tensing the back and raising the head a little, however reactions of fun and enjoyment appear from the beginning (laughter and laughter). In the third repetition the intention to search for or catch the adult appears.
	Observations: Some balanced reactions appear in vertical acceleration and inversion, although without awareness of danger.

CONCLUSIONS TO THE ASSESSMENT, PRECAUTIONS AND NEEDS

The priority in working with Izan is the development (within his possibilities) of different basic perceptual-motor skills through Multisensory Stimulation for his own body knowledge, and construction of his identity, as well as the promotion of a more intentional interaction with the environment. In addition, and due to the serious affectation of the main exteroceptive senses (sight, hearing and touch), we must take special care in anticipating situations.

Special attention to his postural control and the restraints he needs in the chair (mold, straps, bib and footrest) as well as vigilance when he is lying down to avoid falls, since he can be very still or very active, and is not always aware of the danger of injury.

A good (comfortable) position and good postural control (sometimes assisted by external elements) provide him with greater comfort and help him to better manipulate, experience and take care in his environment.

3. GENERAL OBJECTIVES OF THE INTERVENTION

- To achieve the best possible conditions of physical and emotional well-being.
- To improve the senses of sight, hearing and touch, to enhance their use and increase the client's motivation to explore the immediate environment.
- To experience the body through different postures and perceive different proprioceptive sensations related to body movements.
- To promote different tactile perceptions and allow the client to discover their own body through its entire surface.
- To progress in the development of gross motor skills (increase postural control, trunk balance and general head control) and fine motor skills (coordination of upper limbs for exploration).
- To evoke and anticipate moments and activities with the help of objects, sounds, repeated actions...

- To increase motivation and focus attention.
- To reduce stereotyped and isolating behaviors.
- To increase and improve the client's social and interactive response in relaxation and body contact situations.

TARGETS BY SENSORS	
VISUAL	• To promote visual attention, fixation of the gaze on an object and/or person and enhance follow-up. Improve the visual environment to encourage this attention and motivation for the use of vision. • To facilitate the improvement of hand-eye coordination.
AURAL	• To improve the reaction and listening attention to different sounds. • To use the sounds that he can perceive as work tools, anticipation of activities and enjoyment of the environment. • To encourage the emission of sounds of pleasure / displeasure. • To encourage the search for sound (at the tactile-body and/or visual level.
TACTILE	• Desensitize the parts of the body that are less reactive to tactile stimulation (arms and legs) and improve the perception of his own body (and of body limits) contributing to the construction of the body schema.
PROPRIOCEPTIVE	• To help him to perceive the body in its entirety and the awareness of the corporal limits through proprioceptive and/or vibration massages, paying special attention to the upper extremities. • To facilitate relaxation at a general level and body "awareness".
OLFACTIVE – TASTE	• To use olfactory stimulation as another anticipatory element of activities and situations.
VESTIBULAR/ MOTOR DEVELOPMENT	• To experiment with different positions and movements of the body in space and improve balance. Provide reference points on his own body. • To reinforce balance reactions from the sensation of movement and vestibular stimuli. • To improve the function of the upper limbs (use the hands and arms as a source of exploration of nearby objects intentionally) to the extent possible. Improve bimanual coordination. • To use his movement possibilities in order to respond to his interests.

RECOMMENDATIONS FOR THE DAILY LIFE OF THE PERSON (Snoezelen 24 hours)

As it is a school center without a residence service, the hours for students to stay there are Monday through Friday from 9:00 a.m. to 4:30 p.m. Therefore, a 24hour Snoezelen intervention is not specified, but a series of recommendations to be taken into account in the different settings of the center that can also be transferred to the family.

TO RESPECT at all times the **LATENCY PERIOD** in the student's response, giving him time to process and react to stimuli, always maintaining an adequate personal interaction and anticipating the activities to be carried out.

ANTICIPATION of activities, actions, environments and people:

- Anticipatory objects set by the center will be used to anticipate activities such as music class, physiotherapy, speech therapy, physical education, diaper change, etc. (with different textures, volumes, lights and/or sounds).
- The way in which each person addresses him (taking into account these recommendations and accompanying guidelines), the smell itself (always use the same perfume) and the voice (close) can give him clues for the recognition and differentiation between people.
- Take care of the anticipation of movements, sensations or actions that we are going to carry out with him:
  - To help him to touch the mat to indicate that we are going to lay him down. When putting him back in the chair, first sit him on the mat (or stretcher), do not raise him directly from a lying position.
  - To help him to touch the material with which we are going to work.
  - To tap the feet to indicate that we are going to put on-take off the shoes. In the same way, touch the part of the body that we are going to dress-undress and do it with soft and comfortable movements for the child. Also help him to touch some items of clothing beforehand.

TAKE CARE OF THE ENVIRONMENT in terms of:

- To avoid environments that are highly saturated with noise, people or objects, which can be moments of isolation and an increase in stereotypes.
- Objects: To offer him the objects with which we are going to work one by one to help focus attention. Simple, varied objects (different textures, for example), if possible both, in a single color and contrasting, with the right shape and volume that he can hold…
- Visual environment: Reflections and intense, direct light bother him a lot, so taking care of the visual environment is extremely important.
- When lying down, both in the classroom and in the bathroom (bed-changing table), keep the light source directly above him.
- In the yard: Place him with his back pointing to the sun and raise the hood a little.
- On the bus: Take care of your position on the school bus and draw the curtain whenever necessary.
- Auditory environment: Speak very close to him and raise the tone of your voice a little, or even put a higher voice and lengthen the sound.

Recommendations in DAILY CARE:

- Take care of the temperature of the water in the hygiene of both diaper change and colostomy. With a warmer temperature we can avoid sudden movements and we help relax the body.
- To prevent the gastric tube and the colostomy bag from being touched (or hit), grasped or stretched, at times of hygiene and feeding, there should always be two people. To avoid having to hold his arms, carry out a small proprioceptive massage beforehand, offer him something that he can grab and explore (or our hands) and/or encourage listening attention to the accompanying adult.
- Maximum anticipation in mouth and lip hydration (he doesn't like it), do it little by little, trying to desensitize the area, talk to him, massage another area of the body first and then reach his face.
- Take advantage of multiple moments of daily care to provide well-being and body awareness.

4. PROGRAMMING IN THE SNOEZELEN ROOM

INDIVIDUAL PROGRAM INTERVENTION SPACE SNOEZELEN		
Name: IZAN A.F.	Responsible for the session: Laura	
Age: 9 years	Length of the session: 30 min.	
Date: October 18th	Time: Tuesday / Thursday 11:45–12:15	
Session Anticipation	**Room Anticipation**	**Room Setting**
Verbalize that we are going to the multisensory room, show him (offer him) the anticipatory object of the stimulation activity (make a sound, touch it, pass it over his arms, hands, face...) 1* 	Upon entering, we sound the room anticipator 2* (very close to the ear, so that it touches the face, neck...) We verbalize where we are, with whom and what we are going to do. 	We will always keep the light dim (when entering and leaving as well) or semi-darkness except for work with the Bobath ball, ball pool and lobby, where we can raise the light a bit (although never completely). The black light will also be used to set the room, even if we are not going to work with our own material, since it is quite comfortable for him. Sometimes we will use the star projector as another ambience and relaxation element, not so much for specific visual stimulation purposes because he does not perceive it well. **Music:** depending on the target to work on (relaxation or activation with the vibration complement) we will use calm music or something more instrumental and/or rhythmic.

Start of Session Ritual
After experiencing the room anticipator 2*, place the child in the area that we have chosen according to the objective to work on (mat, bed, puff...) and remove the shoes (not before getting off their chair) Small body massaging movements to activate the body and sensations; dedicate a moment to meet the child, let them touch our faces, our hair...

End of Session Ritual
It is verbalized that we finish the session, we lower the volume of the music until it stops and we turn up the light a little (always keeping it dim) and the light fixture that we have put on is turned off. Small massages-caresses, put on your shoes and sit next to him on the edge of the bed or mat before returning to your chair. Before leaving the classroom, we sound the anticipator 2* again and verbalize that we are going back to class with their tutor and classmates.

General target	General work methodology during the session
Reduce stereotypes and increase attention, interaction-communication and body awareness. Provide a pleasant and fun moment. Enhance the use of vision, hearing and touch as well as their motivation to explore the immediate environment. Experience the body through different postures and movements and the perception of tactile and proprioceptive sensations.	We will anticipate the movements to be carried out, our actions and previously present the material with which we are going to work (let them touch it, perceive it...) Methodological principles to always take into account when presenting stimuli: Structure, Contrast, Latency, Symmetry, Rhythm and Balance. Always seek interaction with the child. At first we will attend to the possible need for vestibular and/or proprioceptive stimulation (depending on how it is) and then expand the activity towards visual and/or auditory stimuli (from the closest and most proprioceptive to the most distal). To position the child in the most comfortable way possible according to the objective we want to work on. For visual stimulation and visuomotor coordination and better handling while sitting with supports. To seek responses adapted to the activity, voluntary movements (respond to these intentional behaviors) Do not try to avoid self-stimulation by forcing movements but by stimulating other parts of the body (and/or senses) We always end the session with a moment of relaxation, either on the mat (with proprioceptive massage) or on the waterbed with very gentle movements. To use one or two devices during the session according to the objective set, avoiding saturation of activities and stimuli.

Specific target	Methodology	Equipment used
VISUAL STIMULATION To promote attention, fixation and visual monitoring. Motivate for exploration and facilitate visual-motor coordination and physical relaxation.	*Column of bubbles:* Sitting with the adult near the column we will encourage visual attention, gaze fixation and possible voluntary movements of approach (motivation by stimulus) Bring your hands closer to the column to feel the vibration.	OPTICAL FIBERS BUBBLE COLUMN BLACK LIGHT (with material)

	Optical fibers / Black light: It can be lying down but preferably sitting on a puff or on a mat with supports (improves attention) Vary the presentation distance to favor eye movement and search for light / object. Let him catch the fibers/object and manipulate. In the case of black light, present a single object at a time.	
AURAL STIMULATION Attention and search for sound. Feel the vibrations of sound elements	Preferably in a seated position (beanbag or mat with supports) present the auditory stimulus varying the distance, volume and tone to provoke a positive response: Laughter, voluntary movements, etc. Give enough latency time.	Different sound material / musical instruments VIBROACOUSTIC PUFF.
TACTILE AND PROPRIOCEPTIVE STIMULATION Perception and reaction to tactile and proprioceptive sensations. Working on body awareness. General relaxation and personal well-being.	*Ball pool:* Leave free movement and combine it with activities involving balls, pass a ball all over the body... *Optical fibers:* Pass all or part of the mallet through the different parts of the body. *Puff, vibrating mat and vibroacoustic waterbed:* Position it correctly and allow a moment of body experience (maintaining some body contact) and end with a proprioceptive massage. *Tactile material:* Work on the body schema and reaction to tactile stimulation using various materials (different textures, soft balls...) *Observations:* In proprioceptive massage, sometimes start with the legs if you have a lot of arm movement. Do not exceed the intensity of the vibration.	Tactile material, small balls... OPTICAL FIBERS PROPRIOCEPTIVE PUFF / VIBRATORY MAT BALL POOL VIBROACOUSTIC WATERBED

Specific target	Methodology	Equipment used
VESTIBULAR STIMULATION Seek enjoyment and well-being. Promote balance reactions and postural control.	We will seek well-being and the increase in voluntary motor behaviors adapted to the activity (balance reactions, laughter, vocalizations...) *Ball pool:* Leave free movements. While sitting on us, help him catch a ball with both hands, play with it... *Vestibulator:* Twists and sways on a net and seat with straps. Bobath-type balls: Sitting or lying down, making small swings, bounces... Hit the ball so that he also feels the body at a vibratory level. *Water bed:* Balances and imbalances in sitting position. Lying down making slower and more rhythmic movements.	BALL POOL VESTIBULE BOBATH TYPE BALLS WATER BED
COGNITIVE STIMULATION / COMMUNICATION	Wait for a response (protest, voluntary movement, body contact, grimace...) that tells us that they want to continue (if we stop a movement, if we stop the sound or vibration, if we move an object away...)	Column of bubbles, optical fibers, luminous objects and uv objects (black light) Vibrating material Sound objects Vestibular stimulation materials

ACCOMPANIMENT GUIDELINES IN THE SNOEZELEN SESSION

SPECIAL APPROACH

The eyes are more affected, so it would be good to use the ear first, approach from the side to speak to him very close, so that he can hear us (speak to him with a prolonged sound...) at the same time that we touch his shoulder to let him know that we are there. Touch his arms, his hands, his face a bit... Everything to be able to get his attention (and so that he can recognize us) without invading his space, and expect a positive response. Once we have managed to connect with him, we can place ourselves in his field of vision, so that he can detect us and let him touch our faces (if he wishes). Due to his sensory deficits, he needs a lot of physical proximity, so we will take this into account:

- Provide him, whenever he “asks” us for it, a moment of body contact, hug-swaying... Do it with respect, do not invade his space, wait for him to initiate the contact or the “request” (let him be the one to touch or look for us).
- Do not leave him alone (do not abandon him), always have a reference to where we are, that we have not left (for example, place a hand on a part of his body).

POSITION

Our position: approach from the sides so that he hears us, or from the front and more crouched than him, at a close distance so that he can visually perceive us.

Ensure good alignment and postural hygiene in his chair: Seating mold, pelvic support, bib, footrest. His posture out of the chair:

- Sitting: On a beanbag molded to his posture or on a mat providing comfortable backrest and points of reference and support (with a person next to you holding your shoulder a little to help you with postural control and attention to stimuli) Always ensure his comfort. If there is no element of support, use our own body to give it stability in that posture.
- Lying down: In this position (mat or bed) provide moments of free movement and exploration, always ensuring his safety.

SPEED

Make slow movements, especially visual and physical, so that he can “follow” us in the activity. Always expect an answer or at least give him time.

ANTICIPATION

We must be as cautious as possible and anticipate all environments, movements and activities. In the specific case of the session in the room:

- Room-environment: Make use of the anticipator of start and end of the session (2*) The stimulation room will always have the same perfume.
- Actions: Touch the part of the body that we are going to stimulate first (ear – sound, feet – remove shoes...) Let him touch the material on which we are going to place him (bed) or which we are going to use (fibers...).
- Movements: Make the movement incomplete several times and then complete it (turns), hit the ball several times or the swing before swinging (for him to feel it bodily or auditorily).

FREEDOM OF CHOICE

Regardless of the specific objective that we have set ourselves, respond to the interests and intentions of the child and be able to change the course of the session towards those activities and sensations to which he is most “open” at all times.

3.4 SNOEZELEN CURRICULUM AT THE FACULTY OF EDUCATION, PSYCHOLOGY AND SOCIAL WORK OF THE UNIVERSITY OF LLEIDA

Currently, an introduction to the Snoezelen intervention is offered in optional subjects of the degrees of Psychology and Social Education, that is, in the subjects of Early Attention and socio-educational action in people with disabilities and dependency.

In the future, one of the challenges in updating the study plans is to offer an optional subject of 6 credits on Snoezelen multisensory intervention in the initial training degrees of Psychology, Early Childhood Education and Social Education.

In continuous training studies for professionals, a first edition of the Snoezelen University Expert course in multisensory stimulation was carried out during the 2019–2020 academic year. The course lasted for one school year. It consisted of 12 credits and was designed and carried out jointly with the association Isna Internacional Spain.

Below is a summary of the objectives and contents taught in this course. It had a theoretical training structured in two theoretical-practical modules and a third practical module. This third practical module consisted of the elaboration of the design, intervention and evaluation of a practical intervention session in the Snoezelen room by the student.

MODULE 1: "SNUFFELEN" OR FEELING

Goals

- To offer a theoretical perspective as a basis for work in Snoezelen spaces: Sensations, and sensory systems.
- To locate sensory integration difficulties and their implications in the person's daily life.
- To know different approaches to multisensory intervention
- To know the Snoezelen concept and the practice of relationship and approximation that it implies.
- To learn a different "approach" to the person: Snoezelen 24 hours.
- To evaluate the sensory capacities of the person.
- To establish the sensory profile of the person.
- To show the elements of a Snoezelen space and the intervention methodology.
- To experience the effects of multisensory intervention and Snoezelen, through different workshops.

Contents

1. Neurological foundations of the sensory system
3. Sensory evaluation: Theory and practice
4. General multisensory stimulation
5. Snoezelen concept: Snoezelen 24 hours
6. Snoezelen Methodology: Analysis of a session in the room
7. Scheduling and evaluation of the sessions in the Snoezelen space
8. Objectives in the Snoezelen room according to the needs of the person: Practical cases

MODULE 2: "DOEZELEN" OR EMOTIONAL WELL-BEING

Goals

- To understand the importance of sensory work at a neurophysiological level: Importance of synaptic processes. Brain plasticity.
- To know the effects of sensory stimulation on the person's neurological functioning.
- To establish the bases of accompaniment: The professional and his role in generating a full life for the person.
- To reflect on the daily environment as a generator of well-being emotions or a source of discomfort.
- To analyze behavioral problems from a sensory point of view and appropriate environments. Multimodal analysis.
- To know the importance of body language in multisensory intervention and its practice.
- To know tools for evaluation and assessment of the sensory capacities and sensitivities of the person.

Contents

1. Sensory systems: Neurophysiology and brain plasticity.
2. Practical application by sensors of multisensory stimulation.
3. Advances in the Snoezelen intervention.
4. Multisensory stimulation and everyday environments.
5. Analysis of behavior problems.
6. Human ethology and the professional who leads the session: Practical experiences.
7. Communication in a Snoezelen space.
8. Evaluation of the sensory profile.
9. The Snoezelen intervention in different groups: Early attention, intellectual disability, dementia, brain damage and mental disorder.

MODULE 3: ELABORATION OF A PRACTICAL CASE IN SNOEZELEN INTERVENTION

As we have said, each student has to design, implement and evaluate a practical case of multisensory intervention – preferably in the Snoezelen room – where they have to show

the application of the knowledge acquired. The implementation of the session must be recorded in audiovisual format. The minimum duration of the recording must be between 20 and 30 minutes. Each practical case is exposed to the entire group of students and therefore forms part of group learning. The case presentation sessions become a space for experiential learning. The trainers, through individual tutorials, return the sensory profile and initial design of the program before its implementation.

As a summary, the presentation of the case includes the following sections:

- Basic information on personal data and anamnesis of the case.
- Preparation of the sensory profile based on the content of the first module and the evaluation of the second module.
- Preparation of the individual intervention program following the scheme:
  - Work objectives based on sensoriality that contribute to improving the emotional well-being and quality of life of the person involved.
  - Recommendations in activities of daily life (Snoezelen 24 hours).
  - General recommendations regarding activities.
  - Working plan in a Snoezelen session.
  - Recommendations regarding the professional accompaniment that is necessary.

Evaluation: The student must self-evaluate from the individual observation records of the classmates, the sharing carried out in class and the individual return by the trainers.

Conclusions: Personal reflection of the experience and knowledge of this new methodology in their professional field as well as the strengths and weaknesses of their intervention.

As an example, the observation record is presented where students must carry out the analysis of each case included. As we have mentioned, these records of classmates must be included in the self-assessment that the student who presents the case must do.

SNOEZELEN SESSION CASE STUDIES
STUDENT OBSERVATION SHEET

- **ANTICIPATION:** Preparation of the person to go to the room (verbal, SPC, tangible objects...)
- **STARTING RITUAL:** How the person is situated when entering the room, taking physiological data, lighting the space, verbal instructions, others...
- **AMBIANCE:** Lighting, music etc. during the session and degree of participation of the person.
- **POSTURE:** Positioning of the person
- **STIMULATION AND OBJECTIVES DURING THE SESSION:** Which sensorium is worked and in which way. Which objectives are pursued during the session.
- **STEREOTYPED MOVEMENTS:** Are they present? Do they vary? How? Sensory level compensation?

- **EMOTIONAL CHANGES THROUGHOUT THE SESSION:** Joy, sadness, frustration...etc. and self-management strategies
- **COMMUNICATION** of the professional
  - » Observable channels:
    - Look
    - Body tone
    - Facial mimicry
    - Motion
    - Gestures and mimicry
    - Voice tone
    - Language level
    - Physical contact
  - » Communication and relationship skills:
  - » Start and end of the interaction
  - » Communication mediating activities
  - » Body position in comparison to the other and adaptation
  - » Respect for the initiative, rhythms and latency times
  - » Interaction speed
  - » Listening skills
  - » Congruence between verbal and nonverbal communication
  - » Security of the person
  - » Adaptation and flexibility to the capacities and needs of the other
- **END OF THE SESSION:** Exit ritual.
  - » Return to the family (if applicable)
- **OBSERVATIONS**

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illustrative photo

4 ANALYSIS OF STUDENT'S KNOWLEDGE AND OPINIONS OF SNOEZELEN-MSE

4 ANALYSIS OF STUDENT'S KNOWLEDGE AND OPINIONS OF SNOEZELEN-MSE

This chapter examines the Snoezelen phenomenon from a selected angle: i.e., the point of view of Czech, Polish and Catalonian university students attending Snoezelen courses.

A major strength of Snoezelen lies in the fact that, with the help of appropriate stimulation, it is possible to find a way through to the client/patient with whom communication, for various reasons, is difficult. Snoezelen is, therefore, a way of opening communication, running both ways (from care-giver to care-receiver, and vice versa). In addition, Snoezelen also enables participants to experience the environment, and themselves in the environment, in such a way, and to such an extent, that would often be unattainable to them outside the Snoezelen space. The obvious fact that man is a sensory being is exploited in this instance. Appropriate sensory stimulation can be an introduction to communication; it can stimulate it and clarify it, and often initiates it (see also: Hulsegge, Verheul 1986; Brehmer, 2002; Mertens, Verheul, Köstler, Merz 2005; Mertens, Tag, Buntrock, 2008; Smrokowska-Reichmann, 2013; Janků, 2018).

The streamlining of communication processes seems to be key to Snoezelen's success, since it is impossible to imagine any effective therapeutic or pedagogical impact without at least partial communication with the client/patient. But apart from communication, another strength of Snoezelen is its harmonious combination of activating and relaxing aspects. According to Snoezelen rules, during the Snoezelen process, either function may be emphasized, depending on the needs of the given participant.

4.1 METHOD

The first debate about the aims of this research started as early as 2019, during the first joint meeting of the researchers.

Our interest was to conduct original research which would bring together systematic findings about the comprehensive knowledge of students and graduates in a comparative analysis, and would then lead to further teaching innovations in professional university courses with a focus on Snoezelen.

In order to compare the knowledge of students and graduates from linguistically different Czech, Polish and Catalonian backgrounds, it was necessary to create a common tool in English, which was, subsequently, translated into all three national languages. We discussed in detail certain cultural differences and aims of theoretical and practical lessons, and, eventually, we focused on the basic essence of the Snoezelen method, including theoretical principles and the pillars of the Snoezelen concept, its dominant characteristics and functions, and its advantages and disadvantages.

At the beginning of 2020, a pilot study was organized to establish whether the information in the questionnaires in all languages would be clear and adequate to respondents, and whether it would provide sufficient data for comparison. As a result of this phase, some questions were adapted or removed so that the final questionnaire corresponded better to the objectives of our study. Questionnaires in national languages were distributed from June to December 2020. Students and graduates were contacted several times during this period by email. This helped us to set up a database of students participating in tutorials and courses focusing on the Snoezelen method and the understanding of it.

At the time of the study, there was no standardized and officially distributed questionnaire that met our research objectives: to determine Czech, Polish and Catalan tertiary students' opinions and knowledge of Snoezelen-MSE.

Research studies on the topic of Snoezelen cover both qualitative and quantitative research into the effectiveness of the use of Snoezelen in practice (Van der Velde-van Buuringen, Achterberg, Caljouw, 2020; Nielsen, Overgaard, 2020; Lancioni, Cuvo, O'Reilly, 2002), while others detail changes in mindset, calming, and relaxation, or users´ preferences regarding Snoezelen equipment, tools, and methods (Momeni, Jamshidimanesh, Ranjbar, 2020; Teodoro, Marinheiro, Rodrigues, Picado, 2018; Garzotto, Gelsomini, 2018).

For our purposes, a joint original English questionnaire was created, containing 41 questions. This questionnaire was subsequently translated into all three languages, as mentioned above. The questionnaire contained a number of closed and open questions, but most questions were answered by selecting an option from a five-point Likert scale: (1) "I definitely agree", (2) "I somewhat agree", (3) "I don't know", (4) "I somewhat disagree", and (5) "I definitely disagree". We considered the first two variants to be positive responses, and the last two variants to be negative responses. Variant 3 was considered a neutral response.

The questionnaire was distributed using Google Forms, the free survey administration software available from Google. Students in all countries were sent a national version of the questionnaire via a specific web link. To maintain the validity and reliability of the research, the questionnaire questions were referred to the experts on methodological data processing. As a result of this consultation process, some questions were changed so that their informative value was clearer and more understandable. The content of the questions was then compared with the research objectives, and, as far as possible, questions were grouped according to the specific research aims. In the final part of the questionnaire, three questions were included which encouraged students to express their opinion on the use of Snoezelen in their field.

The participants in the research were Czech (CZE), Polish (POL) and Spanish (SPA) students and graduates formally educated in the theory of the Snoezelen-MSE. The Czech research group consisted of a total of 145 respondents: 132 women and 13 men; the Polish participants consisted of 93 respondents: 91 women and 2 men; the Spanish participants consisted of 80 respondents: 70 women and 10 men. The largest group of respondents were

in the age category 18–23 years, (41 % of Czech students, 30 % of Polish students, 71 % of Spanish students) which is understandable, since the research focused on university students and graduates. The most of the respondents from each country were women, there is only very few men in the research sample. The representation of men in our sample is minimal due to the overall representation of male students in the helping professions; unfortunately, this gender imbalance is to be expected, given the reality.

Table 1: Participants from three countries

Country	N	Age	N / %
CZ	145	18–23	60 / 41%
		24–30	30 / 21 %
		31–40	20 / 14 %
		41 and more	35 / 24 %
POL	93	18–23	29 / 30 %
		24–30	22 / 24 %
		31–40	17 / 18 %
		41 and more	25 / 27 %
SPA	80	18–23	57 / 71 %
		24–30	16 / 21 %
		31–40	2 / 3 %
		41 and more	4 / 5 %

The data were analysed quantitatively. Individual questions from all three national questionnaires were systematically classified, and the answers were totalled and then converted into an absolute value of percentages and ratios. The data obtained from all groups of respondents were compared, working on SPSS statistics programme.

For the purposes of our research, the following research questions and hypotheses were formulated:

Questions:

1. Find out whether the type of experience with Snoezelen (practical and theoretical) differs in individual countries (CZE, POL, SPA).
2. Find out whether respondents who have practical experience working at Snoezelen rate the possibility of a personal approach to the client higher than those who have only theoretical knowledge and have never practiced Snoezelen (all countries together).

3. Find out if participants from the three countries think that the use of Snoezelen results in relaxation and calming are more often than a change in the client's behavior.
4. Find out if participants from the three countries think that the therapist should work more often than the educator in Snoezelen room.
5. To find out whether the age of the participants from all countries (CZE, POL and SPA) affects a clear own idea of practicing the Snoezelen method.

Hypotheses:

1. Most respondents from all three countries have not only theoretical experience, but have seen Snoezelen in practice as well.
2. Students with practical experience think that the possibility of a personal approach to the client is a strength of Snoezelen rather then students with theoretical experience.
3. The use of Snoezelen results more likely in relaxation and calming of the client than in a change in the client's behaviour.
4. The therapist should work more often in Snoezelen room than the educator.
5. Older respondents can rather imagine working in Snoezelen room than younger respondents.

Hypothesis 1 was verified using a non-parametric chi-squared test of independence. This test evaluates the independence of two categorical data. It is based on a contingency table of these data, i.e. a rectangular or square table of frequencies of individual values. The null hypothesis states that both categorical variables are statistically independent. The degree of dependence of the categorical data in the contingency table was then be measured using Cramer's V and contingency coefficient C.

Due to the fact that the normality of the data sample is not met, it was not possible to apply a standard parametric *t*-test to compare two samples to verify hypothesis 2. However, nonparametric tests have less power ($1-\beta$) than parametric tests (e.g. *t*-test). This means that they like to be careful not to reject the null hypothesis (either the null hypothesis really holds true or there is little data to prove otherwise). We will therefore use the non-parametric Mann-Whitney U test, which determines whether two selections have the same median. In any case, this test is very robust to a variety of non-normal distributions, so it is still a significantly better option for non-normal data than to use the *t*-test incorrectly (Pardo, 2020).

Hypotheses 3 and 4 were evaluated by nonparametric Wilcoxon signed-rank test. This test is used to evaluate pairwise experiments when the observed quantity does not correspond to the Gaussian normal distribution which is our case. It therefore compares 2 measurements performed on one sample. Wilcoxon signed-rank test generally assumes asymmetric distributions. Therefore, instead of the average, the median is considered, because it is really in the middle. It is used in similar situations as the sign test, but the Wilcoxon signed-rank test also considers the magnitude of the difference. Therefore, the Wilcoxon signed-rank test is stronger because we have a better chance of detecting small differences between measurements and deciding to reject the null hypothesis. The

Wilcoxon signed-rank test compares the differences by size – so it considers a "smaller" and a "larger" difference, not the actual size of the difference as calculated by the parametric paired *t*-test (Conover, 1999).

Finally, to verify hypothesis 5 the non-parametric Kruskal-Wallis test was utilized. This test represents a parametric equivalent of the one-way ANOVA. Because the null hypothesis of normality of sampling data is rejected, it is necessary to choose a nonparametric test. The Kruskal-Wallis test is an extension of the Mann-Whitney U test, which can only be used for one or two samples. A significant value of the Kruskal–Wallis test connotes that at least one data sample stochastically dominates others (Spurrier, 2003).

4.2 RESULTS

The first hypothesis was fulfilled. Students who have participated in the research have different experiences with Snoezelen. Even so, we can say that most students from all three countries not only have theoretical experience, but have seen Snoezelen in practice as well.

Conclusion 1: Based on the value of the Chi-squared test, the statistically significant dependency between the type of experience and the particular country exists. Assumptions of using the Chi-square test are met. None of the cells have an expected count of less than 5. Dependency achieves moderate values, as confirmed by the values of contingency coefficients. Respondents from the Czech Republic in particular have practical experience. In the case of Polish and Spanish respondents, the sample values are different. Most Polish respondents only saw Snoezelen. (see Tab. 2 + Tab. 3)

Table 2: Experience with Snoezelen (Contingency table)

		Experience with Snoezelen (N)			
		I have heard of Snoezelen, but I have never seen it in practice	I have seen Snoezelen in practice	I have practical experience	Total
Country	CZE	52	65	21	138
	POL	1	43	5	49
	SPA	26	29	4	59
Total		79	137	30	246

Table 3: Experience with Snoezelen (Chi-squared test and symmetric measures of significance)

Chi-squared test and Symmetric Measures		Value	Approximate Significance
Nominal by Nominal	Chi-squared test	,359	<,001
	Cramer's V	,254	<,001
	Contingency Coefficient C	,338	<,001
N of Valid Cases		246	

The second hypothesis was not fulfilled. Students with practical experience don't think that the possibility of a personal approach to the client is a strength of Snoezelen rather then students with theoretical experience. The second question involves two groups of students from all three countries: 1. those students who have practical experience with Snoezelen (30) and 2. those who have theoretical experience or only have seen Snoezelen room (263). We compared both groups with the scaled question: whether students think that the possibility of a personal approach to the client is a strength of Snoezelen.

Conclusion 2: The results of the non-parametric Mann-Whitney test show that there is no statistically significant difference between the two groups in the evaluation of the possibility of a personal approach to the client. Both groups evaluate the possibility of a personal approach to the client in the same way. There is no statistically significant difference between groups of respondents.

Table 4: The strength of personal approach and students with practical experience (Mann-Whitney test statistics)

Test Statistics	
In my opinion, the strongest aspect of the Snoezelen concept is the possibility of a personal approach to the client.	
Mann-Whitney U	3633,000
Z	-,799
Asymp. Sig. (2-tailed)	,424
Grouping Variable: Practical or theoretical experience with Snoezelen	

The third hypothesis was fulfilled. The use of Snoezelen is more often relaxation and calming down than change of client's behavior.

Conclusion 3: Based on the results of the nonparametric Wilcoxon signed-rank test, it is possible to state that respondents from all three countries confirmed the hypothesis

that the use of Snoezelen results more likely in relaxation and calming of the client than in a change in the client's behaviour. Subjectively, people think that the result of Snoezelen lessons and practising should be relaxation, not a change in behavior. The *p*-values of the statistical tests are clearly lower than the chosen significance level of 0.05.

Tab. 5: Relaxation versus changing behavior (Wilcoxon signed-rank test statistics)

Country		Test Statistics
CZE	Z	-8,726
	Asymp. Sig. (2-tailed)	<,001
POL	Z	-6,386
	Asymp. Sig. (2-tailed)	<,001
SPA	Z	-4,896
	Asymp. Sig. (2-tailed)	<,001

The fourth hypothesis was to find out if participants from the three countries think that the therapist should work more often than the educator in Snoezelen room. **This hypothesis was fulfilled.**

Conclusion 4: Yes, this is the case in all compared countries. The results are similar to hypothesis 3. The differences between the pairs of measurements are statistically significant for respondents in all countries at 5% significance level. Subjectively, people think that a therapist should work in Snoezelen rooms more often than pedagogues.

Table 6: Therapist versus pedagogues in Snoezelen room (Wilcoxon signed-rank test statistics)

Country		Test Statistics
CZE	Z	-5,630
	Asymp. Sig. (2-tailed)	<,001
POL	Z	-6,644
	Asymp. Sig. (2-tailed)	<,001
SPA	Z	-2,872
	Asymp. Sig. (2-tailed)	,004

To answer the fifth hypothesis whether the age of the participants from all countries (CZE, POL and SPA) affects their own idea of practicing the Snoezelen-MSE see the tables below.

The hypothesis that older respondents can rather imagine working in Snoezelen room than younger respondents **was not fulfilled.**

Conclusion 5: Based on the results of the Kruskal-Wallis tests performed for respondents in all three countries, it can be stated that age plays a statistically significant role only in the Czech Republic, here older people can rather imagine that they work in Snoezelen in person. The p-value of the test criterion is less than 5 %. In Poland and Spain, the effect of age is not statistically significant when we are talking about the idea that the respondent works in Snoezelen in person.

Table 7: Age of respondents versus real work in Snoezelen room (Partial calculations for the Kruskal-Wallis test)

Country		Age	N	Mean Rank
CZE	I can imagine that I work in Snoezelen personally.	18–23	60	81,38
		24–30	30	75,72
		31–40	20	70,85
		41 and more	35	57,53
		Total	145	
POL	I can imagine that I work in Snoezelen personally.	18–23	29	53,16
		24–30	22	38,77
		31–40	17	45,38
		41 and more	25	48,20
		Total	93	
SPA	I can imagine that I work in Snoezelen personally.	18–23	57	40,47
		24–30	16	41,38
		31–40	2	33,50
		41 and more	4	31
		Total	79	

Table 8: Age of respondents versus real work in Snoezelen room (Kruskal-Wallis test statistics)

Test Statistics[a,b]		
Country		I can imagine that I work in Snoezelen personally
CZE	Kruskal-Wallis H	8,044
	df	3
	Asymp. Sig.	,045
POL	Kruskal-Wallis H	6,229
	df	3
	Asymp. Sig.	,101
SPA	Kruskal-Wallis H	0,998
	df	3
	Asymp. Sig.	,802
a. Kruskal Wallis Test		
b. Grouping Variable: Age		

4.3 CONCLUSION

Our research was conducted on students from three countries and universities. The conclusion can only be based on the sample populations from The Czech Republic, Poland and Spain.

In the first part of the analysis, we found out that students have different experiences with the Snoezelen-MSE method. Within three categories (1. I have heard of Snoezelen, but I have never seen it in practice; 2. I have seen Snoezelen in practice; 3. I have practical experience) we have come to the fact that there is a significant dependency between the type of experience and a group of students from each country. Most often, students from all three countries chose the possibility nr. 2 that they had seen Snoezelen in practice, but had not yet practiced it.

Regarding the possibility to use the unique and individual approach to the client, which is offered during the lessons in Snoezelen, neither of the two groups of respondents (those who have only theoretical experience and those who also have practical experience) did not differ significantly in their opinion. Both of these groups evaluated the possibility of using this method in order to individualize approaches very highly. Individualization of the approach to the client/patient is at the core of all modern helping professions, but it has

not always been emphasized as strongly as it is today. From this perspective, Snoezelen is a pioneering method, and at the same time convergent with the concepts of those such as Maria Montessori, Virginia Axline, Tom Kitwood, and Carl Rogers. This part of the Snoezelen education program appears already to be optimally planned and implemented, and, therefore, needs only to be maintained at its current level.

Subjectively, students think that the result of Snoezelen lessons and practising should be relaxation, not a change in behavior. The reason why students were more inclined to identify Relaxation rather than Changing of Behavior may be connected to the current situation regarding its implementation and practice in the helping professions, which primarily use the Snoezelen room atmosphere to calm and relax their clients, and eliminate stress, tension, and restlessness. It is quite logical that at this moment, more than ever – a time of unprecedented pressure on performance, and development of skills and mental resilience – it is necessary to create first a safe and calm environment with clients, which then forms the basis for any further action.

However, in order for both Snoezelen functions to be realized, it is necessary to extend the method of conducting sessions. In other words, in addition to so-called "Free sessions, Free Snoezeling", where appropriate, thematic sessions or sessions organized around a script should be introduced. This is a considerable challenge, since in thematic sessions/sessions around a script it is more difficult to comply with the principles: i.e., the opportunity for choice, the opportunity to set the pace. One should also pay special attention in order not to violate the Snoezelen postulate: "I don't have to do anything; I can do everything". This is a challenge not only for those working with Snoezelen, but also for educators of future Snoezelen therapists. The curricula must contain detailed instructions on how to conduct the two types of Snoezelen sessions. Naturally, even during free Snoezeling an activating element will be involved (e.g., in the intensification of perceptions). However, in many cases, special conditions must be created so that this function is sufficiently enhanced and made available to participants.

To confirm the fourth hypothesis subjectively, all groups of respondents/students think that a therapist should work in Snoezelen rooms more often than pedagogues. Of course, this view is based on the fact that most respondents will work as a therapist rather than an educator in their professional future. However, we are also inclined to the fact that the answer to this hypothesis is also influenced by the nature of the activities in Snoezelen, which are more related to therapies and psychotherapies than to the support of education and cognitive development of clients. This fact also applies to the existence of Snoezelen rooms, which are more often found in social services and day services than in schools.

The age of the respondents was a significant factor in the last analysis. We found that older students / graduates from the Czech Republic answered more positively than younger students when it comes to the practical use of Snoezelen. Within other countries, the results on this issue did not differ significantly.

We see Snoezelen, as a separate concept, as an innovation with many aspects, of which we would like to highlight and take into account, in particular, the highest rated, the social aspect and the human aspect. The purpose of integrating new strategies and approaches into the lives of people with special needs is to improve the quality of life, which is related to social equality, justice, inclusion and the individual development and support of each person.

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CONCLUSION

The Snoezelen-MSE concept is an approach that shows a new way for many people around the world. Snoezelen is not just an alternative method without a sound theoretical basis, this publication is proof that Snoezelen theory is evolving in a professional way. The practical positive experience makes it worth implementing in scientific fields that are very close to its goal of promoting the quality of life of people regardless of their age and diversity.

If we take a closer look at the theoretical essays for individual countries as conceived by individual experts and try to compare them conceptually and philosophically, we will find both congruent passages and systemic and procedural differences, which are most often related to the scientific intent of the selected disciplines.

All partner teams agree on the **dissemination of the Snoezelen concept**, mainly due to the practice and positive experiences of those who have started using the method. This initial praxeological support from the professional community was not supported by any theory for a long time. In fact, it was not until around the turn of the century that publications began to appear that would provide a theoretical basis for the Snoezelen concept. Thus, avoiding too much fundamentally binding theoretical information, the method entered various professions totally spontaneously. We have come to an explanation that Snoezelen as a multisensory environment became primarily established in institutional settings for adults and the elderly, and in special schools for students with severe combined disabilities, i.e. it became established in the population for which it had originally been created. Professionals who worked with this group thus began to create a **professional modification of Snoezelen.**

The first and very rewarding option that dominated the targeted use of Snoezelen was **leisure sensory stimulation**, which has fundamentally supported the improvement of the quality of most processes in the facilities and has also influenced the relationship of the professional and general public to the concept as such. Especially in regular sessions with individuals, a much more important effect began to emerge in multisensory environments, namely the **positive development of relationships between participants, the satisfaction of social needs, and, most importantly, a greater effort on the part of clients to communicate, to acquire and generally improve the psychological state of individual clients.** These results began to provide the impetus for many professionals to investigate the Snoezelen effect and, in particular, to continue activities in multisensory environments.

The authors of the sub-sections also mention the mapping of the number of Snoezelen in the countries, which resulted in at least around 400 rooms and multi-industrial environments

where the method is used. The spread of the Snoezelen concept is reported as **continuous and based on the number of certified professionals in the given field**. The community of professionals that is systematically joined in the International Snoezelen Assocciation strives to maintain limits on the principles and nature of the method. All the partners agree on the **need to preserve the 8 fundamental principles of Snoezelen** in theory and to maintain them in the context of a simplicity of theoretical propagation in courses and lessons for the public.

The main difference in mapping the implementation of the Snoezelen concept in different countries is the **setting of the methodology, the management of the work strategy and the methods used within the MSE**, which differ according to the findings and objectives of the scientific disciplines that promote Snoezelen. Although we know that the Snoezelen multisensory method can be used in the work of anyone who professionally encounters a community of people with different limitations, it is evident that Snoezelen varies according to the profession, according to the work objectives and based on the knowledge of methods and strategies in the theoretical and practical level. All the authors express a **certain amount of control of this method** within the directive and non-directive approaches of the professional during the sessions themselves. It is believed that since the origin of Snoezelen in the 1970s, when "the *method had absolutely no objective, and its functioning was more or less natural, mainly aimed at relaxation*", as Verheul stated in his interview in 2022 in Opava during a meeting of international experts who are currently involved in Snoezelen, the **method** has **adapted to the different scientific fields** under the hands of professionals**.** Its robustness is evident most in the section of the texts written jointly by all the partner teams which is dedicated to methods and forms, types of Snoezelen and its variability. On the other hand, **the differences in the approach and grasp of** this method by specific professions **highlight the unique characteristics of the whole concept, namely its flexibility and adaptability,** which is related to the simplicity of the theoretical basis of the method and promotes cooperation of all professionals involved in working with the client and their positive development in the psychosocial area.

As a result of the project and the cooperation of the international team, we have developed a **common curriculum** proposal for **the Snoezelen course**, reflecting the theoretical and praxeological consensus that emerged from the joint work, discussion and activities.

COURSE SYLLABUS

General information	
Name of the course	Snoezelen-MSE
Aim	The aim of the course is to obtain theoretical and practical information about working with the multisensory concept Snoezelen-MSE. The course consists of theoretical lectures and practical exercises. The theoretical part of the course is devoted to defining the basic principles, background, history and characteristics of Snoezelen-MSE in national and international context. In the practical part of the course, students will gain skills and experience in working in Snoezelen, focusing on information on the use, tools, techniques and principles of working towards different target groups of people.
Course scope, credit evaluation	Snoezelen-MSE is a basic course. Approximately takes 2 hours a week during the whole semester.
Outputs	**The credit evaluation is 5 ECTs.**
Professional knowledge	• Can define the multisensory concept of Snoezelen • Knows the history and context of the use of multisensory techniques and methods • Knows the epistemological foundations of the Snoezelen concept (principles, philosophy) • Knows the possibilities of using multisensory environments • Can describe the basic planes of the Snoezelen triangle and knows the principles of working in Snoezelen • The student understands the meaning of non-directivness and tasklessness of Snoezelen in theory and practice (non-direct sensory stimulation, non-direct communication etc.) • The students can interpret and use the multisensory stimulation as a form of communication in Snoezelen. • Knows the possibilities of practical use of Snoezelen.
Professional skills	• The students can arrange / evaluate the appropriate Snoezelen space / Snoezelen Room (avoiding mistakes, making necessary corrections etc.) • Can assess and analyse the use of a room for a particular person or group of people • Applies the knowledge of didactic principles, psychological principles and conditions of using a multi-sensory room in a specifically developed own methodology.

Contain	
Topics (of lectures)	• Defining the multisensory concept of Snoezelen in the context of the discipline and culture • Characteristics of the philosophy and principles of Snoezelen, its variability, aim and purpose. • The Snoezelen concept and its epistemological basis – original history and philosophy, anchoring in the contemporary world. • Definition of the Snoezelen triangle, including a detailed description of the three planes. The participants in the process and their tasks. • The environment of the multi-sensory room, including techniques, tools and all equipment. • Principles, rules, and didactic principles of working in the Snoezelen. • Examples of methodical use of the Snoezelen and practical exercises in the multisensory room. • Variety of multisensory room environments including techniques, aids and other equipment with a focus on the elderly. • Activation and relaxation in the Snoezelen. • Cognitive development – methods related to the issues of senior dementia and Alzheimer's disease. • Development of communication and socialization. Empathy and the importance of individual specific approaches. • Examples of specific uses of Snoezelen and practical training in multisensory room.

Evaluation	
Requirements	• **Written elaboration** of the methodology of work in Snoezelen involving a multisensory environment * and its **positive evaluation** by the teacher. • **Example of the task:** **Try to create one original lesson for a client with a specific limit/ special need. This lesson will have the following parts:* ***Description of the client:*** *age, special need (type of disability or description – e.g. a senior with early stages of dementia, a four year old child who has a problem with verbal communication, etc.) – You need to imagine someone specific – a professional description is not necessary, but characterize the person as much as possible, if you are able to get information about a specific person, you can do this in the form of a case study (see literature). Remember to focus on the SENSORY PROFILE.* ***Lesson Goal(s):*** *Ask yourself the following questions: what do I want the person to learn during this lesson, what do I want them to do, do I want to respond to some of their pathological behavior, do I want to guide them towards some change, do I want them to accomplish something specific? Anyway, REMEMBER that you always want to CREATE a POSITIVE EXPERIENCE!!! And even a small experience is good! THINK CREATIVELY and work with feedback about the multi-sensory room and its use – what all is there that you would use, or would you like to use something else?* ***Tools, techniques, resources used:*** *describe everything you will need to implement the lesson.* ***Focus on the following parts of the lesson: Introduction, Implementation of the active and relaxation part, Conclusion.*** ***Self-reflection and discussion:*** *try to respond to the pitfalls that might arise in the implementation of the lesson, e.g. try to think how the client might react, what might happen, what should precede the lesson, whether it should be continued, etc.*

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