

# 9th ICEVI European Conference 2017



**Empowered by dialogue**

## ABSTRACTS

9th ICEVI European Conference  
2 - 7 July 2017 - Bruges, Belgium



Monday 3/07/2017

11:00 – 12:15 Keynote lecture by

Prof. dr. Claudia Claes, Dean of the Faculty of Education, Health and Social Welfare Studies, Ghent University, Belgium



**Claudia Claes** (°1965) is dean of the faculty Health, Education and Social Welfare Studies of the University College Ghent and affiliated as a visiting professor at the Department of Special Education (“Orthopedagogics”) of Ghent University since February 2014. She graduated in 2011 on the topic “Inclusive Embedment of Person Centred Support; a Study of Critical Success Factors. She works as a lecturer and researcher at the University College Ghent and E-QUAL, a centre of expertise on Quality of Life. Since 2015-2016 she is the responsible teacher for the Master course Orthopedagogical Coaching and Consultancy. She is also teaching in other courses that the department of special education is responsible for. She is passionate by quality of life research, and tries to implement quality of life in daily life.

Quality of life, moving forward from deficit thinking to supports

Abstract is missing

14:00 – 15:30 Parallel Session I: Oral Presentations

Room 1: Early Childhood

- **Evolution of visual impairment in children and adults born preterm**

*Katrien Keppens<sup>1</sup>, Mieke Vandorpe<sup>2</sup>, Myriam Callemeyn<sup>2</sup>, Mieke De Pourcq<sup>1</sup>*

*<sup>1</sup>Centre of Expertise, De Kade, Spermalie, Bruges, Belgium, <sup>2</sup>Mobile service Accent, De Kade, Spermalie, Bruges, Belgium*

Preterm birth is known to be a risk factor for visual impairment. A strict follow up for retinopathy of prematurity (ROP) is organised by ophthalmologists in neonatal care units. ROP is detected and treated in an early stage over the past 20 years. Oxygen is strictly limited to prevent ROP.

There is no screening for cerebral visual impairment (CVI) before discharge from neonatal care units. In Flanders specialised centres follow infants and children born preterm: the centres for developmental disorders (COS). They have knowledge on CVI. In neonatal care units visual enriched environment are not yet provided. With this study, we want to investigate whether the current practise results in less visual impairment in children born preterm compared to the past.

The files of all individuals with a history of preterm birth asking for support from Spermalie were studied retrospectively from 2008 until 2015. Spermalie is an expertise centre for visual and/or auditory impairment. 75 persons are included. 11 have only auditory impairment. They are excluded for further study. 43 have ROP (mean age 21 year). 19 have CVI (mean age 13 year). 21 of the persons with ROP are blind (mean age 25 year). 2 blind children with ROP

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are born abroad. They are 8 and 15 years of age. 4 persons with ROP are severely visual impaired (mean age 28 year) and 19 are moderately visual impaired (mean age 16 year). The characteristics of those groups are given in detail in this presentation. Fazzi and Ricci are both working on an early screening program for CVI in neonatal care units. Preterm birth is still a risk factor for visual impairment. ROP screening remains important. Good follow up of ROP children is important for the rest of their life to detect retinal detachment in an early stage. Early visual stimulation is required in CVI. We believe early screening should be performed in all neonatal care units and early visual enrichment should be available and used in all units.

- **Get your coat: examining the development of the independent living skill of dressing in young children with visual impairment, young children with down syndrome, and typically developing children**

Jessica Hayton<sup>1,2</sup>

<sup>1</sup>UCL-Institute of Education, Department of Psychology and Human Development, London, UK; <sup>2</sup>Lifespan Learning and Sleep Laboratory, UCL-Institute of Education, London, UK

Dressing is a fundamental independent living skill (ILS). Vision is an integrative sense which affords a sighted individual to learn via observation. Visual impairment (VI) denies or restricts access to learning via sight. As a result of this reduced access, children with VI and conditions where VI may be a component (e.g. Down syndrome (DS)) require systematic and structured support to develop independence skills. This mixed-methods, repeated measures intervention study examined the effectiveness of novel intervention materials on the development of independent living skill of dressing (ILSD) in young children. N=27 (age range: 5-11 years) participants were drawn from three samples: VI (n=9; age range: 5;05 – 10;02 years); DS (n=9; age range: 5;05-10;00 years); and, Typically Developing (TD) (n=9; age range: 6;05-8;00 years). The effectiveness of the intervention materials was measured within and between the three outlined groups over a 10 week period. The assessment of the longer-term impact was made 1 and 3 months post-intervention between and within the VI and TD groups.

This paper reported that the novel intervention materials did aid the development of ILSD in all three groups. Clear and systematic verbal instruction combined with motor activities were useful in supporting ILSD. The findings could form a model for future work regarding the development of ILS in other skill areas and in relation to other clinical groups e.g. Williams Syndrome.

- **Early intervention for visually impaired children: terms and stages of compensation of blindness in the first year of life**

Ludmila Myasnikova<sup>1</sup>, Vladimir Ruchin<sup>2</sup>

<sup>1</sup>Department of Psycho-Pedagogical and Special Education, National Research Saratov State University, Russia, <sup>2</sup>Department of Sociology, Social Anthropology and Social Work Yuri Gagarin State Technical University of Saratov, Russia

Cognitive and motor development of a blind child at an early age requires strong compliance with a number of conditions for the effective formation of his brain.

1. The process of formation of the human brain begins within fetal period. The peak of activity is in the first 12 months. Children are born with a brain ready to learn, but a blind child needs additional assistance for the realization of inherent potential.
2. Specificity of brain mass growth is determined by the formation of neural connections. Parental incompetence reduces the chances to acquire this experience.
3. Preservation of neural connection requires multiple living through the life experience.

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Blind children lack the necessary volume of visual information, and a small amount of life experiences significantly affects their psychomotor development.

4. The first six months - is the period of the most active formation of neural connections. Very often, parents spend their time to search for the child treatment procedure without thinking about the importance of special measures for their development. As we know, «Use it - or lose it», as neurons either form neural connections, or die.

5. Physical exercises contribute to the formation of new brain nerve cells responsible for the formation of cognitive skills. It often happens that a blind child in his early period moves little and his vestibular system develops slowly, so the active movements are decelerated. All this affects his play and objective activity. Russian scientist L. Solntseva identifies three stages of blindness compensation at an early age in her methodology. The first one and a part of the second stage relate to the first year of a child's life. They are associated with multi-sensor nature of perception, that is, reactions to complex stimulus. The focus of the methodology is to communicate through the active excitation and stimulation of complex intact analyzers.

### Room 2: **School Age**

- **BRAITICO. A new braille literacy method of ONCE, using ICT**

*Elena Gastón*

*ONCE, National Organization of the Spanish Blind, Resource Center of Madrid*

Braitico is a new Braille literacy method, born as a need to renew the didactics of Braille teaching, for the following reasons:

- The use of Braille was decreasing.
- Many students know the code, but do not use it effectively.
- Some teachers know Braille, but they do not know how to teach it.
- There is no clear idea on how and when to start children in Braille
- There is a lack of attractive materials appropriate to the new times.
- Sometimes, there are great difficulties in deciding the literacy code.
- There is a need to incorporate ICT for learning Braille.

Braitico is based on the following principles:

- Braille is not a method, it is literacy.
- "Learning Braille" is not the same than "Learning in Braille"
- Motivation is the basis of learning
- A need to respect the child's rhythm and reduce their stress
- Braille efficacy depends on many factors: interest, experiences, phonological skills...
- The use of ICT favors self-esteem, motivation and inclusion in learning Braille.

Braitico consists of four modules:

1. Little hands. Skills prior to Braille (0 to 2 years). Objective: Arouse desire.
2. On point. Pre-reading and prescribing in Braille (2 to 4-5). Objective: Intentional learning.
3. Brailleo. Learning letters and numbers in Braille (4-5 to 7-8) Objective: Teaching formal Braille.
4. Super Braille 4.0. Efficiency reading and writing (7-8 to 12-13). Objective: Strengthen Braille and resources to use it normally.

- **The development of online resources to support the effective assessment and teaching of literacy through braille**

*Rory Cobb<sup>1</sup> and Steve McCall<sup>2</sup>*

*<sup>1</sup>Royal National Institute for Blind People, Birmingham, United Kingdom; <sup>2</sup>School of Education, University of Birmingham, United Kingdom*

This presentation provides an overview of two new online resources to support the development of effective braille literacy skills by children with severe vision impairment.. Both resources were developed to meet the needs of qualified teachers of children with vision impairment (QTVI) working with braille users in mainstream schools, in response to national concerns about the quality of the teaching of literacy through braille. They utilise the Moodle virtual learning platform and have been created by an experienced instructional designer.

The first resource is an online training programme entitled 'The effective teaching of literacy through braille'. It comprises interactive study materials, video and online discussion activities, and requires around 80 hours of study over 6 months. The programme has been studied by around 40 QTVIs since 2014 and has received very positive evaluations.

The second resource is an interactive version of the Learning Media Assessment tool, developed in conjunction with Cay Holbrook and Texas School for the Blind. The new online UK LMA has been updated and adapted for the UK context to provide QTVIs and their colleagues with a structured framework to record and justify decisions about the choice of learning and literacy media for pupils with vision impairment over time.

The presentation will describe how the key elements of both resources were identified, designed, developed and implemented. Excerpts of both resources will be presented along with feedback from users. The presentation will conclude with a discussion of their applicability to an international audience.

- **Audio description and students with visual impairments: what use for what benefits?**

*Nathalie Lewi-Dumont<sup>1</sup>, Lorraine Crépel<sup>2</sup> and Laetitia Dumont-Lewi<sup>3</sup>*

*<sup>1</sup> EA 7287 Grhapes – INS HEA, Suresnes, France; <sup>2</sup> Institut national des jeunes aveugles, Paris, France; <sup>3</sup> Labex Arts-H2H, Université Paris Lumières, France*

The study of still or moving images is part of primary and secondary school curricula in France. Teachers are also encouraged to take their students to cultural venues (museums, movies, live shows, exhibitions...) in order to broaden their culture and to connect various school skills and knowledge, together and with social life. When teachers have a student with a visual impairment in their class, the issue of making visual elements accessible arises. In a context where inclusion is becoming more and more frequent, teachers need to find strategies for students to understand the role of images, for students with low vision and blindness to build a representation of images that surround them and which they have to study (Crépel, 2011; Lewi-Dumont, 2016). Audio description has developed in France, particularly since the law of 11th February 2005 on equal rights and opportunities, participation and citizenship of people with disabilities and also in other countries (Taylor, 2013). We are proposing to study the use that teachers make of audio description, by analyzing a written questionnaire (6 main items) sent to regular and specialist teachers in charge of students with visual impairments in order to analyse its benefits and limits, both in terms of learning and on a psycho-social level. When it comes to making pupils audio-describe short films, this could be a good learning tool in several subjects for both sighted and visually impaired students, and also a good way to promote the abilities of students with visual impairments in inclusive school settings. We will show it qualitatively through direct observation and interviews of secondary school students and teachers. The study is in progress during the school year 2016-2017.

**Room 3: School Age**

- **The assessment and development of digital literacy in students with vision impairment and additional learning needs: Preliminary findings from a current PhD study**

Emily H. White, Kerry Wood and Shiralee Poed  
University of Melbourne, Melbourne Graduate School of Education, Melbourne, Australia

Digital literacy is a 21st century skill for all students (Griffin, McGaw, & Care, 2012). Many teachers cite difficulty assessing and teaching this domain, despite technology's ubiquity. This is problematic for students with additional needs as digital literacy enables technology use to access opportunities for learning. For students with vision impairment, the ability to use a computer and the internet is associated with higher literacy test scores (Li et al., 2012), and technology use supports improvements in learning maths (Bouck, Meyer, Joshi, & Schleppebach, 2013). This presentation will share preliminary findings of a current PhD study of 1,418 students, which aims to support teachers' recognition of digital literacy in students with additional needs, and will focus on those students with vision impairment in the study. The study is built on previous work by Woods and Griffin (2013), and applies partial credit item response modelling (Masters, 1982) to develop a progression of digital literacy for these students. The presentation will discuss reliability indices, item and person fit statistics, and DIF to examine impacts of teacher background characteristics (such as self-efficacy with technology) and student background characteristics (such as assistive technology use) on their respective ability to assess and develop digital literacy. The derived learning progression will be presented to describe levels of digital literacy as it emerges in these students. The results of this study may assist teachers to understand the digital literacy of students with additional needs, including vision impairment, and what they are likely to be ready to learn next.

- **Twenty-first century learning skills for MDVI students**

Dick Lunenburg, Meerlo M.  
Bartiméus, department Bartiméus Fablab, The Netherlands

A "lifebook" is a communication aid for individuals with MDVI. Each book contains personalized information about the client, such as hobbies, memories, friends, and family. The book provides a medium through which the client can communicate about the things most important to them. In this presentation we will demonstrate how the tool was developed, share our experiences of implementation in a large residential community of clients with MDVI, and show how the lifebook is now being adopted by other organizations throughout the Netherlands and across different target groups. A key aim of the project was to develop a tool that is extremely easy to use by staff and family, even with little or no background in ICT, so that it can be used across settings and reach a wider audience. Working together with the client, you can create a unique lifebook, composed of photos, sounds, and movies, through one on-line platform, and can configure the user requirements to meet your client's specific needs (whether they are blind or partially sighted, have physical limitations, and even if needs vary across time). We will also demonstrate how easily the clients themselves learn to use their lifebooks as communication aids, and the impact this new approach has on their lives. For example, in individuals with degenerative disorders, such as Batten disease, the lifebook enables them to communicate with their friends and family about previous life-events and memories that might otherwise have been lost.

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- **Together successful – Five years of inverse inclusion at Betty-Hirsch-School, Nikolauspfllege Stuttgart, Germany**

*Anne Reichmann*

*Manager Division Infantile and School Education, Nikolauspfllege Stuttgart, Germany*

Betty-Hirsch is a primary and secondary school as well as a special school for learning disabled children at the Nikolauspfllege Stuttgart, Germany. Until 2011 this school was exclusively accepting children with visual disabilities. In the context of the UN Disability Rights Convention the federal state of Bade-Württemberg released a program that enabled schools to test new organizational forms of school education for people with blindness and visual impairment. Based on this, an intensive school development process was initiated at the Nikolauspfllege that resulted in the launch of the first inclusive class in September 2011. The Betty-Hirsch-School accepts children without visual restrictions ever since. Pupils who have special needs because of blindness or visual impairment still have full access to expertise in diagnosis and intervention. In addition, they now get the chance to increase their social competencies by learning together with classmates that are well sighted. Children without visual impairments in turn, benefit from a high-quality, individually designed learning opportunity. Besides that, they learn in an environment that supports self-development in an outstanding way. Furthermore, they experience diversity and realize its value. Those competences are getting increasingly important in social as well as professional life. We are now looking back on the experience of five years successful inverse inclusion. The Betty-Hirsch-School became a place where inclusion is practiced every day. Furthermore, extensive changes on the campus spilled over to the neighborhood, where we can observe a potentiating effect of inclusion among the citizens of our district.

<b>Room 4:</b> <b>Young adults</b>
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- **Non-verbal communication**

*Roselinde Strosse and Laurence Foulon*

*Spermalie, vzw De Kade, school intervention team, Bruges, Belgium*

Visual information is everywhere. The impact of this emphasis on the life of the blind and visually impaired is substantial. We want to demonstrate the effect of this evolution on the non-verbal behaviour. This behaviour provides us with a lot of information about conversations and interactions. The blind and the visually impaired will not be able to perceive (subtle) nonverbal communication. To be unable to see how others respond can have a great impact on understanding the effects of their behaviour. This could result in social isolation, misconception and loneliness. To demonstrate the impact on social life and the school environment, we'll make use of testimonies of young adults. The difficulties they experience during breaks at school or the challenge of having a (romantic) relationship are two examples that show the importance of nonverbal communication. The testimonies will be alternated with solution-orientated approached videos, by offering tips and tricks regarding social skills for the visual impaired. The environment can also have a positive influence by being subtly supporting. We will demonstrate this with "do's and don'ts". The testimonies and videos, with audio description, will be merged into a short movie. We'll give an oral presentation that allows us to emphasize the importance of awareness for the challenge of good communication. A poster with a strong image and quote will draw the attention, and will give us the chance to present our short film. It will be an eye catcher that allows the visitor to step into the world of the blind and visually impaired.

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- **Solidarity in Sight: A Social and Psychological Support Program for young adults**

*Sarah De Ruyck and Lorenzo Billiet  
Blindenzorg Licht en Liefde, Varsenare, Belgium*

Our organization, Solidarity in Sight, offers an overall Home Assistance Program for adults with visual impairment. Within this group, we determined that young adults between the ages of 18 and 30, are vastly underrepresented. The transition from childhood to adulthood seems to be a breaking point, after which these youngsters disappear off the radar, often to return at a later age, where they find themselves in a situation that is even more vulnerable than before. Since February 2014, Solidarity in Sight is addressing this issue by developing a guidance and service program, specifically designed for and focused on these young adults. Our main objective is to make sure that this target group, during the transition to adulthood, can find its way back to our variety of services in time and when needed, in order to avoid unnecessary problems later on in life. The goal is to further develop their previously acquired knowledge and skills, and to integrate these into all aspects of a mature and independent life. We aim to achieve this by working together with these young adults and other youth organizations (from the start) in order to attain a more integrated and inclusive approach towards a maximum participation in society. As a professional organization, we stress the importance of pursuing this goal with them, rather than for them. We offer individual guidance sessions, and have expanded our program to include continuous peer support group, and a wide variety of thematic workshops, activities, lectures and a guided holiday camp. The goal of the program is to empower young adults with visual impairment and maximize their possibilities, by stimulating these young people to become more active, take more initiative, and take charge of their destinies. This in turn opens the door to an increased self-reliance and positive feeling of self-worth. The workshop wants to initiate a dialogue with people who actively work with young adults with a disability by sharing "good practices", giving people the opportunity to learn from each other and share experiences.

<b>Room 5:</b> <b>Adults</b>
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- **Mindfulness-based treatment for persons with a visual impairment or visual-and-intellectual disabilities**

*Hannelies Hokke<sup>1</sup> and Paula Sterkenburg<sup>1,2</sup>  
<sup>1</sup> Bartiméus, department of psychotherapy, Doorn, the Netherlands; <sup>2</sup> Vrije Universiteit  
Amsterdam, Clinical Child and Family Studies, Amsterdam, The Netherlands*

Recently there is more scientific support for the positive effect of mindfulness-based treatments. Mindfulness appears to be effective in the treatment of anxiety, stress and pain. In this presentation we will focus on mindfulness for persons with a visual impairment or visual-and-intellectual disabilities who experience high levels of stress. We will present best practices as well as results from our pilot study (n=2) on the effect of mindfulness for persons with visual-and-intellectual disabilities. The pilot study indicated that persons with visual-and-intellectual disabilities also benefit from mindfulness as it reduced stress and improved their well-being. The results showed that there is a decrease in aggression and anxiety. The effects of mindfulness training for the caregivers were also examined and indicated that the self-efficacy of the caregivers increased after the training.

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- **A visual impairment is not just about seeing and watching. Get a view of the different aspects and dimensions of the emotional process.**

*Heidi Deknudt*

*Blindenzorg Licht en Liefde, Gent, Belgium*

When you get a visual impairment, this requires an adjustment. After all, not only the vision is affected, too often people also experience a restriction in the activities that they can do. On top of this they can start doubting their role in the society, as well as the meaning of life. Of course, such adjustment is not without a fight. One can consider this as a specific process of bereavement. In this presentation, I will explain different aspects of this emotional process:

- What is the impact of bereavement? I will explain this on five different dimensions: the body – the emotions – the behavior – the context – the meaning
- A 'normal' process is an oscillation between two movements: a movement towards the processing of the loss (with the risk of depression when one gets stuck in this) and a movement towards recovery (with the risk of delayed bereavement when one gets stuck).
- Acceptance versus adaptation.
- The pattern of attachment and the influence this gives on maintaining relationships, on the acceptance of help, be it from family or friends, be it from professionals.
- Risk of depression.
- Possibilities of and conditions for personal growth.

- **Measuring the effect of functional rehabilitation on quality of life**

*Sophie Demoustier and Stéphanie Demartin*

*Œuvre Fédérale Les Amis des Aveugles et Malvoyants, Ghlin, Belgium*

Visual loss, irremediably affecting the sensory integrity of an individual, results in a loss of overall autonomy and many social and professional consequences. Several studies demonstrate the presence of a depressive character related to visual impairment. It would increase proportionally to the deterioration of the quality of life, when visual loss is perceived as a major source of interference in everyday life. In this context, functional rehabilitation aims to increase autonomy and quality of life by the implementation of mechanisms for adaptations and compensation. It seems useful to analyze the question of the assessment of the quality of life at the beginning and end of rehabilitation, to reach the way the person lives its visual impairment situation and to measure the impact of the rehabilitation on quality of life, through the process of handicap adjustment that the person will set up. The assessment, approaching the person in his real-life experience, feelings, individuality and singularity, allows the professionals to get closer to patients by taking into account their physical and psychic state and their therapeutic wishes. Nevertheless, few surveys are specific to the quality of life in ophthalmology or focus only on the objective side. On the basis of the criteria commonly attributed to these scales (physical, psychological, social, somatic), we have therefore devised a scale to meet the specific needs of a functional rehabilitation center. The objective of our presentation will be to present the assessment tool, its construction and the resulting observations.

- **The Role of “Gender”, “Islam”, and “Turkish Culture” on Independence of individuals with Visual Impairments.**

*Onder Islek*

*Aksaray University, Department of Special Education, Aksaray, Turkey*

Introduction/Objective: Through my personal experiences as a person with visual impairment (VI) within the Turkish education system, as well as my further education studies and professional work in Turkey, the USA and England, I became interested in how the education system prepares students with VI for life after school. This related to the formal qualifications students may achieve, but also concerned broader outcomes related to employment, independence, inclusion in the community and general life fulfilment. Such a focus arguably cuts to the very essence of what an education system is for, and how schools should serve students with a VI. This interest guided me to develop an exploratory study which is seeking to explore the perspectives of young adults with VI, and educators who are serving students with VI in order to determine:

- the experienced balance of the curriculum content (Expanded Core Curriculum vs. academic curriculum)
- the direct and indirect consequences of this experienced curriculum balance on lives of individuals with VI
- the ideal curriculum balance should be available for students with VI
- the barriers to and enablers for the implementation of a balanced curriculum
- other factors influence the independence of individuals with VI (other than the ECC and associated teaching)

Method: The exploratory study gathered evidence from twelve young adults with visual impairments and thirteen educators who are serving students with VI in Turkey via semi-structured interviews to answer the research questions.

Results/Conclusion: This study revealed important issues regarding the existing Turkish education system especially in promoting independence of individuals with VI. Although these findings show similarity with main stream literature, there are unique findings. This session will focus on these unique findings, especially will provide a summary of the key findings on the role of “gender”, “Islam” and “Turkish culture” on independence of individuals with VI which is anticipated to assist researchers and practitioners in developing a deeper understanding of unique needs and challenges faced by students with VI who are coming from Islamic background throughout Europe.

- **If vision matters**

*Renate Walthes<sup>1</sup>, Sonja Breitenbach<sup>1</sup>, Christiane Freitag<sup>1</sup>, Friederike Hogrebe<sup>1</sup>, Lea Hyvärinen<sup>1,2</sup> and Namita Jacob<sup>1,3</sup>*

*<sup>1</sup>TU Dortmund University ProVisioN, Dortmund, Germany; <sup>2</sup>University Helsinki, Helsinki, Finland; <sup>3</sup>ITT Chennai, India*

Children born with visual processing problems are usually unable to tell what makes their vision different from that of other people. These children show a broad variety of behaviors in order to master social and educational requirements that can indicate their visual processing difficulties in specific life areas. Therefore, it is crucial to develop approaches which help to observe and assess strategies for everyday life, at home, kindergarten and school. To consider their behavior and reportings as their own individual solution for a specific visual demand may help professionals to better understand these children and to develop appropriate support for them. Pro-VisioN (Processing visual information in Children)

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studies visual abilities as well as the child strategies in responding to the demands of a task using multiple methods, including conversations with the child and family, observation of the child's strategies including eye-tracking, standardized tests such as visual acuity and documentation of oculomotor functions. Based on the visual profile of Hyvärinen and Jacob (2011), we will present first results of the assessment and follow up of 200 children.

<b>Room 7:</b> <b>Museums and People with Visual Impairments: the case of the BaGMIVI project (14:00-17:30)</b>
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**Introduction:** The BaGMIVI project titled "Bridging the Gap between Museums and Individuals with Visual Impairments" aims to support museums to develop various practices in order to enhance the access and inclusion of people with visual impairments into their context and content. This symposium attempts to describe networks which have been developed under the auspices of the BaGMIVI project highlighting the need for collaboration and interagency partnerships between museums, educational settings and individuals with visual impairments. In specific, five presentations constitute the backbone of this symposium.

The 1<sup>st</sup> presentation focuses on current and future trends which take place in the context of the contemporary museum regarding issues such as access, accessibility and equal participation of people with disabilities.

The 2<sup>nd</sup> presentation describes the Bulgarian network which will put the emphasize on the interactions between a gallery, university and special school for visually impaired in providing access to ancient and contemporary art within the Bulgarian context and contribution in the project.

The 3<sup>rd</sup> presentation describes the Hungarian network which focuses on the cooperation of the main actors in designing and creating accessible museum programs for different age group of children with visual impairment.

The 4th presentation describes the Romanian network which aimed at key-issues in design and development of differentiated educational programs. The Romanian network put great emphasis on museum positive experience, notions of accessibility as well as on active participation during museum visits.

The 5th and the last presentation of this symposium focuses on the positive value of museum staff training which lead to fruitful development of accessible museum material and inclusive museum-educational programs based on the principles of Design for All.

- **Current and future trends in museums regarding visitors with disabilities: the case of visitors with visual impairments**

*Vassilis Argyropoulos, Magda Nikolarazi, Charikleia Kanari, and Sofia Chamonikolaou  
University of Thessaly, Department of Special Education, Volos, Greece*

It is stated that over the past decades museums have developed educational programs for students with disabilities, making adaptations according the disability and the needs of each group. Nevertheless, few studies have underlined the value of collaboration between museums and schools in the learning and inclusion of students with disabilities. People with visual impairments, which is one of the target groups of the proposed project, face many barriers regarding their access to museums, since museums are considered as spaces "of seeing" and "do not touch". Many museums around the world develop various practices in order to enhance the access of people with visual impairments, such as touch collections or audio guides, but many disabling barriers still exist. Examples of barriers may be: a. museums have a tendency to encounter visitors with visual impairments as a homogeneous group and therefore treat them as a group with a single characteristic, their lack of sight, b. the poor content of special programs that museums organize for individuals with visual impairments,

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and c. museum staff's attitudes and behaviors, who are often not trained to make individuals with visual impairments feel welcome in the museum. As a result, visitors with visual impairments who want to expand their knowledge in the museum are not easily satisfied. The presentation concludes by highlighting the contemporary role of the museums, the socio-anthropological paradigm for disability and the influence of many political and social movements of people with disabilities.

- **Interactions between a gallery, university and special school for visually impaired in providing access to ancient and contemporary art: the Bulgarian case**

*Mira Tzvetkova-Arsova<sup>1</sup>, Vladimir Radoulov<sup>2</sup>, Margarita Tomova<sup>1</sup>, Rumiana Ioneva<sup>3</sup>, Rositsa Chisheva<sup>3</sup> and Emanuela Stoilova<sup>2</sup>*

*<sup>1</sup>Department of Special Education and Speech Therapy, Sofia University "St Kliment Ohridski", Bulgaria; <sup>2</sup>Bulgarian Association for Education of Visually Impaired Children; <sup>3</sup>Rakursi Gallery*

In the past 20 years certain efforts have been done in Bulgaria in order to provide more access for people with disabilities in general, and for visually impaired in particular, to museums, art galleries and other public places which offer art exhibitions. Traditionally visually impaired people are not frequent visitors of museums and galleries due to the barriers put to them in these places and the lack of appropriate and accessible ways to perceive the exponents. The BaGMIVI project aims to help these art institutions become more open, friendly and willing to accept more visitors with visual impairments, thus offering them accessible audio, tactile etc. ways to get closer to their exponents. As Rakursi gallery is the only gallery within the project, it is an excellent example to show how a private art institution can be open to meet the specific needs of visually impaired visitors and to develop a friendly environment to them adapting its exponents or creating new ones. The presentation will show also the role of the university and an association for visually impaired in the process, offering specific training to the gallery staff, and interacting with the special school for visually impaired.

- **The cooperation of university, museum and special school for adapting the environment and creating new educational opportunities for children with visual impairment in museums: the Hungarian case**

*Krisztina Kovács<sup>1</sup>, Beáta Prónay<sup>1</sup>, Erzsébet Szűcs<sup>2</sup> and Ágnes Somorjai<sup>3</sup>*

*<sup>1</sup>ELTE University, <sup>2</sup>King Saint Stephan Museum, <sup>3</sup>School for the Blind, Budapest, Hungary*

Museums in Hungary have opened their gates to provide accessible exhibitions for people with disability since the 90's. Museum educators are professionally trained at universities. Besides these developments, people and especially children with visual impairment still have to face obstacles when visiting museums. BaGMIVI project gave us the opportunity to link universities as training institutes of special teachers, museums who wish to provide accessible exhibitions and programs and schools for blind children as consumers in order to create educational programs in the museum. The presentation will show the different actors and their roles in the creative work of organizing accessible museum-pedagogic program for different age group of children with visual impairment. Quality analysis of the three programs will be presented.

## ABSTRACTS

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- **Empowering people with visual impairments to visit museums by developing differentiated educational programs**

*Andrea Hathazi<sup>1</sup>, Adrian Rosan<sup>1</sup>, Tudor Salagean<sup>2</sup> and Tekla Totszegi<sup>2</sup>*

*<sup>1</sup> Special Education Department, Babes-Bolyai University, Cluj-Napoca, Romania; <sup>2</sup> The Transylvanian Museum of Ethnography, Cluj-Napoca, Romania*

The relationship between museums and people with visual impairments must be realized in both directions, that is museums should be organized in such a way to encourage participation of people with visual impairments to access different exhibitions, but people with visual impairments must also present not only the willingness to visit the museums, but also the skills that support their independence. Opportunities are fewer whenever there are no organized activities, initiatives can be taken with difficulty, if the person with visual impairment considers that there are a lot of significant physical, informational, language and attitude barriers that there are difficult for him to overcome. The present project aims to support people with visual impairment to access museums as they find the visits relevant and accessible. The museum developed differentiated educational programs so that not only the experiences are positive, accessible, permanent, relevant, but also participation is encouraged. There were taken into consideration all the factors that could contribute to a holistic experience that include tactile experiences, conceptual development, access to knowledge and traditional materials, cultural values, traditions, stories, positive emotions.

- **Bridging theory and practice in developing inclusive practices in museum: The Greek case**

*Vassilis Argyropoulos<sup>1</sup>, Magda Nikolaraizi<sup>1</sup>, Charikleia Kanari<sup>1</sup>, Sofia Chamonikolaou<sup>1</sup>, Marina Plati<sup>2</sup>, Eleni Markou<sup>2</sup> and Betty Leotsakou<sup>3</sup>*

*<sup>1</sup>Department of Special Education, University of Thessaly, Volos, Greece; <sup>2</sup> Department of Educational Programmes, Museum of Cycladic Art; <sup>3</sup> President of the ICEVI-Europe, President of the CERB in Greece*

The development of inclusive practices in museums presupposes, among others, the conjunction between theory and practice, a well-established interdisciplinary approach and a well-organized collaboration between people with different specialties at different levels. A crucial factor for the enhancement of access to museums for individuals with visual impairments is the training of museum staff in issues of disability, visual disability, inclusive education, access and differentiation. In this context training courses were organized for the staff of the participating museums in order to update their knowledge and provide them hands-on experience through workshops. The purpose of these training courses was to inspire and equip all members of the museums with ideas and alternatives in order to develop their own accessible and differentiated museum educational programs or/and material. This presentation will focus on the Greek participating museum which is the well-known Museum of Cycladic Art (MCA). Themes of the training in the MCA are presented and a multi-level of collaboration is highlighted which took place among University of Thessaly, MCA and the Greek special school of the blind in Athens. The presentation concludes with a. the outputs of the MCA, b. the differentiated museum educational programs, and c. blind students' reflections from their visits in MCA.

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Monday 3/07/2017

16:00 – 17:30 Workshop Session I

**Room 1:** QoL

*Remco Mosterd*

Abstract missing

**Room 2:** All I need is time and practice: Multisensory projects for children with visual impairment and additional needs

- **All I need is time and practice: Multisensory projects for children with visual impairment and additional needs**

*Gerti Jaritz*

*University College of Teacher Education Styria, Professionalization in Early Childhood and Primary Teacher Education, Graz, Austria*

Everyday life themes constitute an important part of our lives. However, there is never enough time in school education, and especially not in the education of children with vi and special needs. Learning by imitation and accidental learning is impossible or very limited in the case of visual impairment. Therefore this kind of learning must be a part of the specific curriculum. In the two- year research project at the University College for Teacher Education our primary goal was to create best practice models together with colleagues as examples for inclusive or special education. We pursued the following research questions:

- What are opportunities and challenges of multisensory teaching? What are the necessary context conditions for good learning experiences of students in inclusive or regular settings?
- What are the profits of the process-based work in projects for all students?
- How can we measure the students' understanding at the beginning and at the end of the project?
- How can we monitor the progress of experience and knowledge?

The findings of the learning in different contexts were presented in case stories. Examples of materials are shown. The final product, a book "Gib mir Zeit .... und vieles wird möglich" is exhibited.

**Room 3:** Visual impairment and autism spectrum disorders: customised assessment and care throughout the life course

**Introduction:** Members of the European Network on Psychology and Visual Impairment will present different perspectives on working with clients who are visually impaired and have ASD.

Mathijs Vervloed (Netherlands) will present an overview of symptom overlap and differentiating characteristics of ASD and sensory impairments in people with multiple disabilities. Also he will elucidate the development of the OASID, a new assessment instrument for ASD in people with intellectual and sensory impairments.

Joan Curran and/or Sinead Fitzpatrick (Ireland) will address the question how to adapt standardised tests for ASD concerning children who are blind or partially sighted. More specifically they will present their adaptations of the ADOS-2 kit.

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Kim de Verdier (Sweden) presents a research project in which the prevalence of ASD is examined among blind children in Sweden. Also an in-depth study was conducted with the aim to describe experiences of pedagogical solutions and support provided to children with blindness and ASD, and their families.

Hans van den Heuvel (Netherlands), working with adults with visual and multiple additional impairments will present case studies that clarify the necessity for an individual, customised approach when visual impairment, ASD and often other disabilities are combined.

Participants of this workshop will be invited to share their experiences with customisation from assessment to interventions and support of people with VI and ASD in all age categories.

- **Visual Impairment and Autism Spectrum Disorders: customised assessment and care throughout the life course**

*Peter Verstraten<sup>1</sup>, Mathijs Vervloed<sup>2</sup>, Joan Curran<sup>3</sup>, Sinead Fitzpatrick<sup>3</sup>, Kim de Verdier<sup>4</sup>, Hans van den Heuvel<sup>1</sup>*

<sup>1</sup> Robert Coppes Foundation, dept. Expertise, Innovation & Knowledge, Vught, the Netherlands; <sup>2</sup> Radboud University, Nijmegen, the Netherlands; <sup>3</sup> Child Vision, Dublin, Ireland;

<sup>4</sup> The National Agency for Special Needs Education And Schools and Stockholm University, Stockholm, Sweden.

Members of the European Network on Psychology and Visual Impairment will present different perspectives on working with clients who are visually impaired and have ASD. Mathijs Vervloed (Netherlands) will present an overview of symptom overlap and differentiating characteristics of ASD and sensory impairments in people with multiple disabilities. Also he will elucidate the development of the OASID, a new assessment instrument for ASD in people with intellectual and sensory impairments. Joan Curran and/or Sinead Fitzpatrick (Ireland) will address the question how to adapt standardised tests for ASD concerning children who are blind or partially sighted. More specifically they will present their adaptations of the ADOS-2 kit. Kim de Verdier (Sweden) presents a research project in which the prevalence of ASD is examined among blind children in Sweden. Also an in-depth study was conducted with the aim to describe experiences of pedagogical solutions and support provided to children with blindness and ASD, and their families. Hans van den Heuvel (Netherlands), working with adults with visual and multiple additional impairments will present case studies that clarify the necessity for an individual, customised approach when visual impairment, ASD and often other disabilities are combined. Participants of this workshop will be invited to share their experiences with customisation from assessment to interventions and support of people with VI and ASD in all age categories.

- **Assessment of Autistic Behavior in People with Multiple Disabilities**

*Mathijs Vervloed and Gitta de Vaan  
Radboud University, Behavioural Science Institute, Nijmegen, Netherlands*

In people with sensory and intellectual disabilities behaviors that resemble Autism Spectrum Disorders (ASD) are often encountered. In a four year project we have tried to disentangle symptoms of ASD from behaviors resulting from sensory and intellectual impairments. As an introduction we first look at symptom overlap and differentiating characteristics of ASD and sensory impairments. Then we will present a critical review of current screening and diagnostic instruments for autism spectrum disorders in people with sensory impairments in addition to intellectual disabilities. Because current instruments do not suffice we designed a new assessment instrument, OASID, which we have been working on to assess ASD in people with combined intellectual and sensory impairments. In the last part we present our data on ASD, mental health problems, stress reactions and stereotyped behaviors in people with combined intellectual and sensory impairments.

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- **Visual impairment and Autism Spectrum Disorders - Can standardized assessment tests be adapted to assist in providing a robust diagnosis of Autism Spectrum Disorder in children who are blind or who have visual impairments?**

*Joan Curran, Audrey Darby, Audrey Farrelly, Sinead Fitzpatrick*  
ChildVision, Dublin, Ireland

This paper considers the issues that arise in attempting to use standardized assessment measures in providing a differential diagnosis of Autism Spectrum Disorder for children who are blind or who have severe visual impairments, and who also present with autism-like behaviours. The main challenges include access and interpretation. The paper describes an ongoing Pilot study that is currently under way at ChildVision, which is the National Education Centre for Blind Children in Ireland.

- **Blindness and autism spectrum disorder in children: Prevalence, diagnostics and reflections on the support**

*Kim de Verdier*

Abstract missing

- **Visual impairment and Autistic Spectrum Disorder: customised care illustrated in case examples**

*Marit van Buijsen, Hans van den Heuvel, Peter Verstraten*

<sup>1</sup>*Robert Coppes Foundation, Expertise, Innovation and Knowledge (EIK), Vught, the Netherlands*

People with a visual impairment in combination with an autistic spectrum disorder (ASD), are faced with an exponential impact of their impairments in their daily life. These people need a customized care. This impact and customized care is illustrated in the description of the case examples of two women living in a residential care facility of the Robert Coppes Foundation. These case examples show the complexities of this people and their care givers are faced with every day.

### Room 4: **Apps for mobile devices: how to distinguish accessible apps from inaccessible apps**

- **Apps for mobile devices: how to distinguish accessible apps from inaccessible apps**

*Jeroen Baldewijns, Eline De Ganck*

*Vlaams Digitaal Oogpunt, Blindenzorg Licht en Liefde, Brussels, Belgium*

Apps can turn a smartphone or a tablet into an alternative for a dedicated assistive device. By using the right app, a visual impaired user can turn his iPhone, iPad or Android device into a daisy player, a colour detector, an OCR-scanner, a pocket CCTV-system, a braille note taker, ... But how to choose the right app for each of these purposes?

To be usable for visual impaired people, apps needs to be developed in line with the accessibility guidelines. The general principles behind these accessibility guidelines are equal to those of the web accessibility guidelines. And it is up to the app developer to meet these

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guidelines.

But how can you, as a professional therapist, judge about the accessibility of an app? In this workshop we will demonstrate how to check if the app is accessible enough for your visual impaired client? We will show you how to determine the level of accessibility of an app. Furthermore, will learn you a few tricks how to find work-arounds for certain accessibility problems. We will show you how to create labels for badly labelled elements. And we will even show you how easy it is to translate apps that doesn't exist in your language.

### Room 5: **Social haptic communication**

- **Social haptic communication**

*Veerle Vanthuyne<sup>1</sup>, Vanhoutte Peter<sup>1</sup>; Amerlynck Koen<sup>2</sup>, Weemaels Jos<sup>1</sup>, Verstraete Elke<sup>2</sup>  
1 Border members Anna Timmerman Belgium 2 Assistants of deaf-blind persons*

Communication is more than language by producing words and making gestures. What about emotions, behavior, atmosphere.... these items are important too. They can colour what has been said but are extreme difficult to get accessible for those who are visually impaired: blind or deaf blind. We offer you the solution: use the Social Haptics! Haptisch are signs you produce on the body. Haptic describe what is happening how people are reacting, what you can see all around. For example, people are laughing, the other is getting bored or angry, the audience is really interested, how is your food getting dressed up in your plate, .... Using the Social Haptics is giving the deaf blind person the occasion to get informed well about the situation and to get more involved.

Another benefit is by using the Social Haptics you can give short messages. For example: it's high time!, what do you want to drink?, someone wants to shake hands, they're taking pictures, we have to queue, ...In this workshop we will focus on describing the environment and facial expressions by haptic.

### Room 6: **Up to an inclusive life after special education. An interactive session based on Testimony**

- **Up to an inclusive life after special education. An interactive session based on Testimony**

*Monique Van den Abbeel<sup>1</sup>, Eva De Stecker<sup>2</sup>  
1 Independent, 2 Service centre Spermalie, vzw De Kade, Belgium*

One should have the possibility to give direction to his/her life. Having a visual impairment should not influence the dreams to take up different community roles. Knowledge and experiences gathered at school age will guide one adult life. On the way you learn to handle with both support as prejudices.

Beside efforts to create independent living it was not easy to activate meaningful daily activities such as a job, inspiring leisure or hobbies. Later on motherhood was consciously chosen. She will share her experience of organizing daily life with a baby, a toddler or child and an adolescent including contact with services, authorities, neighbors, parents at the school gate, etc. Maybe having a paid job isn't a realistic objective. Finding a meaningful alternative surely is! Writing down her story was only the beginning. This book opens the dialogue; it supports the professional in a very practical way; it shows the way for both sighted and visual impaired to be partners in an inclusive society. Being empowered, the future will be promising.

## Tuesday 4/07/2017

### 9:00 – 10:00 Keynote lecture by

**Prof. dr. Bea Maes, Dean of the Faculty of Psychology and Educational Sciences University of Leuven, Belgium**



Bea Maes (°1964, Bruges) finished her Master of Educational Sciences, option special education, at the University of Leuven in 1987. She became junior researcher of the Fund for Scientific Research and obtained her PhD in Educational Sciences in 1994, with a dissertation on 'The psychosocial functioning of adult men with fragile-X syndrome'. Now, she is a senior academic staff member of the Parenting and Special Education Research Unit of the Faculty of Psychology and Educational Sciences of the University of Leuven, Belgium. She is specialised in the field of education and support of persons with a disability.

### Quality of life and quality of support for children with a disability and their families

Abstract is missing

### 10:30 – 12:30 Parallel Session II: Oral Presentations

#### Room 1: School Ages

- **Stories: a different way to interact with blind or visually impaired children and adults with additional disabilities**

*Jeske D'haene, Annelies Meulemans, Wieteke Luppens  
Centrum Ganspoel, Speech Therapy, Belgium*

Stories over time have always been an important part of our lives. They play a role from early infancy to adulthood. This is no different for people with a visual (multiple) impairment. They can have different functions: enjoying, the stimulation of interaction and the transfer of knowledge. Through recognition and anticipation early communicative functions are developed. Also language development, social skills, and sensory development are stimulated and self-expression can be developed. Reading aloud creates opportunities to improve the quality of interaction between children and their educators. For persons with a visual (multiple) impairment, stories are often inadequate and depending on the target group several adjustments are required. At Centrum Ganspoel, a Belgian centre for visually impaired and blind children and adults with additional disabilities, we make use of different types of stories, such as interactive theatre, multi-sensory stories, newspaper articles, film and theatre. The detailed stories are available to all employees who wish to use them. While telling stories, we stimulate all senses by using objects, smells, flavours, ... related to the story. These stimuli make the story more concrete, the words more tangible. While telling a story various communication systems are used, such as personal movements, gestures ...

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and various technological aids may be employed. For years, these types of stories have been part of our work with persons with a visual (multiple) impairment. In this contribution, we want to present different methods of storytelling

- **Communication or Confusion? One Local Authority's Approach to Simplifying Communication for Pupils with Complex Needs using Objects of Reference.**

*Elizabeth McCann*

*Moray House School of Education, Univeresity of Edinburgh, Edinburgh, United Kingdom*

This paper will explore the standardisation of Objects of Reference (OoR) used by children and young people with complex needs across home, schools and respite services in a Local Authority in Central Scotland. Children could be presented with as many as 45 different OoR, both at home and in school. OoR were not always unique to the activity, nor were they presented consistently. Instead of simplifying communication, the OoR caused confusion and became a barrier to learning. As a result a multi-disciplinary Language and Communication Group was set up to determine a unified and consistent approach to the use of OoR. The group comprised of a Speech Therapist, Primary Teachers from Special Schools and a Qualified Teacher of Visual Impairment. In order for consistency to be developed all children would need to have access to the same OoR with consistent presentation. Due to the task in hand, the composition of the group was widened to include other stakeholders. The research practitioner group developed a core group of five OoR that could be used across settings. Crucially we reduced the OoR from 45 differing symbols to only a strategic and developmentally important 5. Consequently, in order to develop understanding, the OoR are unique to the activity to which it has been attributed and not used for anything else. This is critical to simplifying communication and to promote understanding. OoR and information on how to use them appropriately were disseminated across the authority in April 2016. Initial feedback from all sectors is positive.

- **Moving towards self-confidence**

*Ria Waele*

*Royal Vision, Goes, The Netherlands*

In a changing world it is important to grow up to be a strong and independent individual. For visually impaired children it is harder to learn social behaviour by copying others. As a result, social interactions don't come as naturally. How can we, professionals, teachers and parents, contribute to the socio-emotional development of the blind or visually impaired children? How can we help them to become happy, firm and socially independent individuals? In Royal Dutch Visio, we stimulate socio-emotional development and social skills by physical exercises and practical assignments, in groups of visually impaired children of different ages ( 6-9 year, 10-12 year). We use a program called "moving towards self-confidence". The method is based on 7 themes: body-awareness, self-knowledge, emotions, communication, teamwork, resilience and autonomy. In "moving towards self-confidence" we combine existing methods such as "Sherborne", "Rock and Water" training and experiential learning. The presentation consists of video images of the training to illustrate its different themes and principles.

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### Room 2: School Ages

- **De Pit : an inclusion project for adolescents with visual impairment and multiple disabilities in the city of Tervuren.**

*Veerle Coenraet, Susy Gijbels, Sonia Meys  
Centrum Ganspoel vzw, Huldenberg, Belgium*

In 2014 Centrum Ganspoel vzw opened a residence for young people, aged 12 to 21 years, in the city of Tervuren. The ten adolescents who live in this house all have multiple handicaps and are visually impaired or blind. The youngsters, as well as their parents, have the dream of becoming as independent as possible and make the best choices for their future. We will discuss how a multidisciplinary team, consisting of teachers, therapists, and care-takers, manages to support these young people and how they develop a tutorial that shows how improving abilities such as mobility, self-reliance, and social skills can be achieved. The aim of this program is to have the pupils learn as much as possible, taking into account their capabilities, so that they can make realistic choices for the future including living, work, and leisure time. Furthermore, we will demonstrate the importance of living in a city to enhance the learning process. The campus of centrum Ganspoel is situated in a beautiful agricultural landscape, far away from the habited world. Although a very lovely place to stay, there is also a lack of opportunities to practice life in the real world. Therefore, the centrum opened a house in the nearby city of Tervuren. Living in a city gives the young people the possibility to take public transportation, use commercial and public services, etc. For example, these young people go shopping in the neighborhood in order to prepare their own meals. They learn to place orders and to pay in cash or by credit card. Moreover, they are able to take part in the social life of Tervuren; some youngsters go to dance class, others go to a judo club, the swimming pool or play music. A team of volunteers makes it possible for every child to participate according to their own interest. Last but not least, we will show how this project cooperated with the municipality and how the city of Tervuren has made efforts to adapt itself to the needs of people with visual impairment.

- **Concept development of Blind Children - A General Introduction**

*Ans Withagen and Anneke Blok  
Royal Dutch Visio, centre for partially sighted and blind persons, Huizen, The Netherlands*

On the basis of what our senses tell us we build 'concepts'. These help us understand the world. Conceptualization, as this process is called, does not take place in quite the same way in blind children as in sighted children. This is because their perception of many objects and other things in the extrapersonal and peripersonal space (or far and near space) is different. During the day our senses provide us with all kinds of information. This is how we make sense of the world around us. Each sense has its role to play and together they form 'a bridge to the world'. A huge difference between the sense of touch and vision is the fact, that 'touch' is a so-called near sense and 'sight' is a far sense. For many of us, sight is the dominant sense and therefore the most important. It allows us to take in a situation at a glance and that is why we rely a lot on this sense. Blind children lack this 'overview' provided by the sense of sight and have to compensate by using other senses. During the presentation extra information will be given about the sense of touch; the different functions and characteristics of touch will be described. Furthermore, the influences will be discussed that affect the concept development of children with a severe visual impairment. Advices will be given to guide these children during the concept development.

Objectives:

The far and near senses will be clarified

The difference between cutaneous and proprioceptive touch will be explained

Several characteristics of 'touch' will be presented

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Different factors which influence the concept development will be described  
'Good practice' to stimulate the concept development will be discussed  
The book "In touch, helping your blind child discover the world" will be introduced

- **Group meetings (1-4 days) for Children or Youngsters with Visual Impairment as a Method to achieve Individual Goals.**

*Emma Vandamme*

*Mobile Support Service Accent- Center of Expertise Spermalie/ de Kade, Brugge, Belgium*

During group meetings we work on individual goals of the children/youngsters by different activities:

- Workshops (creative workshops, music workshops, shopping, cooking)
- Initiations of (challenging) leisure time activities (sports, music, adventure)
- Training mobility skills (orientation in a new building, orientation in a new city, taking the bus, taking the train)
- Training daily skills (hygiene, clothing, eating, cooking)
- Practice social skills (how to contact some one)
- Practice skills in real life situations: order a drink, shopping, taking the bus

We use experts as role models during the meetings or workshops. The older participants can also be a role model for the younger participants. We take positive role models to help children/youngsters feel confident. The interaction between children/youngsters and role models also enables an honest exchange of views and self-reflection. The group meetings are an excellent opportunity to make contact with other partially sighted and blind peers to build up social networks. The children and youngsters experience support of peers and are for once not an exception to the other peers. They all have a visual impairment. The group meetings give the space and opportunity to experiment with social behaviour. Children/youngsters get a safe environment to practice social skills, make friends, start an intimate relationship. The intensive support put these goals into reach. Each tutor/mentor supports two or three children/youngsters during the meetings. In this way it is possible to give enough individual feedback and individual support.

- **Analyzing social interactions in a regular class: a pilot study with secondary students with a visual impairment**

*Mathieu Gaborit<sup>1,2</sup>, Nathalie Lewi-Dumont<sup>2</sup>, Kenza Berrada<sup>3</sup>, Minna Puustinen<sup>2</sup>*

*1 Paris Nanterre University, Nanterre, France, 2 EA 7287 Grhapes – INS HEA, Suresnes, France, 3 Paris Descartes University, Boulogne-Billancourt, France*

Our previous questionnaire studies on help sought by secondary students with a visual impairment (VI) during mathematics lessons (Puustinen, Arneton, & Lewi-Dumont, submitted) and help provided to secondary students with VI by mathematics teachers (e.g., Lewi-Dumont, Arneton, & Puustinen, 2016) yielded contradictory results: teachers, but not students, considered that students with VI should ask for more help in class (cf. Puustinen, Arneton, Lewi-Dumont, & Gaborit 2015). These results might partly reflect the limits of the use of questionnaires in research on in-classroom interactions (e.g., questionable reliability of anonymous student self-reports). Therefore, in the present pilot study, our aim was to test a new methodological paradigm for the analysis of technology-mediated and face-to-face interactions taking place between secondary students with VI and their teachers, teacher assistants, and peers in an inclusive setting. In the absence of existing research on this topic in students with VI, the new methodological paradigm was inspired by previous research on students with other disabilities (Koegel, Matos-Freden, Lang, & Koegel, 2012; Loyd, 2015; Robertson, Chamberlain, & Kasari, 2003; Segall & Campbell, 2012). Three blind 9th-graders included in a regular mathematics classroom in Paris were filmed during two 1-

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hour mathematics courses. The students, their parents, mathematics teacher, and teacher assistant were also interviewed. Data analysis is still ongoing. The results of this pilot study should allow us to better frame future research on this topic.

### Room 3: School Ages

- **Screening Characteristics of Autism Spectrum Disorders (ASD) in Children with Cerebral Visual Impairment (CVI).**

*Griet Pattyn<sup>1</sup> and Greet Vissenaekens<sup>2</sup>*

*<sup>1</sup>Mobile Support Service Accent – Center of Expertise Spermalie/ de Kade, Brugge, Belgium; <sup>2</sup>Mobile Support Service Ganspoel, Ganspoel, Huldenberg, Belgium*

Children with CVI often show behaviour that can also be attributed to ASD. This may be confusing for professionals as well as parents and the children themselves. This was the reason for the development of a screening list. The purpose is to provide a more objective base for referring children with CVI for further diagnostic procedures concerning ASD and therefore the child can be given the appropriate support. The screening list is meant for children with a developmental age of 5 till 12 years old. It assesses how a child usually behaves. We selected the characteristics of ASD that we don't expect in children with CVI. It is the degree in which a certain behaviour is present that enables the differentiation. The screening list is preferably completed by parents, assisted by a qualified professional. This screening list is produced in coöperation of the Mobile Support Services and Centers of Expertise Spermalie and Ganspoel, Rehabilitation Center De Markgrave Antwerpen, Centers of Expertise Autism from Leuven and Brussel, Centers for the diagnosis of developmental disorders from Leuven, Gent and Brussel and Centre for Expertise Network. So far we have done a limited research, using the screening list in our support of children with CVI. The actual version of the list is available for further exploration of its validity.

- **Using modern statistical mapping tools to identify social participation and wellbeing need in children with visual impairment.**

*John Ravenscroft<sup>1</sup>, Andrew Blakie<sup>2</sup> and James Thom<sup>3</sup>*

*<sup>1</sup>University of Edinburgh, School of Education, Moray House, Edinburgh, Scotland; <sup>2</sup>University of St Andrews, Global Health Implementation, School of Medicine, St Andrews, Scotland; <sup>3</sup>NHS Scotland, National Network Management Service NHS National Services, Scotland*

This paper will focus on the recent developments in economics, informatics, climatology and UK National Health Services in analysing big data. Using visual analytical tools that have been developed we can start to understand and identify the needs and profile of childhood visual impairment either within small defined geographical areas (communities), local education authorities (schools), health boards (hospital and general practitioner (GP) services), or even analysis that is countrywide. This paper will present visual maps, which are easier for multi-agency teams, working with children with visual impairment, to understand and identify need than by examining databases of information. By mapping data, we can expose hidden patterns and relationships that exist that previously may not have been identified. Using the Visual Impairment Scotland (VIS) data set, a 12-year incident notification study, as core data, these up to date software techniques will show that data can be defined as geographic boundary or location and used to overlay the population of children with visual impairment thus resulting in identify the profile, prevalence and incidence of children with visual impairment. By mapping the VIS data the paper will enable policymakers, educationalists, and practitioners to visualise the data in order to target resources that are becoming more and more limited. It is now time for those working with children with visual impairment to acquaint themselves with up to date statistical techniques and to use these techniques to provide an equitable service for all.

- **Investigating risk perception and disaster management through perspectives of children with and without visual disability**

*Magda Nikolaraizi, Sofia Chamonikolaou, Vassilios Argyropoulos and Charikleia Kanari  
University of Thessaly, department of Special Education, Volos, Greece*

Children and in particular children with disabilities are often overlooked in disaster education programs and rarely considered as important actors in risk reduction strategies. This paper describes a series of consultative workshops, which took place in a mainstream educational setting within which a child with visual impairment was included. The aim of these workshops was twofold. Firstly, to explore children's perceptions regarding risks and disasters and empower the children's role in relation to risk and disaster management and secondly, to enable practitioners and policy makers to gain understanding and insight into children's priorities and perceptions of risk in urban contexts and their capacities, taking into account different cultures and abilities. The workshops were designed to correspond to the children's ages and needs and also to be accessible for the student with visual impairment. The persons involved in this collaborative scheme were 25 first graders - out of whom one was a student with visual impairment -, two researchers, academic staff, general and special education teachers. In addition, the workshops included, cooperative learning debates, jigsaw, role playing, poster making, storytelling, drawings, and tactile materials. The discussion of the present study puts strong emphasis on the significant role of differentiated content that may play in class and underlines the necessity of providing children with and without disabilities the opportunity to become active agents in effective disaster management and disaster risk reduction.

- **The role of leisure time and sport activities for people with visual impairment in developing social participation**

*Andrea Hathazi  
Babes-Bolyai University, Special Education Department, Cluj-Napoca, Romania*

The present paper will focus on the importance and characteristics of leisure time activities and sport activities for people with visual impairment and their role in the development of independence and social networking as a result of increased social participation, development of communication skills, but also increased self-esteem and identity. Participating in such positive activities is associated with positive outcomes for people's health, development and communication, offering experiences of enjoyment and fun, overcoming barriers and reaching performance. Leisure time activities and sport activities offer the possibility to develop social and emotional skills, increase the number of social partners and activities, opportunities for developing values and norms, but also self-determination and leadership and even development of innate abilities and talent in sports, but there is also information and results of studies about the difficulties and negative experiences encountered by people with visual impairment and the implications of lack of participation and general and specific barriers. The paper will present the results of a study which refers to people with visual impairment engaging in these types of activities, factors that favor and encourage participation, factors that can make participation difficult, characteristics of physical and social environment, but also the perceived benefits and the services that are considered being supportive.

## ABSTRACTS

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### Room 4: School Ages

- **"Art does not have to be Visual"**

*Anneli Embe*

*National Agency for Special Needs Education and Schools, Resourcecenter Vision, Stockholm*

In this session you will learn about the possibilities and difficulties in including art education. The findings from this qualitative study reveals how creative tasks in art can support the memory and the acquisition of knowledge among students with visual impairment. Anneli will also discuss the consequences for students when art teacher lacks further training. Objectives: The aim of this study was to shed light on what may be motivating in art studies for young people with visual impairment or blindness with Braille as reading medium, in inclusive education, grades 7– 9. Questions for the study were: What are the students' experiences of art studies with focus on their motivation? What are the art teachers' ideas on lesson planning with focus on creating motivation in inclusive art education? Material and methods: qualitative interview study with four children and four teachers

Result: The study result showed that what basically motivated the students was creating together with sighted classmates, no matter how difficult it was. In art the differences become especially clear. Demands on planning and adapting are high and it is difficult to fully customize. Tactile experiences constituted strong memories that stayed with the student for many years. Conclusion: To make art meaningful for a student with visual impairment or blindness lessons for the entire class need to be planned with focus on open tasks with different choices. Knowledge without demands on the visual sense is crucial and so is the creation with three-dimensional and tactile techniques.

- **Making mathematics accessible. A study of how paraeducators work with adaptations**

*Ulrika Vanhoenacker*

*The National Agency for Special Needs Education and Schools, Resource Centre Vision, Stockholm, Sweden*

In Sweden all braille reading students are included in elementary school and they attend regular classes with a class teacher and a paraeducator. The paraeducator often has some kind of teacher education. The aim of the study was to highlight how paraeducators work with adaptations in mathematics for 7-9 year old braille reading students in primary school. It was a qualitative study and data were collected through video observations and stimulated recall interviews. Three paraeducators were observed and interviewed. All three paraeducators showed tactile material or whispered to the student at the same time as the class teacher explained mathematics for all students, including the student with blindness. The paraeducators' explanations to this phenomenon were poorly planned lessons, the lack of time and the fact that the student wanted to know what the classmates were working with. Some of these simultaneous activities could easily have been avoided if the class teacher had verbalized her teaching, named the objects, rather than using expressions like "this" or "that". All three respondents stated good planning as a prerequisite for being able to adapt the teaching, both in terms of planning the actual lesson and planning the production of tactile material. When teaching is optimally designed the student's adaptations are well prepared. Adaptations then lead to inclusion and independence for the student and the student can increase their learning and develop in their work in class.

## ABSTRACTS

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- **SensusAccess - Universal access to alternate media**

*Lars Ballieu Christensen<sup>2</sup>, Tanja Stevns<sup>1</sup>*

*<sup>1</sup> Synscenter Refsnæs, Danish National center for Blind and Partially Sighted Children and Youth, Kalundborg, Denmark; <sup>2</sup> Sensus ApS, Hillerød, Denmark*

Catering for the needs of blind and partially sighted included in mainstream education can be challenging and timely provision of educational material in appropriate formats such as Braille, large-print or audio is a frequently reported problem, especially when it comes to hand-outs, assignments and similar day-to-day material. SensusAccess is an adaptation of the award-winning RoboBraille service specifically targeting academic institutions. The adaptation was spearheaded by a collaborative project between the Danish inventors of the RoboBraille service and Stanford University (2011 – 2014). The project added new user interfaces and customisation possibilities, conversion options, reporting capabilities, best-practices guidelines and more. Today, SensusAccess is used as an official accommodation at a large number of universities and colleges in the US, UK and elsewhere to support the alternate media needs of the blind, partially sighted and others with print impairments. The presentation will present the rationale behind the adaptation and adapted service itself. Furthermore, it will discuss how SensusAccess is being used at academic institutions to promote self-sufficiency amongst students with special needs, support inclusion in mainstream education and protect the privacy of those with print impairments.

- **Maxmising Spatial Potential: Spatial thinking modification and universal design for students with VI**

*Mary Styliidi<sup>1</sup>, Philippos Katsoulis<sup>1</sup>, Maria Zeza<sup>2</sup>*

*<sup>1</sup> Special Elementary School for the Blind in Athens, Greece; <sup>2</sup> Special Elementary School for Deaf- Blind in Athens, Greece*

Complex spatial thinking phenomena are often described with visual imagery. Research has shown that visual representations are not only motivating but are also critical in the communication of

spatial thinking concepts for people with VI. As D. Warren (1994) suggests students with little or no vision face several difficulties in learning from the lack of these representations. The principle of "Universal Design Learning" (UDL) suggests that holistic planning and design can yield spatial thinking education that is equally suitable to all students. This points us to educational modifications which may benefit large numbers of people, including students with visual impairment (VI). Tactile maps are an example of a spatial thinking education aid which may be useful for blind and sighted students alike. This paper explores the mental representations of spatial thinking concepts that students with VI build forming the role of passive and active spatial thinking processes. Also, it discusses the understanding that learning involves specific challenge in the area to be learned, and so for it to occur, we have to eliminate unnecessary barriers without eliminating the necessary challenges. Thus, the UDL principles go deeper and they focus on access to all aspects of spatial thinking learning. Finally, this paper outlines the types of future research that are needed to more fully meet the challenge of providing high quality, accessible science instruction to students with VI. These types will become a part as implemented in VISTE project that aims to empower spatial thinking of primary and secondary school students with VI.

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### Room 5: Young Adults

- **Professional Training as a Part of Curriculum and its Influence on Employment**

*Jana Loudová*

*Gymnázium pro zrakově postižené a Střední odborná škola pro zrakově postižené, Prague, Czech Republic*

Visual impairment affects people in many different ways. One of the problem is also unemployment. Currently there are no exact statistic data about rate of unemployed people with visual impairment in the Czech Republic. But some older sources say, that unemployment of people with visual impairment in productive age reaches to 70%, and more than 90% of people who are blind are unemployed. High rate of unemployed people with visual impairment can be caused by different aspects. Problems with getting a job can be influenced by obstacles on the side of the employers, but also on the side of the people with visual impairment. The main aim of secondary school is to prepare students for future employment. According to the Czech Education Act secondary education develops knowledge, capabilities, skills, attitudes and values important for personal development of students. Secondary education creates preconditions for worthwhile personal and civic life, lifelong education, acquiring of occupational habits and prepares students for particular professions. Gymnázium pro zrakově postižené a Střední odborná škola pro zrakově postižené, simply translated as the High School for Visually Impaired, Prague, Czech Republic, is the secondary school, which is attended by students with visual impairment and with other disabilities like autism, general learning difficulties, reduced mobility, etc. Our school offers education in four fields of study – Grammar School, Business Academy, Commercial skill school and Social Work. Teachers provide not only the education, but they also try to prepare students for independent and self-sufficient life. This article will be further focused mainly on field of study Social Work. The study of Social Work lasts for four years and is concluded by school leaving exam (equivalent to A-level exam). Graduates can be employed as workers in ambulatory or residential organizations which provide different kind of services for people in need. They have knowledge and skills needed for provision of care and personal assistance, to support client's self-sufficiency and activation. They are able to provide social consulting, they have an overview about social legislation and knowledge about management of social services. As a part of curriculum is included also professional training. Professional training is partly organized at school, where the special classroom for this subject was formed and equipped, and partly in form of excursions in organizations where students get the main information about provided social services. Twice during their study students spend two weeks continuously as „employees“ of organizations of their choice. The main aim of professional training is to develop professional skills and habits. Within the framework of this subject students learn about social services of organizations for different kind of clients and get an overview about the possibilities of labour market in the field of social work. The goal of this speech is to apprise participants of ICEVI Conference with experiences with preparation and organization professional training at school, which problems are needed to deal with and how professional training can influence employment of graduates in labour market. Research of successful integration of school graduates in labour market will be made by questionnaire method and in the form of interviews with employers.

- **Expedition ToP: Experiences of adolescents with visual impairments, their parents and professionals in promoting success in job participation.**

*Judith Wijnen<sup>1</sup>, Sabina Kef<sup>2</sup>, Bella van Erp<sup>2</sup>*

*<sup>1</sup> Royal Dutch Visio, Amsterdam, the Netherlands; <sup>2</sup> Vrije Universiteit Amsterdam, Faculty of Behavioural and Movement Sciences, Clinical Child and Family Studies and the EMGO+ Institute for Health and Care Research, Amsterdam, the Netherlands*

Introduction: People with visual impairments (VI) are still facing problems in job participation. How could we focus more on success factors in (special) education? What are the experiences of adolescents themselves, parents and professionals? Material and methods: In an innovative project of Visio and Vrije Universiteit Amsterdam, several data collections with multiple groups of participants will shed light on which factors are related to success in employment. Participants are: adolescents with VI (15-22 years), their parents, professionals of Visio, and successful employees with VI. Data are collected using questionnaires, interviews (Appreciative Inquiry), assignments and focus groups. Results: Preliminary results showed that professionals attributed the problems of employment for a large part (77%) on the VI. Professionals did believe in change, as was found on their score on the growth mindset index, but some have more fixed mindsets. Accordingly, also the adolescents themselves scored rather positive on the growth mindset index. Important success factors for employment in adolescents were attitude, self-efficacy and social skills. Important success factors for employment to be highlighted in education were insights in the possibilities (and not the impairments) of the adolescents and Visio's connections with companies in general. Interviews with successful employees with VI underscored the relevance of high self-efficacy and positive beliefs. Results of the focus groups with parents are to be expected in spring 2017. Conclusions: If we know more on the success factors, we could shape the parenting and education more towards them. Using an integrative multi factorial approach, as in this project, seems the way to go.

- **Status of the specialist additional curriculum in the UK and outcomes for learners**

*Sue Keil<sup>1</sup>, Rory Cobb<sup>2</sup>, Rachel Hewett<sup>3</sup> and Graeme Douglas<sup>4</sup>*

*<sup>1</sup> Royal National Institute of Blind People (RNIB), Evidence and Service Impact, Birmingham, UK; <sup>2</sup> Royal National Institute of Blind People (RNIB), Evidence and Service Impact, Birmingham, UK; <sup>3</sup> University of Birmingham, VICTAR, School of Education, Birmingham, UK, <sup>4</sup> University of Birmingham, VICTAR, School of Education, Birmingham, UK*

This presentation focuses on how to achieve a balance between the academic curriculum which schools are measured on and the specialist skills which children with vision impairment need to learn to become independent adults. These skills include gaining employment, living independently, having friends and supportive relationships, and participating in the local community. In the UK there is a tension at national policy level between the outcome measures which schools are judged on, and the special educational needs (SEN) framework. The main focus of schools' performance is how well their pupils attain academically. For pupils with SEN there is a drive to both raise academic attainment, and to equip children and young people with the skills to enable them to achieve successful long term outcomes in adult life. How can specialist teachers ensure that the additional curriculum is not overlooked in schools, when so much value is placed on academic attainment? We will discuss a new framework which expands the 5 categories in the UK additional curriculum to create 8 'learner outcome' categories. We will use this framework to present findings from recent research into the transitions of young people with VI in which participants reflected on the specialist support they had received at school and how well it had prepared them for the transition to adulthood. We will conclude that the additional curriculum is important in enabling learners with VI to achieve both academic outcomes and to make a successful transition into independent adulthood. The new framework provides a way for schools and specialist teaching services to demonstrate their role in enabling pupils with VI to make progress towards the 8 learner outcome categories.

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- **On the threshold of adulthood**

*Annica Winberg*

*National Agency for Special Needs Education and Schools, Stockholm, Sweden*

Young people with visual impairment may face severely limited opportunities for employment, independent living and social and community participation. This is a well known situation in many countries. The aim of this study is to describe the special challenges that young people with visual impairment face and hopefully give some answers to the question if they get the right support in the process of transition. The paper is based on the results of a research project conducted in Sweden in 2014 – 2015. Qualitative interviews were conducted with eight young adults with visual impairment (22 – 28 years of age), who are either attending university or equivalent educational settings or are on the edge of entering the job market. The main research question was if schooling within the general education system have prepared them for the challenges of adulthood. Has the transition process been successful? The results show that students with visual impairment face a more challenging situation than sighted students. Throughout all their years in the inclusive school system the visually impaired students have experienced a constant time problem in almost all learning situations. This has caused a lot of stress and a feeling of not performing as well as sighted peers. When proceeding to higher education the visually impaired students were facing a far more complex situation than other students. Beyond carrying out their academic studies, they were expected to handle a lot of practical problems concerning such as making sure to get adapted material in time. The study also shows that many were quite unexperienced concerning the demands that comes with having a job, since none of them had had a paid job before graduating from post-secondary education. Their own self-esteem and other peoples' expectations on their possibilities to succeed in higher education or on the job market also had an impact on the actual outcome.

### Room 6: **Adults**

- **Let me keep it safe!**

*Bert Veneberg<sup>1</sup>, Leo Koopman<sup>1</sup>, Mark Noorlander<sup>1</sup>, Hans van Stam<sup>1</sup>, Antoon van der Kamp<sup>1</sup>, Serge Willemsteijn<sup>2</sup>, Vincent Zijffers<sup>1</sup>, Angelique Koelewijn<sup>1</sup>*

*<sup>1</sup> Bartimeus, centre of expertise complex behavior, Doorn, Netherlands; <sup>2</sup> Transparant Training Barendrecht, the Netherlands*

For the last 5 years Bartiméus (an health care organisation that provides education, services and care to those that are at least visually impaired) is training all of her employees to keep them safe in their work with visually & mentally impaired cliënts. Most of these cliënts sometimes react in an aggressive manner to situations they cannot understand or in which they cannot cope with stress. They take their frustrations and pain out on their caregivers. Bartimeus wants to prevent these situations and the harm that comes from these escalations or incidents- for that reason a training is given to the caregivers each year. Last year cliënts started asking; they asked what they could do to 'de-escalate' and be safe in harmful, aggressive situations. 'Is it wise to say something to a person that gets mad or should I get out of the room?' 'How do I recognise signs of agitation or stress?' 'Where do I sit best at the table, what is the safest place?' 'What do I say or do best in stressful situations?' These are all cliënts that live and work at Bartiméus. They are adults and they don't naturally learn these things. We teach their caregivers and help them what to do, but no one teaches them... But listening to the cliënts we learned that they wanted to know how to keep themselves safe! They wanted to be able to make safe and helping choices in stressful situations. They wanted to know the answers to the questions they asked us. They no longer wanted to rely (only) on their caregivers and they were so right! They wanted to take their

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own responsibility and they wanted personal development by following this course. So we sat with them and asked them exactly what they already knew and what they wanted to learn and together with them we developed a training/course. We worked together with them as we trained groups of clients to de-escalate and stay safe! And now we would like to present and share... but we would like to do this together: with our clients!

- **My dog, my freedom: representations of the visually impaired and professionals**

*Angélique Mouton, Stéphanie Demartin and Sarah Velghe*

*Œuvre Fédérale Les Amis des Aveugles et Malvoyants, Vrienden der Blinden, Belgium*

The guide dog is a medium for improving the quality of life of people with visual impairments. Providing autonomy and freedom, he contributes greatly to improving their inclusion in society since he has a beneficial effect on self-confidence and the inclination to go to the other. He demonstrates a dual role since he greatly facilitates travel in terms of autonomy, security and fluidity and on the other hand he is an undeniable catalyst for social connections, enabling their users to (re)create, to enrich their connections with society. However, it appears that a small percentage of the Belgian visually impaired population resorts to the guide dog. The analysis of the applications reveals that the motivation is sometimes dominated by the aspects related to the travels, sometimes with the social aspects. Studies showing that erroneous representations were part of low demand, we wanted to analyze the reasons for this low attractiveness of the target population in order to identify the representations of this population and potential prescribers, to identify the factors inducing demand and to adapt the offer to the demand of the users. On the basis of a specific questionnaire, we interviewed visually impaired persons with and without guide dogs in order to know the motivations of their request - or their miss of request - as well as their representation of guide dogs (technical assistance, pet, working dog?). We then determined whether more of these mental representations are related to travels or to the psycho-affective sphere. Ultimately, the objective is to highlight the obstacles or, on the contrary, aspects facilitating the process leading to the granting of a guide dog. We also surveyed visually impaired professionals and general practitioners about their representation of the guide dog in order to determine the extent to which they can act as a lever to induce and / or support their patients when in questioning about the demand to get a guide dog.

- **Employability of VI persons: jobs tailored to the disability or 'the sky is the limit'?**

*Bart Verdickt*

*Brailleliga vzw, GOB - Expertisecentrum Visus & Werk, Brussels, Belgium*

In our presentation we would like to emphasize on how to maximize the employment opportunities for visually impaired persons. We will show the importance of focussing on a person's competences and making the match between jobseekers with VI and the regular labour market, rather than trying to employ VI persons as much as possible in jobs tailored to their disability. Using examples of best practices of the Brailleliga's 'GOB' (vocational training and employment service) we will discuss the methodology that we use. We will talk about job hunting, job matching, job carving and job coaching, but also about the importance of assessment and differential diagnostics and about the essence of a holistic approach of the person with VI (the link between their situation and employability). We will explain what we call the 'cross-over principle' we use during our guidance and counseling. We will discuss the importance of awareness raising. "Mainstream wherever possible, specialized when needed", true, but only if mainstream actors know the specialised offer and know when to appeal upon them. We will point out that there is no contradiction between the wish to apply the UN Convention on Persons with Disabilities on the one hand, and specialized support for a certain period in order to reach inclusion on the other. In conclusion

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we would like to suggest that such an approach, which emphasizes on specialized support in making the match between skills and work in the open labor, promotes the inclusion of people with visual disabilities in the labor market and maximizes their employment opportunities.

### Room 7: Adults

- **The benefits of accessible theatre programmes on students with moderate and severe visual impairment**

*Judit Gombas<sup>1</sup>, Erika Anita Baráth<sup>2</sup>, Beáta Prónay<sup>1</sup>, János Zalán<sup>3</sup> and Cecília Tóth<sup>3</sup>*

*<sup>1</sup> ELTE University of Sciences, Department of Special Needs Education, Budapest, Hungary; <sup>2</sup> Primary and Residential School, Unified Methodological Centre of Special Pedagogy for the Partially Sighted, Budapest, Hungary; <sup>3</sup> Hungarian Theatre of Pest, Budapest, Hungary*

Introduction: The Hungarian Theatre of Pest (Budapest) is the first theatre in the country which provides patrons with visual impairments regular access to audiodescribed plays. Within a long-term and sustainable cooperation, for two school years the theatre has been providing students of the Primary and Residential School, Unified Methodological Centre of Special Pedagogy for the Partially Sighted (Budapest) highly discounted entry fees and, after each theatre visit, a theatre pedagogical event tailored to the students' special needs. Method: A 16-item questionnaire of both multiple choice and open questions was put together in order to examine students' general theatre experiences, their impressions on audiodescription and the follow-up programmes and the difficulties they may have encountered in the theatre. Objectives: This research investigated the benefits of accessible theatre visits on students with moderate and severe visual impairment. Results: The questionnaire was filled in by 41, 9-15-year-old students with severe (N=7) or moderate (N=31) visual impairment (4 students said they had no visual impairment). All students needed to borrow smart phones from the theatre to listen to the audiodescription, they did not have their own devices. 7 respondents said they had never been to theatre before, 10 students said they had been there before with the school, not with their families, and only 3 out of the 41 students said they go to theatre with their family at least once a year. Even students with a moderate visual impairment stated audiodescription helped them understand and follow the plot more easily. 40 respondents would like to go to theatre again, which shows how important it is to widen the range of accessible performances all over the country.

- **The DogSim lost his legs**

*Peter Lasaroms<sup>1</sup>, Hans Damm<sup>2</sup> and Anita Lasaroms<sup>1</sup>*

*<sup>1</sup> P.C. Lasaroms Dogs for Care, Middelaar, Netherlands; <sup>2</sup> Fondation Visio, Bouchemaine, France*

Learning to walk in traffic is not something you can do in a snap, if you have a visual impairment. Using a cane or a guide dog helps. But you'll have to learn: how to use the cane or to trust and understand the dog, and of course you have to learn depend on the information you gain with other senses and trust your own decisions. Most people get some kind of professional help in orientation and mobility (O&M). All over the world people learn to walk with a guidedog by walking with the DogSim first. It's also used in training O&M for other skills you need: using your senses and learn to trust them and dare to make decisions. With the DogSim NV you are able to do so, because you are literally and figuratively in front. There is no-one standing in front or next to you, taking away information about the

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surroundings: wind, sun, light, noise. There is also no-one next to you telling you what to do. But...There is somebody in your back, taking care of your safety and helping you if needed. You can feel it, because you both are connected holding one end of the DogSim NV. We improved the original DogSim and made it lighter, smaller, ergonomic, cheaper. If you are interested in how it works, visit our presentation and find out.

- **Time awareness in individuals with MDVI**

*Emma Heitbrink<sup>1</sup>, Joost Hartveldt<sup>2</sup>, Dick Lunenburg<sup>1</sup> and Maaïke Meerlo<sup>1</sup>*

*<sup>1</sup>Delft University of Technology, Faculty of Industrial Design Engineering, The Netherlands;*

*<sup>2</sup>Bartiméus, department Bartiméus Fablab, The Netherlands*

Research shows that people with combined visual and cognitive impairments often experience difficulties with their perception of time. Their day-night rhythm is often disturbed and they spend prolonged periods waiting for assistance to initiate and complete their daily activities. This can result in significant uncertainty during the course of the day. At Bartimeus, we have explored the use of technology to improve time perception in clients with MDVI. During this presentation, we will introduce you to three products that we have developed to address the problem of time perception: 1) The Tacto Timer, currently in its development phase, is a tactile timer that consists of a vibrating pillow and an App that allows control of the duration of vibrations. The cushion vibrates during a determined waiting period and the client must wait until the vibrations stop. The aim of this device is to convert the period of waiting into something concrete but also to distract the client from the fact that they are waiting. 2) The Speaking Plan-board is an accessible audio interface with easily activated spoken recordings of the structure of the day or week. 3) The TCM Clock is a clock that has been made accessible with audio-messages and tactile pointers. It provides the user with insight into their day structure and informs them via audio-messages of when the next activity will begin. We will demonstrate each assistive device and share our experiences implementing these tools with our clients.

Tuesday 4/07/2017

14:00 – 15:30 Workshop Session II

**Room 1: Stimulating social contact between blind children and their sighted peers through playing together at regular kindergarten (age 5-6 year)**

- **Stimulating social contact between blind children and their sighted peers through playing together at regular kindergarten (age 5-6year)**

*Tiene Vanreybrouck*

*Early Intervention, Centrum Ganspoel, Huldenberg Belgium*

Based on personal experience and literature (A. Ingsholt M. Dik et al ...) we observe that blind children and their sighted peers play in a different way. Blind children play longer functional play: they need more time to explore the world of objects and activities. Their sighted peers develop fantasy play more early on because of their visual imitation of the surrounding world. How can they learn to play together?

Stimulating this playing together is teamwork: parents and early intervention, teacher and special teacher each have their own role. We are working out a project bringing together all parties:

- In meetings we choose and align a limited number of activities.
- Together, the home teacher, parents and their blind child are doing activities of daily living (eg, shopping and kitchen activities.).
- The school teacher and special teacher work in the classroom to develop social skills in both the blind and the sighted children, and guide fantasy play "shopping" and "cooking".
- This project will be illustrated with video recordings of the chosen activities
- Experiences and recordings from this project will be used in the future with other families and schools with a blind child, for information days for kindergarten teachers who have a blind toddler in their class, to transfer knowledge to young colleagues, ...

**Room 2: Sex and relationship education. "How to use the Sex Kit"**

- **Sex and Relationship Education. "How to use the Sex Kit".**

*Emma Vandamme, Marlies Praet,*

*Mobile Support Service Accent- Center of Expertise Spermalie/ de Kade, Brugge, Belgium*

We teach young children to communicate, to ride a bike, to swim,... In the same way, as in these domains of personal development, we have to support children to become healthy, happy, balanced and responsible individuals who can enjoy their sexuality. Children learn how to make friends and how to make up after a fight. They learn what is part of their privacy, which sexual behaviour is accepted or when their behaviour is exceeding boundaries. This is a real challenge. Relationships, sexuality and safe sexual behaviour is fun most of the time, but also very complex, especially for children and youngsters with a visual impairment. Between 2009 and 2015 we developed a sex kit with clear visual and tactile materials. The sex kit contains: guidelines and vision texts as background for parents and professionals; reading books and visually distinct picture books on different themes of sex and relationships; tactile materials such as contraceptives, underwear, life-like baby dolls, life-like penis- and vagina models, anatomic models of a man and a woman, breast models, game-materials.

In addition to the sex-kit we also made a guidance on the use of the sex kit. It doesn't offer

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an elaborate method, but a survey of possible materials and procedures. The materials can be used during lessons, workshops or individual home support. During this workshop we'd like to show you how to use some of the materials from the sex kit for sex and relationship education.

### Room 3: **Creating universal accessible text documents**

- **Creating universal accessible text documents**

*Pieter Brabant, Vincent Cassert*

*Spermalie, vzw De Kade, school intervention team Spermalie, Bruges, Belgium*

Making information accessible to everyone, it's one of the main principles of Universal Design for Learning. Many public services as well as education in general need to tackle this problem in order to create platforms without restrictions to users. This workshop addresses to those who create or lay-out textual content and who want to do this in an efficient and accessible manner so that students with a visual impairment can participate and contribute. The domain text editing within a school setting (as well as in the business world) is often reverted to classical programs like MS Word and/or OpenOffice. In a practical way, we offer a demonstration of some simple rules within the use of these programs to create accessible text documents. The use of styles, descriptions of images, avoidance of empty white space,... all contribute to a clearly recognizable and accessible document without having to compromise on design. Then we also demonstrate how such a document can be read by different users, with specific attention to the visually impaired.

### Room 4: **Self concept and future concept and visual impairment**

- **Selfconcept - Future Concept and Role of visual Impairment**

*An Ooms, Tine Vanhauwaert*

*vzw De Kade -, Begeleidingscentrum Spermalie – Het Anker, Belgium*

Future Concept is linked with the Self Concept. Self Concept is builded through competitions and impairments, in a process of development and struggling with yourself. Adolescents with a visual impairment have to deal with a smaller variety of possibilities. At what point do they realise this and how do they cope with this? What about their dreams, hopes and real life? In a few cases we delineate possible processes and we wander how we can go along with them in this matter. Autor Tine Vanhauwaert talks about her own lifeexperiences as a person with visuel impairment. An Ooms presents cases and possibilities to coach the process.

### Room 5: **Can smartphones and tablets replace dedicated assistive devices?**

- **Can smartphones and tablets replace dedicated assistive devices?**

*Jeroen Baldewijns, Steven Breughe, Eline De Ganck, Elin Galle*

*Vlaams Digitaal Oogpunt, Blindenzorg Licht en Liefde, Brussels, Belgium*

Apps can turn a smartphone or a tablet into an alternative for a dedicated assistive device. An app can be an alternative for a braille note taker, for a pocket CCTV loupe, for a talking clock, for a colour detector, ...But is an app the best solution for every one? What are the pro's and con's of an app, compared to the dedicated assistive device that it wants to

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replace? Has the app the same functionality as the classic assistive device? What are strengths and the dangers of combining many functions into one single device? And what about power consumption of this one device? In this workshop we will demonstrate the app versus the classic assistive device in several functional domains. For each domain, we will discuss both the functional and practical differences, the aimed target groups and the advantages & disadvantages.

### Room 6: **Building mutual framework of quality educational services offering for individuals with MDVI and Deafblind in Europe/Eurasia region**

- **Building mutual framework of quality educational services offering for individuals with MDVI and Deafblind in Europe/Eurasia region**

*Martina Celizic<sup>1</sup>, Monika Tóth<sup>2</sup>, Emanuela Stoilova<sup>3</sup>, Andrea Hathazi<sup>4</sup>*

*<sup>1</sup>Day care center „Mali dom-Zagreb“, Zagreb, Croatia; <sup>2</sup>Budapest School for the Blind, Budapest, Hungary; <sup>3</sup>Department of Special Education, Sofia University, Sofia, Bulgaria;*

*<sup>4</sup>Department of Special Education, Babes-Bolyai University in Cluj-Napoca, Romania*

Children with visual impairments and multiple disabilities and deafblindness represents low incidence population that share specific education needs that should be respected in the context of educational programs. There is also a lack of systematic national guidelines on the types of educational offerings for this population.

This workshop aims at bringing together the expertise in providing educational services for children with visual impairment and multiple disabilities and deafblind in four of Perkins International partners in Europe/Euroasia region. The challenges that each participating country face in delivering educational services for this population will be explored.

The workshop will be structured following the Quality indicators in the education of children with Profound Intellectual and Multiple Disabilities (Amaral, Celizic,2015). The Quality Indicators are developed through analysis of educational activities in program for children with visual impairments and multiple disabilities „Mali dom-Zagreb“. The Quality Indicators (Amaral, Celizic,2015) focus on process factors which refer to activities provided by organizations and quality of planning. The factors considered are: children needs, engagement and participation in activities and managing activities. The aim of described Quality Indicators is to guide the administrators and professionals in ensuring quality of education of MDVI and deafblind students through participation in meaningful activities.

The examples of good practice from each of participating organizations will be shown in the form of presentation and followed by discussion about future directions.

### Room 7: **Geocaching with and for visually impaired children and young adults**

- **Geocaching with and for visually impaired children and young adults**

*Marten van Doorn*

*Bartimeus Education Centre, Zeist, The Netherlands*

Orientation is knowing where you are. And to reach that place you need to navigate. That makes navigation one of the most important aspects of our training. Geocaching is a navigation game where you search with a GPS for treasures hidden by other players. A game based on orientation and mobility and therefore suitable for people with visual impairments. We developed a curriculum of 6 lessons and provided lessons for a period of 10 months. In this workshop we start with the consistency of orientation and navigation because you need to know how the effects on each other before starting with a GPS. Thus we will describe the

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contents of the 6 lessons of which the curriculum Geocaching is. After the period of 10 months we evaluate the curriculum and came to the following conclusions. Geocaching can be an activity for people with visual impairments for the following reasons. You can do it independent up to the last 3 to 5 meters, it o&m develops and brings you in unfamiliar (interesting) places. You often have to form a team and through this learn to cooperate. It is good way to integrate into a common sport what a fun leisure is. Geocaching can be used as a rehabilitation tool, courses for pupils in mainstream and special education. And particularly suitable as a leisure time activity. Of course there are reasons why Geocaching is not an activity for people with a visual impairment but they do not outweigh the benefits. You still needs help for the last 3 to 5 meters of a sighted person (fysical or by phone) to find the cache. You are very dependent on how the cache and any hint is described. Blind persons must have a very good orientation, motivation and solving skills to do this all by themselves. Nevertheless, the majority of my (blind) pupils are having fun in this sport which give them a good insight into the use of GPS and navigation in general. This presentation will be followed by a practical experience.

## Wednesday 5/07/2017

9:00 – 10:00 **Keynote lecture by**

**Mrs. Kristen Layton, Director of strategy, Innovation and Learning Perkins International**



**Kristen Layton, MS. Ed.** is the Director of Strategy, Innovation and Learning at Perkins International at Perkins School for the Blind in Watertown, MA, USA. Prior to her current position she launched the Middle East and North Africa program at Perkins while living in Amman, Jordan. Kristen has served for many years as an international consultant on issues relating to the education of children with disabilities, including those who are visually impaired and deaf-blind, and inclusive education. Her experiences include holding the position of Coordinator for Professional Learning at the Helen Keller National Center. As former Associate Director at the Education Development Center, Inc. Kristen was part of the team that launched the International Inclusive Schools Network. She contributed to the growth of the graduate program in deaf-blindness at Boston College by developing and introducing new course curricula, recruiting students and enhancing the internship program. As a curriculum development specialist, she was again recruited by Boston College to develop curricula for the Carnegie

Foundation: Teachers for a New Era. Other relevant experiences include positions at the University of Maryland and the National Technical Assistance Consortium for Children and Young Adults who are Deaf-blind. Kristen holds a BS degree in Elementary Education from the State University of New York at Plattsburg and a MS.Ed. in Special Education from Hunter College of the City University of New York.

### Quality of Life for All:

#### **A Big Idea for Including Children with Visual Impairment and Multiple Disabilities in School, Family and Community**

A quality education is the basis for a quality life. Nations throughout the world have committed to providing a quality education for all children – including those with disabilities – by the year 2030 as outlined under Goal 4 of the Sustainable Development Goals. In September of 2016, the UN Committee on the Rights of Persons with Disabilities clearly defined inclusive education as a fundamental human right of all persons, including persons with disabilities. Yet, children and young adults with vision impairment and multiple disabilities in many places are cut off from the education system entirely. Instead they are at home or in the care of orphanages and children’s homes, with little to no access to educational opportunities. How can we work together toward ensuring that learning reaches all children? What are the elements for ensuring a quality education toward a quality life? Let us explore innovative and practical ideas to address our greatest challenge yet: Quality of Life for ALL.

This keynote address could potentially span an hour addressing the importance of policy, funding, collaboration and the dire need for the training of teachers, medical professionals and families. We could all spend an entire day talking about the importance of providing a quality education for children with multiple disabilities, the challenges in accomplishing this and the practical strategies in doing so. The reality is that we know how to do these things. What we need to work on is how to bring these ideas and strategies to scale in places in the world where education for children with multiple disabilities is not a priority.

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All of these things are important, yet I would like to focus this address on some other “Big Ideas” that oftentimes only “small parts” of what we do or think about, but have the potential to be critical factors in addressing quality life for children and adults with vision impairment and multiple disabilities.

### 10:30 – 12:30 Parallel Session III: Oral Presentations

#### Room 1: Early Childhood

- **Setback in development in young children with blindness? A systematic review and implications for practice**

*Ans van Eijden<sup>1</sup>, Ellen van den Broek<sup>1</sup>, Ans Withagen<sup>1</sup>, Mathijs Vervloed<sup>2</sup>*

*<sup>1</sup>Royal Dutch Visio, centre of expertise for blind and partially sighted children, Huizen, The Netherlands; <sup>2</sup>Radboud University, Behavioural Science Institute, Nijmegen, The Netherlands*

Introduction: A presumed developmental setback between 16 and 27 months of age in children with congenital blindness or visual impairment with no additional disabilities was studied. Methods: The scientific literature on setback in development in particular and longitudinal studies on children with blindness and visual impairment in general was studied. Results: Especially for children with blindness the period around the second birthday seems a vulnerable period. Between 11 to 44% of the children with congenital blindness or visual impairment show a developmental setback. Children with a visual impairment involving the nervous system of the brain showed the most risk for this developmental setback. Methodological and maturational issues make it hard to decide whether there is a real developmental setback between the ages of 16 and 27 months or whether there is regression or stasis in development. Alternative explanations for a developmental setback are described. One of them being the substantial overlap between behaviours often found in children with blindness and visual impairment and symptoms of Autism Spectrum Disorder. Suggestions for future studies are given and implications for clinical practice. Conclusion: to be able to capture the phenomenon of developmental setback appropriately and to pinpoint moderating and mediating factors, children with congenital blindness need to be monitored prospectively in a longitudinal research design.

- **The young blind Child: developmental Assessment**

*Griet Pattyn and Katrien Perneel*

*Mobile Support Service Accent – Center of Expertise Spermalie/ de Kade, Bruges, Belgium*

Every child develops at a different rate although you can generally predict when certain skills will appear. Vision loss can fundamentally change the way a baby learns and therefore it is harder to predict the course of development. The modern idea of development is that it is the result of continuous interactions between the child and the environment. In accordance with this view developmental information should be gathered combining different assessment methods, such as observation, parent interview, and standardized developmental assessment. Standardized developmental assessment instruments play an important role in early intervention. However, when you want to test blind babies and toddlers, problems arise finding those standardized assessment. This workshop is an interactive discussion about the assessment of the development for blind children, age 0-5 years.

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- **The Pearl – a preschool encouraging independence and participation**

*Agneta Westman and Lena Lindbom*

*National Agency for Special Needs Education and Schools, Resource Centre Vision, Stockholm, Sweden*

In Sweden there are no specialized preschools for children with blindness, these children attend ordinary preschools. Support to the preschools is provided by National Agency for Special Needs Education and Schools, Resource Centre Vision. In this presentation you will meet, two National advisors for preschool children with visual impairment and blindness at Resource Centre Vision in Stockholm, both with long experience in education of preschool staff who has a child with blindness in their class. We will present a film that we have produced to use in the further training of preschool staff. The aim of the film is to inspire the staff and give them knowledge and competence to support the children in their development, and increase their independence and participation in the preschool activities. Topics in the film are:

- The importance of creating an environment that encourages independence and participation for children with blindness.
- The importance to play through all senses.
- The importance of how the environment may stimulate “curious fingers”. Children with blindness need to practice their tactual discrimination ability in many ways. A great variety of toys and other material with different textures, are means to stimulate the children to develop “curious fingers”.
- The importance of meeting Braille in many different contexts in the environment for the future Braille reader. Preschool staff are often insecure about braille. In the film there are several examples of Braille in the learning environment. We want to inspire the staff to bring Braille into everyday activities in the preschool together with the children.

### Room 2: **School Age**

- **Tough Talks: talking to children about sight loss**

*Sarah Holton<sup>1</sup>, Robert Caswell<sup>2</sup>, Rachel Pilling<sup>3</sup> and Rachel Hewett<sup>4</sup>*

*<sup>1</sup>Royal National Institute of Blind People, UK; <sup>2</sup>York & Selby Child and Adolescent Mental Health Service (CAMHS), Tees, Esk and Wear Valleys NHS Foundation Trust, UK; <sup>3</sup>Department of Paediatric Ophthalmology, Bradford NHS Trust, Bradford, UK; <sup>4</sup>VICTAR, School of Education, University of Birmingham, Birmingham, UK*

This presentation gives an overview of guidance for parents and practitioners to enable them to have discussions with children and young people about the child/young person's vision impairment (VI). It will give an outline of the main guidance themes: 1) strategies for both parents and professionals, and 2) additional professional considerations regarding topics that can be sensitive to children and their families. The guidance was developed by RNIB in response to requests from parents about how to talk to children about their VI, particularly if it is a condition where the child/young person's sight will deteriorate over time. The materials were informed by evidence from research in which young people with VI were asked about their experiences of understanding their sight condition. Many participants felt they had not had adequate or appropriate discussions with family members or professionals in order to understand their sight condition. The 'Tough Talks' guidance has been written from three perspectives - family support, paediatric psychology and clinical ophthalmology. The guidance suggests the people, both within and outside a family, that can support the process of helping a child understand their sight condition and how it affects them. It also describes the approaches that can be used, gives advice on what to say and what not to say,

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and shares what young people say themselves would have been most helpful when they needed to talk about their vision impairment and its implications for them in the future. The desired outcome is that parents feel enabled to use their own expertise and unique relationship in order to support their child in coming to terms with their condition.

- **“See?”, psycho-education for visually impaired school aged children**

*Yvonne Kruithof  
Bartiméus Onderwijs, Zeist, Netherlands*

Theory and counseling practice suggests that visually impaired children are more likely to have problems related to social interaction and in developing a positive self-image than their sighted peers. There is a need for an educational ‘tool’ to aid these children to have a better understanding of their visual impairment, to enhance self-image and problem solving skills related to their impairment. In answer to this need we developed the internet based app “See?”. It is an intervention for visually impaired children 6 to 7 years old. The purpose of the app is to help visually impaired children understand their visual disability, the impact of this impairment on their thoughts and actions and to teach these children behavioral alternatives in everyday situations. The aim is to help these children develop a positive and realistic self-image which has a positive impact on their social and emotional development, social interaction and well-being. The app consists of 10 digital lessons. Each lesson is based on a situation visually impaired children experience in main stream education. The children are shown a short animation of a situation in a classroom, on the playground or during PE. The children assess these situations by answering questions and give alternative solutions to the presented problems. Every lesson ends with an animation of a solution and the effect this has on the situation and emotional wellbeing of the participants. Impact study: There are enthusiastic reactions to this psycho education app both from the children and parents/teachers. Although the intervention is based on literature, research and years of experience working with visually impaired children we like to scientifically prove the positive effect. In January 2017 we will start with an impact study. During the development of the “See?” app we received a lot of requests from colleagues and parents to make a program for psycho education specifically for children with Cerebral Visual Impairment (CVI). We made a questionnaire and send these to parents, teachers and colleagues. We also interviewed children with CVI. Based on these outcomes we start developing a new psycho education program for children with CVI in April 2017.

- **EDUCARE, Behavioural problems in connection to visual impairments**

*Myriam van Hees  
Royal Dutch Visio, Knowledge, Expertise and Innovation, Amersfoort, The Netherlands*

EDUCARE is an European staff exchange project (2015-2017) where partner organisations have found a common interest in the theme of behavioural problems in connection with visual impairment. As we experience the number of young people with VI (Visual Impairment) and MDVI (Multi Disabled Visually Impaired) who develop behaviour problems has been growing and the professionals working in the field of visual impairment are facing challenging situations for which they have not been adequately educated and prepared to cope with. Lack of competences generates new problems and causes stressful situations on both sides. Therefore, the teachers and other professionals recognise there is a great need to increase the quality of professional knowledge and understanding of the target group. Professionals addressed through this project deal with complex and severe individual needs. The results of the project are on three different levels. The knowledge, the professionals have learned about specific (international) models, methods, practices and techniques, which resulted in earlier recognition and better understanding. Skills and competences of

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the professionals are improved, so we can expect more appropriate interventions. The staff is prepared/trained to handle problems of pupils and students with VI/MDVI and behavioural problems, which will decrease stress level, give confidence and improve the learning experience of VI/MDVI persons. Long-term benefits of improved staff competences also show in better prevention and abilities to avoid severe behavioural problems, in addition, the target group has better opportunities to set out on the road to full integration in society.

- **Quality at the end of life of visual impaired children: impact on and role of a physician**

*Katrien Keppens*

*Spermalie, vzw De Kade, medical department, Bruges, Belgium*

Spermalie is an expertise centre for children and adults with visual and/or auditory impairment. A lot of these children suffer from comorbidities, including chronic diseases. From time to time our multidisciplinary team is confronted with children dying in the first or second decade of life due to medical complications such as chronic renal failure, untreatable spinal cord stenosis or general deterioration in children with a metabolic disorder. As physicians we have been trained to make a diagnosis and to start therapy. We are far less confident in dealing with the end of life, because medical training in this field is very poor. However, at this point, the support needed from the physician towards the family and especially towards the team is even more important. A physician should be aware that his/her medical knowledge is far less important than the emotional support needed. On the other hand knowledge of the disease and explaining the condition in non-medical language, can make this difficult period better tolerable for the child, the family and the entire team. The interactions and debriefings in the team are extremely important and helpful for all the members, including the physician. Though these moments are physically and emotionally very demanding and exhausting, they are also rewarding. It gives one a positive feeling, because your support in the last period of life is helpful for others. One can achieve good overall care. It increases respect for co-workers. It increases respect for life in general. I am convinced these end-of-life experiences help you to be a better, more compassionate physician, to be a better person.

### Room 3: **Adults**

- **Hearing aids for people with deafblindness and intellectual disabilities: a multidisciplinary approach**

*Ingrid Korenstra*

*Bartiméus Expertise Center on Deafblindness, Bartiméus, The Netherlands*

For 20 years the Bartiméus 'hearing rehabilitation team' works with a step by step program to adjust hearing aids to people with deafblindness and intellectual disabilities. This program, based on the principles of J.Kingma en S.Damen (2005), is still successful. People with intellectual disabilities often have a loss of hearing. However, this is not always recognized. The problem become even worse if they are visual impaired as well. Compensation hearing loss by using hearing aids is of great importance to improve communication and breaking the isolation. Fitting of the aids demands a special approach by a multidisciplinary hearing team. In this workshop we describe a practical step-by-step model of adjusting hearing aids for people with deafblindness and intellectual disabilities.

In our team the audiologist, the speech therapist, the audiology assistant, the audio technician, the physician and the psychologist work closely together. This step-by-step program leads us to the decision of adjusting hearing aids. In order to achieve this decision

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we do hearing tests, check on inclusion criteria, formulate treatment goals, agree on the habituation process and guarantee de check-ups and evaluations. Breaking the isolation by using hearing aids is proved to be a feasible intervention; also for people with multiple disabilities. To underline this statement and to make the theory even more clear, video clips will be shown. The video clips describes the step-by-step process, illustrated by clients from Bartiméus with highly varying intellectual disabilities.

Questions:

- Is hearing rehabilitation possible for deafblind people with (severe) intellectual disabilities?
  - Which factors will influence the implementation?
  - How will improvement of hearing affect daily life?
- 
- **Stimulating communication in individuals with deafblindness using an intersubjective developmental perspective**

*Saskia Damen*

*Special Needs Education, University of Groningen, Groningen, The Netherlands*

This study aimed to develop a social partner-oriented intervention based on Trevarthen's three layers of intersubjective development. Subsequently, this intervention was tested on interpersonal communication of people with congenital deafblindness (CDB) and their social partners. This presentation will address the feasibility of measuring communication at the three layers of intersubjective development in individuals with CDB: a) other awareness, b) mutual awareness, and c) awareness of a verbal and narrative self and other. It will also reveal how changes in social partners' behaviors affected the communicative behaviors of the participants with CDB. Parents, teachers and caregivers received the High Quality Communication (HQC) intervention: a training involving education and video-feedback sessions. Multiple-case experiments were carried out involving 3 children, 2 adolescents and 6 adults with CDB and 34 social partners. Each pair was observed repeatedly during baseline and intervention phases. The coding system was based on Trevarthen's theory of intersubjective development. Sequential analysis revealed how the communication of the social partner affected the communicative behaviors of the individuals with CDB. It appeared feasible to measure the three layers of intersubjective development in individuals with CDB. The enhancing effect of the HQC intervention on interpersonal communication could be detected and was replicable across participants. The display of higher complex intersubjective behaviors by the social partners, such as referential communication, meaning negotiation and declarative communication, elicited such behaviors in participants with CDB. The study showed that the theory of intersubjective development is a valuable perspective for evaluating communication of individuals with CDB. The study also revealed the importance of investing in communication support for parents, teachers and professional caregivers of individuals with CDB.

- **Using my feet- A description of the use of guide lines by an adult women with congenital deafblindness inside her house**

*Marjo van Welbergen, Nathalie Lentink, Peter Peek and Mijkje Worm*

*Bartiméus, Expertise Centre Deafblindness, The Netherlands*

An adult woman who has complete deafblindness and an intellectual disability, we call her Nelly, moved to one of the houses for persons with congenital deafblindness of Bartiméus. Her access to information is fully allocated to the proximity senses touch and smell. However, she dislikes touching. She also dislikes to be touched by others on their initiative. At home she orients with her (bare) feet. Since the floor surface in the house feels everywhere the same, this is a difficult task, and she needs guidance in her orientation.

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Caregivers had questions about how to guide Nelly without having conflicts about touching and being touched. It was hypothesised that guide lines on the floor could support Nelly in her orientation. A guide line could give her a continuous tactile support in her way finding. In the workshop I lead the listener through this project. I discuss our process and the experiences within the project, illustrated by video footage. The guide lines were applied between the living room and the bedroom. At the same time, caregivers received instruction on mobility training. Not only the route was taught, also guidance instruction was provided. Results are that Nelly had more opportunities to express how and when she wanted to be guided. The guidance in orientation became more positive and the amount of conflicts between Nelly and her caregivers decreased. Furthermore, other residents of this house started using the guidelines in their own orientation. Therefore, this case can be an example for future users of in-home guidelines.

### Room 4: School Age

- **Individualised augmentative communication for individuals with autism, intellectual disability and visual impairment: Interpretation and implementation of the ComFor-V results**

*Petra Hagen-Geerts<sup>2</sup>, Jarymke Maljaars<sup>1</sup>, Kristien Hermans<sup>1</sup>, Roger Verpoorten<sup>2</sup>, Ina van Berckelaer-Onnes<sup>3</sup> and Ilse Noens<sup>1</sup>*

*<sup>1</sup> Leuven Autism Research (LAuRes), Katholieke Universiteit Leuven, Belgium; <sup>2</sup> Koninklijke Kentalis, the Netherlands; <sup>3</sup> Universiteit Leiden, the Netherlands*

Background: Augmentative communication is very important for individuals with autism spectrum disorder and intellectual disability. The ComFor (Forerunners in Communication) is an instrument for the indication of augmentative communication, primarily developed for nonverbal or minimally verbal individuals with autism spectrum disorder and intellectual disability. Recently, the ComFor-V - an adaptation for individuals with co-occurring visual impairment - was developed. Method: The ComFor and the ComFor-V were tested on a sample of 623 and 84 individuals from the Netherlands and Flanders respectively. Implementation of augmentative communication based on ComFor-V results was investigated via 10 case studies. Results: The data generally support the reliability and validity of the ComFor and ComFor-V. Implementation of individualised augmentative communication significantly improved level of independence of the individuals. Conclusion/Perspectives: Both the ComFor and the ComFor-V appear to be promising tools to explore underlying competence for augmentative communication in individuals with autism spectrum disorder and intellectual disability (and low vision or blindness). This presentation will show you an example of the indication and implementation of augmentative communication for an individual with a visual impairment, intellectual disability and autism.

- **A Model of National Education System for Multiply Disabled, Visually Impaired children**

*Zeynep Nazan Baykan<sup>1,2</sup>,*

*<sup>1</sup> Ayan Vision Center, İstanbul, Turkey; <sup>2</sup> Ankara/İstanbul, Turkey*

In Turkey the quality of services for the re/-habilitation and education of disabled children have made great advancements with in last years. These are mostly provided by legal regulations stating how educational services must be applied for each disability group. Even though inclusion and integration of disabled students into mainstream classes is a legal right, since support services, special educators for multiply disabled, visually impaired children are few in number only few classes are being opened for these children and most of them are not reached. SERÇEV (Association for education and re/-habilitation of cerebral palsied

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children is a non-governmental civil organization, established by the parents of MDVi children in Turkey in 2002. Since then they have made several projects for education, re/habilitation, rights, social -physical and professional well being of MDVi children and reached unreached families. I am working as a consultant for the academic committee of this association. The project named as 'A Model of National Educational System for Multiply disabled, visually Impaired Children' targeted MDVi school children, their well being, having high standart living conditions, social inclusion, high quality education within their capacity, arranging environmental conditions with respect to their unique needs. The purpose of the project is to increase the awareness of multiple disability within the community, develop new policies for inclusion/integration of these children, to increase the education level of MDVi children up to typical growing age appropriate children, reach the unreached, stress the importance of multiple disciplinary assessment. The method of the project consisted analysis of the needs, arrangement of an opening workshop, target group study with 10 families, picture and composition competition within MDVi school children under the topic 'The school I dream of', multidisciplinary Assessment of MDVi students, preparation of printed materials, CDs for teachers, parents and school directors. preparation of community spots, closing workshop, distribution of these materials, evaluating the end results, preparation of the report. The project is completed within 9 months. The printed material and CDs are published in the web pages of SERÇEV. The project has been a good study from different perspectives. From my point of view I stressed the importance of functional vision assessment and cerebral/cortical vision impairment which is not much known even by ophthalmologists in Turkey. Teachers now know that visual acuity and visual field is not the only function of vision. Inclusion and integration which is much written on paper but not well applied in reality is now can be understood that can only be possible by trans and interdisciplinary assessment of children by multiple disciplines. Individual education programs can be better prepared by taking into account different assessments of different disciplines not only that of special teacher. As a conclusion this project governed by SERÇEV has been a good proposal for the education system of MDVi children in Turkey. It has caused an awareness with in the special teachers, class teachers families and school directors of how MDVi students education must be stressing the importance of biological, physiological and social properties and uniqueness of these children.

- **Online e-Learning tool for mdvi learners**

*Dick Lunenburg*

*Bartiméus, department Bartiméus Fablab, The Netherlands*

There is a lack of digital e-Learning resources for students with combined visual and cognitive impairments. An attractive online e-Learning platform has been developed specially for Dutch-speaking students with learning difficulties, which enables them to independently complete lesson material on a computer or tablet. This platform is maintained by a non-profit organisation and is used in a large number of Dutch-speaking schools. Unfortunately, this platform is not accessible for students who have combined visual and cognitive impairments due to the visual nature of the interface. However, we are adapting the existing platform to allow access for our visually impaired students. The existing exercise modules are being modified and new accessible material is being added to ensure that the platform is also accessible for students who cannot utilize visual information. The result is a user-friendly, comprehensive, web-based learning resource whereby teachers can develop and implement content with ease and their pupils can learn independently through engaging in interactive activities while their progress is monitored. The Audio-adapted e-Learning Platform will serve as a central point for creating and sharing audio-materials within special education. We will demonstrate how the program works and how it can be used in an educational setting. The e-Learning Platform can also be translated for implementation by other international special educational institutions.

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### Room 5: School Age

- **Behavioural Change: Inclusion or Exclusion? A Dilemma for Educators**

*Elaine Gilmour*

*Blind and Low Vision Education Network New Zealand, Auckland, New Zealand*

Stereotypic behaviour is at times considered a disordered behaviour because it is often regarded as inappropriate, resulting in social exclusion together with the concerns it may present, as a barrier to learning. This behaviour is characterised as repetitive sequences of fixed behaviours that are cyclical and rhythmic in nature. The behaviour is deemed to be self-stimulatory, exhibiting a lack of recognisable adaptive significance. It is considered to be pursued in an invariant manner and is also thought to demonstrate an invariant environmental influence. Stereotypic behaviour, in some of its many forms, is thought to occur with great frequency in children who are blind. This presentation, informed by doctoral research, discusses the aetiological theories of stereotypic behaviour with explanations offered for the high frequency of certain mannerisms in children who are blind. The possible impact of such behaviours in the domains detailed in Schalock's 'Quality of Life Framework' are highlighted as these are seen as significant for this group of children. This is especially so when discussing personal development, interpersonal relationships, social inclusion and human rights for an individual. As the drive for learners who are blind to be educated within inclusive settings, information about behavioural intervention to change what is considered inappropriate stereotypic behaviour to that which is considered culturally, socially acceptable, conflicts with the rights of the individual. This presents an interesting dilemma for vision educators.

- **Approaching the person through the disability**

*Albert Ruf*

*Educative Resources Centre, ONCE, Barcelona, Spain*

The education of Multihandicapped Visually Impaired (MHVI) children is not only a scientific or technique subject but also an issue of philosophy, anthropology and ethics. According to Andreas Frohlich statement, the encounter between a MHVI boy and his carer happens in the most naked essence of humanity. This is why educators have to hear and understand mainly which are children's desires as well as their necessities. The use of the scientific knowledge will be deeply dependent on the relationship between two human beings. Therefore, dignity, empathy and respect will come along with any project involving a vulnerable person. Oliver Sacks is another mentor for knowing the identity of the person beyond his disease or disability. The biography and the personal context will condition the unique treatment for him, being this education or rehabilitation. Very often decisions on himself must be taken for others, with concern for their responsibility. Being so close to the MHVI children and their families' difficulties, educators suffer also psychic pain. Supervision becomes essential for professionals that take care of vulnerable people. First of all to assume the responsibility of doing one's best and to avoid the burn-out. And on the other hand, to honestly become aware of mistreatment wherever it comes from. Nevertheless we might accept that life is uncertain and we must try to act with prudence and respect.

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- **Biblus - digital library for alternate formats**

*Lars Ballieu Christensen<sup>1</sup> and Tanja Stevns<sup>2</sup>*

*<sup>1</sup> Sensus ApS, Inclusion Technology, Hillerød Denmark; <sup>2</sup> Synscenter Refsnæs. Danish National Centre for Blind and Partially Sighted Children and Youth, Kalundborg, Denmark*

Ensuring that blind and partially sighted children included in mainstream education have access to educational material in alternate formats alongside their sighted peers is a challenge. While it can be frustrating for visually impaired students not to have timely access to textbooks and other material, it also limits how well teachers and educators can establish an inclusive learning environment. Biblus is a digital library for educational material in alternate formats. Developed as a companion to the award-winning RoboBraille service to augment the availability of alternate media in mainstream education, the library contains digital copies of all the educational material used throughout the Danish primary and lower secondary educational system. Operated by Synscenter Refsnæs, the national competence centre for blind and partially sighted children and youth, in accordance with the Danish copyright legislation, the library allows teachers, relatives and the children themselves to retrieve digital copies of material as well as teaching instructions whenever the material is needed. Biblus even supports on-the-fly conversion of material through an integration with RoboBraille. The presentation will present the Biblus digital library and how it is being used throughout Denmark to support blind and severely partially sighted learners in mainstream education. It will furthermore discuss how adapted versions of the library is being used as collaborative platforms amongst special schools for the visually impaired and as in-house repositories at academic institutions to ensure access to material whilst protecting the copyrights.

- **Improving access to external examinations for students with vision impairment in the United Kingdom**

*Rory Cobb and Sue Keil*

*Royal National Institute of Blind People, United Kingdom*

This presentation outlines the findings of recent research carried out by RNIB into the quality of exam papers in modified large print and braille provided for students with vision impairment in England and Wales. The research was carried out to address concerns expressed by many qualified teachers of children and young people with vision impairment (QTVI) about weaknesses in this crucial area of their students' education. The project was supported by the four main exam boards and involved two stages: a survey of education professionals working with students taking modified exam papers, and a quality assessment of around 100 modified exam papers provided by the different exam boards. The presentation will highlight the key findings of the research. Particular concerns were the poor availability of practice papers, difficulties with ordering modified papers, and the perceived low quality of some diagrams, maps and graphs. The quality assessment of papers supported many of these concerns. Problems were found in the modification, layout and production of many papers, indicating difficulties at all stages of the process. The presentation will conclude by considering the recommendations arising from the research and the potential relevance of these to exam provision in other countries. These include proposals to ensure better quality assurance in the way that exam papers are modified and produced in large print and braille. The presentation will also discuss new resources to help QTVIs and other education professionals prepare their blind and partially sighted students more effectively for the experience of taking external exams.

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### Room 6: Young Adults

- **Direct braille printing of standard documents made easy**

*Niels van Weele and Björn Löfstedt*  
*Index Braille, Gammelstad, Sweden*

Literacy is one of the most important things for successful development. This applies to individuals and societies, for the sighted and the blind. Index Braille aims to simplify braille printing so that printed braille documents are available for the blind, whenever and wherever they need them. This will lead to a higher literacy rate among the blind and a higher number of successful blind persons. Index-direct-Braille (idB) is a built-in application in Index V4 and V5 embossers that makes it possible to convert standard files such as .docx, .doc, .pdf, .txt, .brf to Grade 1 (literary) or Grade 2 (contracted) braille, and then print them directly from any PC or a USB memory stick. The braille printout is formatted to the braille page size and layout settings set in the braille embosser automatically, so it is not required to purchase a separate braille editor. IdB is free of charge and the text-to-braille files may be adapted to many languages through the Liblouis open source project. Demonstration of direct braille printing (idB) from: PC, USB memory stick, and mobile phone. Nowadays it is simple to print from mobile phones. Simply connect your mobile phone to the same Wi-Fi network as the embosser. Type the embosser's IP address on the browser, and then open the standard files for printing. IdB is attractive due to its simplicity. Once the V5 Index braille embosser is set up with paper size, characters per line, lines per page, margins, duplexing, page numbering, text-to-braille translation language, you are then ready to start embossing braille. idB offers a modern multi-platform concept that enables you to emboss your files from Windows, Mac or Linux. In fact, idB is the 'first' commercial braille printing application to support printing from a Mac or Linux computer.

- **A teaching framework for the teaching of a second/foreign language to learners with visual impairment**

*Aikaterini Athanasiadou,*  
*Centre of Education and Rehabilitation for the Blind, Thessaloniki, Greece*

The present paper presents the fundamental difficulties met by teachers and visually impaired learners, while learning a second/foreign language. Individuals with visual impairment could particularly benefit from mastering a second language, as it would increase their professional opportunities, as well as enhance their social integration. The paper will examine issues pertaining to the conditions determining the L2 acquisition by BVI learners. BVI learners use non-visual means and are supported by hearing and touching, when they receive information and in order to have access to learning. In order to attain the educational objectives, certain adjustments and modifications are necessary to be made in methods, educational material and the classroom environment. The parameters to be taken in consideration by the teacher in order to reach a satisfactory result in the process of learning, will be presented, along with the foreign language motivation for BVI learners, the appropriate methodological approaches, the learning strategies involved, as well as the use of alternative techniques in L2 teaching. Reference is to be made to the role of the teacher in the context of needs analysis for the specific target audience and the creation of appropriate guiding material, which is to be adjusted to learners' needs. Subsequently, ways of teaching the four L2 skills for the teaching of vocabulary, grammar and pronunciation are to be presented by providing concrete examples and teaching plans.

Room 7: **Adults**

- **Improving the quality of life for individuals with multiple disability and visual impairment by reaching out to other caretakers**

*An Verellen and Claudine Martens  
Centrum Ganspoel, Huldenberg, Belgium*

People with a multiple disability and visual impairment (MDVI), who are already, concerning their multiple disability, being supported by non specific organisations (such as schools for special education, daycare centres, institutions for persons with intellectual disabilities,...), are just like any other person entitled to receive specific support concerning their visual impairment. Centrum Ganspoel, based on an important legacy of care for exactly this type of population, offers these non-specific caretakers specialized support and expertise. The target group consists of children, youngsters and adults, all with multiple disabilities in combination with a visual impairment. Whether it's an ophthalmological problem or CVI, as well as whether it's a congenital or an acquired disability.

In the presentation we offer an overview of the different types of support related questions we receive and the issues we treat. The questions are very diverse. They are about various domains of life and always aim to improve the quality of life of the individual with MDVI. Different specialists reach out to advice locally other –non specific- caretakers or relatives : occupational therapists, speech therapists, pedagogues, educators,...

A few examples of questions :

How to support people with MDVI when having a meal?

How to support their mobility?

How to customize activities?

How to think about the design and adjustments of buildings and premises for people with MDVI?

Etc...To finalize the presentation we make an overview of the benefits and the limitations of this approach of giving advice.

- **Prevalence of psychiatric and/or additional disorders in adults who are visually impaired**

*Marit van Buijsen<sup>1</sup>, April Boessen<sup>1,2</sup>, Uta Roentgen<sup>2</sup>, Peter Verstraten<sup>1</sup>, Luc de Witte<sup>1</sup>  
<sup>1</sup> Robert Coppes Stichting, Vught, The Netherlands; <sup>2</sup> Zuyd University of Applied Sciences, Heerlen, The Netherlands*

Objective: The target group of this study were persons (aged 18+) with a visual impairment and multiple additional disabilities. The aim was to gain knowledge about the size of this target group and their specific requests for support. Methods: A preliminary study (Hidden Treasures) consisted of three components: (1) retrieving data on the number of persons and type of additional disabilities from national institutions and through a survey among 600 care organisations; (2) a scoping review; and (3) interviews with clients (N=10) and professionals (N=29). Results: (1) National organisations could not provide aggregated data on the target group. The survey (corrected response 15%) showed that 80,7% of these organisations supported clients with visual impairments; 86,7% of those clients had additional disabilities. (2) The scoping review shows that articles mainly cover subjects such as: deaf-blindness and communication; visual impairments and depression/anxiety; severe intellectual disabilities in visually impaired persons; complex multiple additional disabilities. Least represented were articles on visual impairment combined with psychiatric disorders. (3) The most important themes of interest for the target group were: trust, self-management, sincerity, creativity, sociability, continuity, collaboration, being valued and equality. Conclusion: Specific approaches and methods for this target group have not been systematically documented. A new project (Hidden Treasures Revealed) focusses on systematically documenting

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approaches and guidance of persons with visual impairment and psychiatric comorbidity, exploring professionals' needs and making an inventory of knowledge from other sectors applicable to this target group. Leading to a systematic approach and a multi-methodological toolbox. The projects are carried out by Robert Coppes Foundation (Vught, NL) in cooperation with Zuyd Hogeschool (Heerlen, NL). 'Hidden Treasures' was financially supported by Bartiméus.

- **What you can expect from the European Directive on accessible websites**

*Bart Simons*

*AnySurfer, Brussels, Belgium*

After four years of political discussions, the European Parliament and the European Council published in December 2016 a directive that requires public sector body websites to be accessible. The European Blind Union undertook significant lobbying efforts to obtain such legislation because people with disabilities need to be included in the digital society. While everybody agrees with this, government websites remained mostly inaccessible for people with disabilities. Many action plans were written and promises were made but year after year we had to conclude that no real progress in web accessibility could be monitored. This is why the European Disability Forum and Blind Union insisted to have such a legal basis. As all legislations, this directive is a compromise. In this talk I want to clarify what European citizens with a disability may expect from this directive, how they can help to implement it and what the possibilities are when accessibility issues still occur. This directive is an interesting step but it will only make a difference if we (individuals and organisations) make use of it. Therefore, the aim of the talk is not only to provide information, but mostly to empower delegates to make use of this piece of legislation. We should ensure that it leads to a useful change in the digital environment that we live in.

- **Mental management : contribution to the improvement of the quality of life in ergotherapy**

*Florence Terrier and Stéphanie Demartin*

*Œuvre Fédérale Les Amis des Aveugles et Malvoyants, Ghlin, Belgium*

As a rehabilitation therapy, the ergotherapy in low-vision aims to promote the autonomy of the visually impaired and to compensate the deficit by promoting the participation of the person in activities that are important to him, thus improving his quality of life. The possible rehabilitative approaches center around personal factors (teaching of cognitive strategies), modification of the activity (the use of audio books rather than paper) or the adaptation of the environment (ergonomics, adaptation of the lighting or use of an auxiliary means such as an optical help). Whatever the approach, the repercussions of visual loss on sensory and cognitive spheres must be taken into account. So, ergotherapists implemented the mental management in their specialized practices of accompanying the visually impaired people. Based on cognitive psychology, the tool explores, describes and studies the mental processes related to learning situations. Through a pedagogical dialogue, the purpose is to develop the metacognition of the person by raising awareness on its mental habits and effective cognitive strategies in order to broaden its skills and then transfer them to other learning. So, the discovery of mental processes helps to integrate new information and habits, and even to adapt the cognitive functioning in order to compensate for the loss. After a preliminary assessment of the mental habits (how did I function in learning a device?), ergotherapists help the person to understand the evocations that they use in a privileged way (what can I rely on learning), and suggest new perceptual modalities that allow it to access information (eg the kinesthetic modality via tactile tools) and to evoke to represent the external world. During our presentation, we will expose the key concepts of the tool and illustrate its use in specialized practices for the visually impaired.

## Thursday 6/07/2017

9:00 – 10:00 **Keynote lecture by**

**Dr. Elke Wagner, Vice-principal of Tilly-Lahnstein-Schule - Vocational Schools Nikolauspflge, Stuttgart, Germany**



Vice principal of Tilly-Lahnstein-Schule - Vocational Schools at the Nikolauspflge in Stuttgart, Germany - a Foundation for people who are visually impaired and blind.

In 2003, Dr. Wagner published a book on Social Competence and Visual Impairment. 2004 she also published a JVIB article on this topic. In Germany and in the United States, Dr. Wagner has published various articles as well as provided presentations on this subject at many conferences. She also provides in-service training on vision impairment and blindness related subjects in Europe and in the USA.

Dr. Wagner is a peer reviewer for the Journal of Visual Impairment and Blindness by the American Foundation for the Blind. She is also a peer reviewer for the Journal by the Verband der Sehbehindertenpädagogik "Blind-Sehbehindert", and she has also provided articles for this journal.

Since 2004, Dr. Wagner is the national representative for ICEVI for Germany. She also was responsible for co-organizing the last two Conferences for the European Psychologists on Visual Impairment and Blindness "ECPVI".

### Quality of life!

**How can we, as service providers, support youths and young adults who are blind or visually impaired on their path to independence and well-being as well as social and vocational participation?**

The ICEVI Conference Committee has chosen wisely! "Empowered by Dialogue" is the conference theme and Dr. Schalock's approach to "Quality of life" is the framework for the conference in those three areas and their eight domains. This is making me as blind person extremely happy because it speaks from my heart.

Quality of life is the ultimate goal, that sometimes is easy to attain and at other times almost impossible to see and then to reach. But ... don't we all have to face this challenge on a daily bases?? What makes it so special under the condition of a vision impairment or blindness?

Living with a vision impairment often brings about a number of functional and emotional challenges that may negatively impact and or disrupt important aspects of daily life and ultimately is impacting quality of life for both the person with the disability itself as well as his or her family and friends. Looking back on my life, I know that the most difficult time in adjusting to my visual impairment and eventually beginning to accepting it, as well as facing all the fears and obstacles, was the time of adolescence and young adulthood. Research confirms this personal experience through many, many studies that have been conducted over the last decades.

„Adolescence is an emotionally tumultuous time in many young people's lives, and children and young people with visual impairments are no exception. Like their sighted peers, they may discover that their bodies are changing as their hormones take center stage, and they may experience frequent mood swings, ranging from feelings of insecurity and confusion to fits of rebellion. This is the time that tries the patience of parents and teachers, but it is also a time of tremendous growths in such areas as independence, and career development. It is therefore an opportune time to present young people with additional challenges from which they may learn and to encourage them to prepare for life beyond school" (Kay & Erin 1999, 277).

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Here we find the key time to offer our expertise and to get into dialogue with this group through structured programs and providing coping strategies as well as just having conversation one on one or in a group setting. Especially in this time period it is of utmost importance to work with youths and young adults to help them to find their place and role in society and more important to make them realize that they can be independent and feel confident about themselves in spite of having a vision impairment.

„One of the Problems that disabled people have, in addition to their genuine functional limitations caused by their condition, is, that problems arise for want of self-confidence. One of the reasons many blind people find it hard to negotiate good deals is, that they think, they have nothing to offer. For this you need strategies, you have to work out what to give as well as what to take. ... The very least you can do for somebody who has taken enough interest in you to offer help is to show interest in him” (Carey 2000, 83).

In recent years the term social and emotional competence has become more and more important in the field of visual impairment and blindness. Individuals who are visually impaired very often show a deficit in this area. As a result, a lack of self-esteem, self-efficacy and self-confidence can be an obvious problem for this population. Without that, it seems almost impossible to find ones determination relating to physical, emotional and material well-being. Young adults may feel excluded from society in relation to social and vocational participation. In some cases it may even lead to isolation.

Academic contents are still the key component in our core curricula at schools and in vocational training. Thankfully this is finally changing and shifting towards the key skills and competencies that Dr. Schalock incorporates in his approach to Quality of Life. In comparison with the Expanded Core Curriculum (ECC) in the US, that Phil Hatlen preferentially initiated we can see such ECCs more and more developing in Europe as well. Just think of the VBS Conference in Graz last year, where an ECC for vocational training was introduced. Some countries have an extended curriculum that includes certain subjects that can be summarized under the term social skills. Those contents should be implemented through special lessons, as a principle in the regular classroom lessons, and as certain projects throughout the year. This should be mandatory but it still isn't. Professionals in the educational field of visual impairment and blindness realize the special need of such programs containing more specific subjects to acquire social and emotional competence. But it still is very difficult to incorporate these contents into the daily learning routine. It also is sometimes challenging to accept and work with family members and friends as equal partners in this endeavour.

In addition to academic skills, social and emotional competence should have a set place in every core curriculum not only for the general education system but also for the vocational schools for the visually impaired and blind as well as in all inclusive settings. The goal of “social skills instruction” is to provide blind and visually impaired youths and young adults with the information and skills they will need in order for them to e.g. feel confident and comfortable in social situations. (in: Wolffe 2000). „Confidence is a conscious feeling of certainty, surety, and self-reliance. The students' confidence in their ability to perform tasks assists in the development of their self-concept and self-worth” (McMakin 1976 in Huebner 1986, 141).

Looking at the time of publication one might think: “Why is this still being discussed?” Well it is! I would like to emphasize a few areas that we as professionals and also we as consumers, family members and friends have to consider and work with, when dealing with possible emotional and social problems of a person with a vision impairment advancing from youth to adulthood.

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Huebner, K. M. (1986). Social skills. In: G.T. Scholl (Ed). *Foundations of education for blind and visually handicapped children and youths: Therapy and practice*. New York, NY: American Foundation for the Blind. 341-362.

Kay, J. L. & Erin, J. (1999). The middle school years. Attitudes for students who need additional modifications. In: K.E. Wolffe (Ed). *Skills for success*. New York, NY: American Foundation for the Blind. 275-379.

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Wolffe, K.E. (2000). Career Education. In: A.J. Koenig & M.C. Holbrook (Eds). *Foundations of Education*. (2<sup>nd</sup> edition), Vol. II: Instructional strategies for teaching children and youths with visual impairments. New York, NY: American Foundation for the Blind. 679-719.

10:30 – 12:30 Parallel Session IV: Oral Presentations

Room 1: Early Childhood

- **Ipad applications for children with visual and multiply impairment - The family of EDA PLAY Apps**

*Alice Pexiederová, Martina Vaňkátová and Markéta Skalická  
Early Intervention EDA, Prague, Czech Republic*

- Center EDA as a non-profit institution developed four applications (EDA PLAY, EDA PLAY TOBY, EDA PLAY PAULI, and EDA PLAY ELIS) for iPad devices since 2013 (<http://www.edaplay.com/>).
- The applications are designed for the vision training for children with visual disorders and visual impairment. All the pictures are rendered against a black background, in striking colours, and understandable shapes. Children can focus their attention on the picture and watch the change after touching the display.
- The applications offer specific tasks, various levels of difficulty, a choice from several options. Children control the application by a simple touch of a screen, following the trail with a finger etc., so the children with multiple impairments are motivated to train their fine motor skills.
- The applications contain the Skills section which records the work of the child with the application. Thus, the parents and therapists can monitor the progress of the child's skill development over time.
- All applications include simulator of the most common visual impairments; for example blurred vision, nystagmus, hemianopia, visual field defects.
- After successful introduction of the first application (EDA PLAY), the feedback and actual needs of our client families and their children led us to design applications for children with more severe impairment or apps with a storyline (EDA PLAY TOBY, EDA PLAY PAULI, and EDA PLAY ELIS).
- The EDA PLAY applications are designed for iPad devices. We plan to adjust the software for the Android system too.

- **The success of a new conference organization methodology**

*Elena Gastón López  
Direction of Education, Employment and Cultural Promotion, ONCE, Madrid, Spain*

Last November, in Spain we organized a meeting of professionals of Early Intervention of children with visual impairments. We organized it from DATO Group, a Group of Dynamization of the Early Intervention, giving great participation from a first moment to the all participants. The organization and the novel aspects of the structure of the Conference have been very interesting and positive. It was developed in a day and a half, although they carried a lot of previous work. It began with a panel discussion with experts in neuropsychiatry, neuroeducation and pediatric psychiatry. It was a highly inspiring round table for the rest of the meeting. On the other hand, we held reflection groups on nine topics that had previously been proposed by the attendees, and each led by one of the more experienced assistants. In all of them, there were written conclusions. Finally, there was a short session of experiences in which all the attendees were invited to send their experiences in advance and expose them in 5 or 6 minutes. This structure allowed to combine the scientific knowledge with the reflection and the exchange of experiences. The participants valued it very positively, both the exchange with their colleagues and the depth of reflection and innovation proposed by the speakers at the round tables. We want to explain this experience in detail so that it can serve as a future for local and thematic conferences, and maybe even for European ICEVI conferences.

Room 2: **School Age**

- **Spatial thinking and Visually Impaired students: an educational program of intervention**

*Maria Zeza, Philippos Katsoulis, Mary Styliidi*  
*Special Elementary School for Deaf- Blind in Athens, Greece*

The purpose of this study is to present an educational program of intervention for students with visual impairments and screened difficulties in spatial thinking. The study uses a qualitative research methodology and the case study methodology was followed. The program of educational intervention was planned and modified in order to meet students' difficulties and promote the spatial thinking in the allocentric frame of reference. Spatial thinking includes processes that support exploration and understanding, beginning with the ability to use space as a framework. Students with visual impairments usually tend to use an egocentric (referred to the body location) strategy to elaborate and encode on spatial information and may find it difficult to succeed in transition from that egocentric to the allocentric (externally organized space) frame of reference, based on their experiences. In the case of students with visual impairments spatiotemporal patterns are encoded through touch (text, tactile image, objects) and it is the coherent and sequential way of the representation which allows the extended spatiotemporal patterns to be emerged. The designed multisensory and concrete activities offer opportunities for spatial thinking based on experiential learning experiences. Through this educational program of intervention students with visual impairments promote their spatial thinking, become more independent and start to perceive and elaborate on curricular objectives insightfully.

- **The Spatial Representations Workshops: methods to develop skills and acquire autonomy**

*Mikhael Poznanski and Laurent Vincent*  
*Poznanski M., INJA, Paris, France*

The "Spatial Representations Workshops" at the National Institute of Blind Youth is an interdisciplinary program designed for VI students. In this program, the students develop tactile, haptic and cognitive capabilities. Our purpose is to improve their autonomy, increase their efficiency during their schooling and everyday life, develop their skill to use specific tools and help them build a more precise representation of reality. The five workshops listed below were conceived and are lead over four years by teachers of biology, chemistry, geography, mathematics and plastic art, ADL and locomotion instructors, and psychomotor therapists.

- "Touch and Say" is often the very first approach to tactile grip and give them the appropriate vocabulary related to the sense of touch.

- "Orientation" uses the haptic dimension of spatial representations in order to develop skills in 2D supports and in space.

- "Precise Drawing" gives the opportunity to enhance the accuracy of detailed gestures, and gain experience in the rigorous use of adapted tools.

- "Projections and Representations" helps students improve their skills to represent objects in 2D and 3D, significantly developing their capabilities for abstraction.

- "Complex Strategies" encourages them to use human assistance during exams and trains them both in reading and in producing tactile drawings for school use.

Each workshop comes with a booklet of competencies and with an educational sheet for teachers. The booklet allows the team to precisely assess each skill being worked on. The educational sheet details concrete activities that help students progress in each separate skill.

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- **How 3d printing can support and help children with VI in education**

*Ruben Brandsma and Eric Velleman*  
*Accessibility Foundation, Utrecht, The Netherlands*

Rich media is becoming more present in everyday education. This includes rich mobile and webapplications, VR and AR, animations, video and now we see rich interactive 3d printed models that find their way into our classrooms. All this directly impacts the accessibility of education for persons with VI. However, 3d printing can greatly benefit persons with VI and offer them new opportunities for multimodal exploration and learning that goes far beyond classic paper or digital learning. Today, creating rich 3d printed models and combining them with conventional modalities can create accessible educative experiences that have not been seen before and that can be easily produced at low cost. Teachers and VI students can even do this together by combining easy to use technology, 3d printing and a few simple accessibility tips. We will present the preliminary conclusions of our fieldwork study into 3d printing to support and help children with VI in education in the Netherlands. This includes an exploratory review of the problems, review of materials and tactile sensing and practical proposals to include interaction and guided exploration into rich interactive 3d models for VI persons at low cost.

- **Teaching mathematics and music to blind and partially sighted learners through knowledge and technology**

*Lars Ballieu Christensen<sup>1</sup> and Tanja Stevns<sup>2</sup>*  
*<sup>1</sup> Sensus Aps, Department of Inclusion Technology, Hillerod, Denmark; <sup>2</sup> Synscenter Refsnæs, Danish National Resource Centre for Blind and Partially Sighted Children and Youth, Kalundborg, Denmark*

While the move towards inclusive education for all is generally accepted as a major improvement of the rights and opportunities of the blind and partially sighted, it also exposes challenges. The transitioning of special schools into resource centres comes with a high risk of eroding basic teaching skills amongst those teaching the blind and partially sighted. IncluTech is an EU Erasmus+ project (2015 – 2017) aimed at documenting good inclusion practices as well as how a variety of subjects are taught to blind and partially sighted learners. Bringing together partners from Bulgaria, Cyprus, Denmark, Hungary, Italy and Romania who are all at different stages of inclusion, the project has documented the combined experiences from special schools, resource centres, rehabilitation centres and academia into a catalogue of good inclusion practices and a series of educational guides covering first language learning, foreign languages, mathematics and music. The presentation will present the results of the IncluTech project and discuss the importance of documenting core principles, methods and tools of teachers at special schools for the blind and partially sighted before these are forgotten.

### Room 3: **School Age**

- **Children suspected of CVI: Structured way of observation children between 2,9 months and 12 years and the use of uniform observation lists, material and reporting templates.**

*Nicole Scheirens*  
*Centrum Ganspoel Vlaams Brabant, Belgium*

Children suspected of CVI: Structured way of observation children between 2,9 months and 12 years and the use of uniform observation lists, material and reporting templates. In

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Belgium children can be tested of CVI in a standardised way from a developmental age of 2,9 years. This CVI-testing is done in specialized, multidisciplinary centres, mostly linked to a hospital. For some children, this standardised testing, at one moment, mostly using paper- or computertasks, is not the best way to diagnose CVI or not. In some cases, it can be more difficult because children have also other problems like suspicion/diagnose autism, DCD, impairments of speaking...Then our centre Ganspoel is asked to observe the child for one year in the home and school situation. After a year, this observations are taken into account by the diagnostic centre to decide if the child has CVI or not. Colleagues from our centre doing these observations, needed help to do this. What can you observe? Which material can you use? How to report your observations? Together we made a manual for an observation year. This includes:

- An overview of all observation lists we use to observe in class, at home... on different ages  
There are 16 lists we selected who can be used during that time.
  - A box with materials (for example lots of pictures, blocks, puzzles...).
  - A template to structure observation data in a certain and uniform way
- These materials can be showed during the presentation.

- **Sensitization about Cerebral Visual Impairment. The Cerebral Visual Impairment awareness program**

*Lore De Deyne, Martine Dierckxsens and Emma Vandamme  
Spermalie (VZW De Kade), Bruges, Belgium*

Since Cerebral Visual Impairment (CVI) has become one of the most important causes of visual impairment in children, the need for information about this condition increases. This was the motive to organize a systematic awareness program about CVI. This program is focused on referring authorities and on persons involved in the care of those children. Referring authorities include student guidance centers, paediatricians, ophthalmologists, rehabilitation centers, follow up centers for babies and centers for premature born babies. The persons involved in the care of those children include parents, caregivers and teachers who assist children with CVI in regular or special education. The main aim of sensitization is to spread and increase the knowledge about CVI. For the referring authorities, we hope better knowledge increases early referral to a specialized team. We hope early referral leads to early stimulation For people involved in the care of those children, we hope better knowledge helps them better understanding the visual impairment and better understanding the child. From understanding the characteristics of the impairment, the problems that can occur and the recommendations for approach & support, the support of the child can be optimized. This will increase the wellbeing of children with CVI. Since CVI is difficult to comprehend, finding a good way to explain it and to let people experience it is challenging. Besides a theoretical explanation and discussing case studies, the use of practical exercises that make people experience some CVI-related difficulties have proven to be very clarifying and illustrative. In the presentation we will go through the program and the way it is presented to different target audiences. We will also demonstrate some of the practical exercises

- **Cerebral visual impairment and teaching packs**

*Eric van Heuvelen  
Bartimeus institute for the visually impaired, The Netherlands*

Using the computer for learning, reading and learning to read for vision-impaired students with cerebral visual impairment (CVI) is a means, in which as much as possible the usual reading methods and teaching methods are used. Computer accessibility software for the visually impaired, and the change of settings within Windows and Windows applications give opportunities to support the reading process. By linking the knowledge from research

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and literature about reading and learning to read by students with CVI and the possibilities offered by advanced computing, the aforementioned student is adequately supported. The courses given by Bartiméus to teachers dealing with students with CVI turn out to be a good introduction, but insufficient to adequately supported use of the computer in the reading process with CVI students. Evaluation shows that there is a need for further training. As a result teaching packs have been developed supporting teachers dealing with CVI students in daily practice. At the end, the visual impaired student with CVI is able to use the computer for the benefit of his/her reading and learning process.

- **Empowering dialog in classrooms: Challenges and needs of teachers of students with visual impairments in Turkey**

*Mehmet Cihan<sup>1</sup>, Kubra Akbayrak<sup>2</sup>*

*<sup>1</sup>Texas Tech University, College of Education, Lubbock, TX, USA; <sup>2</sup> University of Birmingham, Visual Impairment Centre for Teaching and Research, Birmingham, UK*

The aim of this study is to investigate what challenges and needs of teachers of students with visual impairments (TVIs) working at elementary level in special education schools for the visually impaired in Turkey in regards to their teaching and non-teaching responsibilities. The questionnaires were designed to be completed in an online format through 'SurveyMonkey' and were distributed to TVIs working in 17 special education schools for visually impaired students across Turkey in 2016-2017 school year. The participants were mainly asked about how they spend their time with their teaching and non-teaching responsibilities in the classroom, and they were asked to rate their challenges and needs in relation to their responsibilities with using 5-point Likert scales. The collected data will be descriptively analysed; however, preliminary results illustrate that TVIs mostly lack classroom equipment in meeting the needs of students with low visions and multiple disabilities. Regarding to professional development area, the results indicate that most of TVIs are not satisfied with pre-and in-service trainings they have received before and been currently receiving and believe that pre-service trainings for TVIs should be redesigned to meet needs in practice. Organizing seminars or workshops to educate school staff and parents about visual impairment and enhancing collaborations between professionals in school, family members, and district persons are also emerging needs that require immediate actions. With the completion of this study, the findings will give an insight into the teaching practice of TVIs in Turkey and empower dialog between teachers and students in classrooms.

### Room 4: **School Age**

- **Visual ability in multiply impaired children with cerebral palsy**

*Ana Katusic<sup>1</sup>, Snjezana Seitz<sup>1</sup>, Tatjana Petrovic Sladetic<sup>1</sup> and Sonja Alimovi<sup>2</sup>*

*<sup>1</sup>Day-care Centre for Rehabilitation Mali dom – Zagreb, Zagreb, Croatia; <sup>2</sup>Faculty of Educational and Rehabilitational Science, Department for Visual Impairment, Zagreb, Croatia*

**BACKGROUND:** Visual functioning is often impaired in cerebral palsy (CP). Tools are needed to describe this complex function, in order to aid resource planning and to provide effective support. **OBJECTIVES:** To study visual ability and the relationship between the Visual Function Classification System (VFCS) and CP subtype, gross motor function, manual ability and neuroimaging findings in multiply challenged children with CP. **MATERIALS AND METHODS:** Fifty children with CP (32 males, 18 females) aged 6-14 years (median age 10 y 3 mo) participated in the study. The VFCS, Gross Motor Function Classification System (GMFCS) and Manual Ability Classification System (MACS) levels and neuroimaging findings were recorded. **RESULTS:** The classification system provided information about daily visual performance.

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VFCS levels I-II were found in 65% of children with unilateral spastic CP, 40% in bilateral spastic CP and 12% in dyskinetic CP ( $p = 0.03$ ). VFCS correlated with the GMFCS and MACS level ( $p < 0.01$ ). Periventricular lesions were associated and subcortical lesions were associated with the less functional VFCS levels. The sparing of subcortical nuclei is an essential requirement for early brain plasticity of visual functions to be effective. CONCLUSION: Visual function profiles in CP can be derived from the VFCS, which correlates to gross and fine motor function. An early and accurate assessment of visual ability is critical in the context of neurorehabilitation of CP. It undoubtedly contributes to neuromotor and cognitive improvement.- that means it enhances performance of individual in all aspects of life and that inevitably leads to improvement of life quality.

- **Visual data sheet, detailed information from the visual disabilities and it's impact on daily life.**

*Jessica Moens*

*Occupational therapy, Centrum Ganspoel, Belgium*

For parents and supervisors of persons with visual and multiple disabilities it's not easy to have a concise and clear overview of the visual disabilities. Parents are often looking how to inform the environment (family,leisure clubs etc...) the visual performance of their child. In order to gather detailed information from the visual disabilities and its impact on daily life, we use in Centrum Ganspoel, Belgium the Visual Profile of dr. Paul Looijenstijn, VISIO. In addition to this comprehensive compilation of information, we went looking for a concise, accessible and convenient way to list the visual disabilities. For this purpose, we designed the visual data sheet, a visual passport the size of an A4 sheet. The visual data sheet is a customizable Word document with text balloons that can grow with the child. The file contains information about visual problems, the impact of visual impairment on the functioning of the various areas of life such as reading and writing, dealing with computers and technology, ADL, leisure and physical activities. Important when filling out the data sheet is the involvement of the person with visual impairments itself. The past two years, our occupational therapists, composed this visual data sheet within our center for a large number of children, youngsters and adults. The visual data sheets were presented to the team of supervisors and parents. The latter are invited to use the visual data sheet as interpretation for the visual performance of their child. In this presentation we want to introduce the visual data sheet to you and share our experiences with you.

- **The effect of rehabilitation using Yoga elements on visual functioning in young adult with multiple disabilities and visual impairment , Case Study**

*Martina Sedlar*

*Day Care Centre for Rehabilitation of Children and Young Adults "Mali dom – Zagreb",  
Zagreb, Croatia*

Background: Using yoga positions and breathing exercises has shown to be effective in decreasing visual reaction time in children without disabilities. Only few studies have been conducted in order to determine the effect which implementing elements of yoga in working with children with disabilities had on their functioning in different developmental areas. Objective: To establish if rehabilitation through using yoga elements can influence visual functioning of young multiply disabled visually impaired young adult. Methods and materials: Case study was conducted during 6 month period with the 15 year old student with MDVI in Mali dom -Zagreb. The study was divided into three parts:

Baseline - initial assessment was done prior to intervention. During the assessment we measured visual functioning and visuo-perceptive functioning. Implementation of rehabilitation program created with yoga elements was conducted during period of 5 months 2 times a week. Sessions were 45 minutes long. Every seventh session reassessment

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was conducted in order to monitor changes in visual and visuo-perceptive functioning. All assessments and reassessments were videotaped..

In order to measure the lasting effect of this kind of program on visual functioning, we did final assessment (follow up) one month after the last session was implemented. Results and Conclusion:

Results have shown a positive influence of rehabilitation of using yoga elements both on visuo-perceptive function and on following visual functions : convergence, visual tracking, motility and contrast sensitivity, of a young adult with MDVI. Improving in this functions will enhance communication, make further education more successful and it will result in more independence in everyday life and higher level of participation in community of young adults with MDVI.

- **Tactual Profile - The development of the MDVI version**

*Ans Withagen<sup>1</sup>, Anneke Blok<sup>2</sup>, Wieneke Huls<sup>2</sup>, Ineke Jacobs<sup>2</sup>, Marij de Lange<sup>3</sup>, Nanouk Scheening<sup>3</sup>, Miranda Zwijgers<sup>2</sup>*

<sup>1</sup> Royal Dutch Visio, Education, Huizen, The Netherlands; <sup>2</sup> Royal Dutch Visio, Rehabilitation, Amsterdam, The Netherlands; <sup>3</sup> Royal Dutch Visio, Education, Haren, The Netherlands

About a decade ago we developed Tactual Profile in the Netherlands. This is an observation instrument for charting tactual functioning of children, who have a severe visual impairment, from birth up to 16 years of age. The instrument is outlined as a 'structured observation'. A lot of colleagues working with children familiar with MDVI asked us whether the instrument was also suitable for this group. Since it was not especially developed for this target group, we thought it was not the appropriate instrument to use for MDVI. The verbal instructions were too difficult to understand and the steps in development too big. We decided to develop a special MDVI version of Tactual Profile to observe the tactual skills of this target group. In 2014 we started with this project. The steps in the tactual development are more refined in the MDVI version. The instruction is less verbal or non-verbal and the persons are evoked more explicitly to show tactual responses to the items which are presented. Domains of tactual functioning which are observed:

- Tactual Sensory Functioning: Noticing, Body awareness, Touch sensitivity, Proprioception
  - Tactual Motor Functioning: Tactual exploration, Two-handedness
  - Tactual Perceptual Functioning: Recognition, Part-whole relationships, Tactile-spatial perception, Figure-ground perception, Tactual language, Touch strategy
- The focus of the items is less on perceptual functioning and more on sensory functioning (in comparison to Tactual Profile). Tactual Profile MDVI also offers an overview of Factors, which influence tactual perception and functioning. The survey provides a so-called tactual conceptual framework. This survey can be used when evaluating the performance of a person on the assessment. The results of the observation in combination with the conclusions from the survey will be the starting point for stimulation and training of tactual functioning. Objectives: - the presentation will focus on the assessment with Tactual Profile MDVI - the overview of factor which influence the tactual functioning of MDVI will be introduced

### Room 5: **Young Adults**

- **Transition from adolescence to adult life**

*Riet Gyselbrecht, Arlette Vermeire and Kathleen Deweerdt  
Secundaire School Spermalie, Brugge - Belgium*

"What comes after school?" This is a question that is often asked when talking to our students and their parents. An urgent question for students who's perspective is to move to a day-care centre. To prepare students and their parents for this future step, we focus on

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this transition from early on in their school career. The school curriculum is therefore build around these 3 themes: 'work', 'living skills' and 'free time'. One of the groups in our school, called 'JOVO' witch is short for "Jong Volwassenen (Young Adults), is actively preparing the transition from adolescence to adult live. A key item in this program is 'Social and Society Training' (Sociaal Maatschappelijke Training). At the beginning of the school year the team of teachers consider and plan the individual activities for each student. Specific needs and talents of each student are the starting point for an individual program for each student and his/her network. The individual program is build step by step towards the main goal of the future adult life in a day-care centre. At a certain time the student and his/her teacher, parents and a family-counsellor will visit different day care centres and/or group homes for adults. They learn about different types of activities, organisations and support systems for adults. We want to show concrete examples of how a transition project can be realised in a pro-active collaboration of all partners concerned.

- **Transition from youngster to early adulthood in different aspects of life**

*Eva De Stecker and Sharon Deprez  
Vzw De Kade, Begeleidingscentrum Spermalie, SAVI*

This presentation is about the way young people with visual impairments in boarding school, can experience different challenges in everyday life, on the way to adulthood. In working with these students, we offer a variety of contexts to progressively ask for more responsibility and knowledge about everyday life (budgeting, shopping, health and Healthcare, meals, maintain relations, problem-solving,...)We take into account age, maturity, motivation and openness to guidance. Based on this, they can stay in the community, in studio or in 'House 41'. Within each type of housing, counseling aspects have a slightly different shape, but focus on what the young person is required to achieve a meaningful en quality life. This is all done in a warm and supportive relationship with their supervisors.

- **The linkage between self-determination and psychosocial functioning of adolescents with a visual impairment**

*Eline Heppe<sup>1</sup>, Sabina Kef<sup>1,2</sup>, Carlo Schuengel<sup>1</sup>  
<sup>1</sup>Vrije Universiteit Amsterdam, Faculty of Behavioural and Movement Sciences, Clinical Child and Family Studies and the EMGO+ Institute for Health and Care Research, Amsterdam, the Netherlands; <sup>2</sup> Bartimeus, Zeist, the Netherlands*

Aim: Adolescence is a period characterized by transitions and transformations, across physical, psychological and social domains. Self-determination is as much an outcome as a process factor within these transformations, closely related to psychological functioning. Youth with a disability are often less stimulated in self-initiated and volitional behavior, manifesting itself in dependency and overprotective parenting. This study focuses on the linkage between psychosocial functioning and basic psychological needs according to the Self-Determination Theory (Deci & Ryan, 2000) for autonomy, relatedness, and competence of adolescents with a visual impairment (VI). Method: 77 adolescents (35 male, 15-22y ) having a visual impairment participated. Reliable and well-known questionnaires for self-esteem, loneliness, well-being, and the three basic psychological needs were administered via computer assisted telephone interviews. Results: The mean scores on the three basis psychological needs of autonomy, relatedness and competence are rather high. Furthermore, no significant differences for people without disabilities (Chen et al, 2014) emerge, except one: youth with VI score higher on autonomy than persons without VI ( $p < .05$ ). Results show that satisfaction of the basic psychological needs is associated with well-being, loneliness, and self-esteem. Regression results point towards the importance of

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especially relatedness and competence on psychosocial characteristics (R2 ranges from .20 to .56,  $p < .003$ ) . Conclusion: This study provides evidence for the important role of satisfying the basic psychological needs for self-determination during adolescence. Our results suggest that compensating support systems must be established, especially for those adolescents who are at risk of not meeting their basic psychological needs.

### Room 6: **Adults**

- **Methodology of the training “Passeur de sens”: accessibility in the cultural and touristic fields to improve quality of life**

*Stéphanie Demartinu and Sophie Hamaide*  
*Œuvre Fédérale Les Amis des Aveugles et Malvoyants, Ghlin, Belgium*

Initially induced by sensory impairment, disability is also defined by contextual and environmental factors and largely influences social participation. While some aspects relate to the individual and his ability to adjust to disability, others are social responsibility in the sense that accessibility must be ensured for all, whatever are the specific needs. It's within this context that our formative approaches are aimed to maximize the accessibility in cultural, touristic and leisure fields, since this latter constitutes a major stake in social relations, autonomy, inclusion , and therefore, the quality of life. In the field of cultural, tourism and of the leisure activities, the challenge is to increase the accessibility of the accessible offer, allowing autonomous access to activities that generate pleasure and self-fulfillment for all. In this context, the training "Passeur de sens" aims to equip professionals in the cultural and tourism sector with theoretical and practical skills around the reception of the not or partially-sighted public. The objective consists to integrate multisensoriality into accessibility, in order to allow the creation of mental representations bearing meaning and emotion for the visually impaired people. The content integrates aspects related to visual impairment and its functional consequences, as well as aspects related to the accessibility and development of specific tools (audiodescriptions, multisensory adaptations, etc.). The methodology is original as far as the training involves the museums and integrates their expertise but also solicits the participation of visually impaired people who systematically validate the adaptations carried out by the "Passeurs de sens". Through testimonies of visually impaired people and illustrations of adaptations, we propose to illustrate how the training of professionals around accessibility constitutes a vector to improve the quality of life.

- **Advising assistive technology in the era of Universal Design**

*Jeroen Baldewijns*  
*Blindenzorg Licht en Liefde, Brussels, Belgium*

Until some time ago, visual impaired people needed to use assistive devices to gain access to computers. These assistive devices were developed by highly specialized companies, who are very aware of the special needs of people with vision loss or no vision at all. Therefore, they developed magnifying software, screen readers, synthetic speech engines and braille displays ... And each time Microsoft came up with a new Windows version, they had to make their products compliant to this new situation. Some years ago, Apple started producing Universal Design products: computers, smartphones, tablets, smart watches, set-top boxes. These products are accessible out-of-the-box, without having to install extra access products, such as magnification or screen reading software. Google followed by making Android accessible and Microsoft joined recently. This evolution has a huge impact - both positive and negative - on the use of ICT-devices by visual impaired people. Issues such as financing or support have

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to be solved. Organisations that provide independent advice in assistive technology, have to implement this Universal Design approach into their services, based on a correct assessment. This is not an easy exercise. How can a consultancy service cope with this? During this lecture we will explain how Blindenzorg Licht ten Liefde reorganized the its consultancy service on assistive devices in this era of Universal Design.

- **Non-verbal communication - Thoughts and experiences among persons with blindness**

*Tina Björk*

*National Agency for Special Needs Education and Schools, Stockholm, Sweden*

The use of non-verbal expressions is challenging in the interaction between pupils with blindness and sighted peers. This presentation will be about a study where interviews were carried out to gain knowledge about blind adults' thoughts and experiences on non-verbal communication. Four in-depth interviews were conducted and analyzed. • How do blind adults acquire, use and interpret nonverbal communication? The results revealed that it is difficult to express "moderate" body language according to sighted standards. This appears to limit one's own body language. Participants emphasized the value of close relations to sighted persons, demonstrating body language. Although body language is frequently reflected in the voice, it can be demanding to perceive mixed messages.

- How do blind adults think their visual impairment affects interaction with sighted people? According to study results sighted people's attitudes highly influence the communication. Misunderstandings mainly arise in dialogues with unknown individuals, and background noise substantially aggravate interaction with others. Implications from this study can make educators aware of factors that promote communication between sighted persons and persons with blindness.

This could further

- favorably affect the teaching of pupils with blindness.
- facilitate the interpretation of non-verbal expressions and
- encourage persons with visual impairment to use their body language.

- **The online Digital Lifebook: a communication aid for the MDVI**

*Dick Lunenburg and Maaike Meerlo*

*Bartiméus, department Bartiméus Fablab, the Netherlands*

A "lifebook" is a communication aid for individuals with MDVI. Each book contains personalized information about the client, such as hobbies, memories, friends, and family. The book provides a medium through which the client can communicate about the things most important to them. In this presentation we will demonstrate how the tool was developed, share our experiences of implementation in a large residential community of clients with MDVI, and show how the lifebook is now being adopted by other organizations throughout the Netherlands and across different target groups. A key aim of the project was to develop a tool that is extremely easy to use by staff and family, even with little or no background in ICT, so that it can be used across settings and reach a wider audience. Working together with the client, you can create a unique lifebook, composed of photos, sounds, and movies, through one on-line platform, and can configure the user requirements to meet your client's specific needs (whether they are blind or partially sighted, have physical limitations, and even if needs vary across time). We will also demonstrate how easily the clients themselves learn to use their lifebooks as communication aids, and the impact this new approach has on their lives. For example, in individuals with degenerative disorders, such as Batten disease, the lifebook enables them to communicate with their friends and family about previous life-events and memories that might otherwise have been lost.

Room 7: **School Age**

- **How do Students use Braille and Synthetic Speech while Reading, Comprehending and Processing Mathematical Tasks?**

*Annemiek van Leendert<sup>1,2</sup>, Michiel Doorman<sup>1</sup>, Johan Pel<sup>3</sup>, Paul Drijvers<sup>1</sup> and Johannes van der Steen<sup>3</sup>*

*<sup>1</sup> Utrecht University, UU Beta Math Department, Utrecht, The Netherlands; <sup>2</sup> Royal Visio, Rotterdam, The Netherlands; <sup>3</sup> Erasmus University Medical Centre, Rotterdam, The Netherlands*

Braille-dependent students encounter difficulties when reading and comprehending mathematical expressions. In the Netherlands, braille-dependent students start working on a laptop at the age of about 10 years. The screen reader software on the laptop displays the information on a refreshable braille display or reads the information using a synthetic voice. Most braille-dependent students use both modalities. There is, however, scant information about how they do this while reading and comprehending mathematical expressions. In November 2016, we started a pilot study in which three braille-dependent grade 11 students participated. During the study we observed and interviewed students while they tried to solve mathematical tasks. The first findings show that dictionary settings are not adapted for mathematics (e.g. “(, “)” and separated “-“were not pronounced: “(-6 – 7)” is pronounced as “minus six seven”). To be able to read and comprehend the details of the expression, they used and compared both modalities by moving the cursor. Finally, the students preferred braille to synthetic speech when they had problems with comprehending the mathematical structure of the expression. The three students were convinced that there is great potential for improvement of the use of braille in combination with synthetic speech as well as in developing reading and comprehending strategies for mathematical expressions. Future research is needed to improve the students’ mathematics learning.

- **“Then I can read faster and make less mistakes” – Children with reading difficulties reporting on the influence of environmental factors on their reading performance**

*Sonja Breitenbach*

*TU Dortmund University, Provision, Dortmund, Germany*

The ability to read is a key competence and enables to learn throughout a lifetime and to participate in society. Reading is a complex task on many different levels. From a visual perspective it requires the effortless and rapid processing of fine visual details (Hyvärinen & Jacobs, 2013). The efficiency of visual processing is based on visual physiology, but also depends on the environmental setting, which is rarely considered in assessment and intervention. The International Classification of Functioning, Disability and Health (ICF) includes environmental factors (physical, social and attitudinal) as essential aspects to describe and gather information about functioning and disability (WHO, 2001). This exploratory study investigates what children with reading difficulties report on the influence of physical environmental factors (e.g. contrast condition, font size) on their reading performance. A semi-structured interview was developed following the ICF categorization of environmental factors to specifically capture visual aspects. The evaluation of data was done by using a qualitative content analysis. 32 German children from 3rd to 5th grade with reported reading difficulties were interviewed. The qualitative analysis of statements demonstrates that the interviewed children were able to draw very precise lines between specific environmental factors and their reading performance. Frequently indicated factors were font size (n=24) and light condition (n=16). These results illustrate children’s experiences of environmental factors to influence their reading performance. Moreover the reports highlight the ability of children to give specific information about environmental

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barriers and facilitators, which is an important source to guide reading assessment and intervention.

- **Who needs to know what? - A study to differentiate between the knowledge of TVI and mainstream school teachers in the inclusive education system**

*Marie-Luise Schütt*

*University of Hamburg, Faculty of Education, Hamburg, Germany*

With the ratification of the UN-Convention on the Rights of Persons with Disabilities in 2009, Germany committed itself to implement an inclusive education system at all levels (UN 2006/2008). Currently, the inclusive education of pupils with blindness and low vision is increasing. As a result, qualified mainstream and special education teachers (especially TVI) are needed who are able to design accessible learning settings. Based on the approach of Universal Design for Learning (UDL), which aims to reduce barriers to the curriculum while maintaining high-level education for all, necessary competencies of future teachers will be identified and the teacher training at the University of Hamburg will be revised (Meyer & Rose 2014; Rapp 2014). To reach these aims, a four-phase study is carried out. In the first step, following UDL, the necessary skills of mainstream school teachers and TVI are described. It shows that mainstream school teachers also need knowledge of TVI, e.g. about lighting for minimizing distractions in the learning setting (Rapp 2014). Secondly, a quantitative online survey is conducted at the University of Hamburg to analyze the needs of knowledge in the teacher training (January 2017). In the third step, a service center (InkluSoB – inclusive school without barriers) will be established (e.g. workshops: creating accessible learning materials, peer-to-peer-counselling). Finally, the evaluation of the service center takes place. This paper will present first results of the online survey, followed by an outlook of the future steps.

Thursday 6/07/2017

14:00 – 15:30 Workshop Session III

**Room 1: Visual functioning of babies and young children with visual impairment or multiple disability and visual impairment: how to assess?**

- **Visual functioning of babies and young children with visual impairment or multiple disability and visual impairment : how to assess?**

*Myriam Callemeyn, Marlies Praet, Mieke De Pourcq, Mieke Vandorpe, Kim Maesele,  
Mobile Support Service Accent – Center of expertise Spermalie/ de Kade, Brugge, Belgium*

Estimating the visual ability and assessing the visual function in babies and young children with Visual Impairment (VI) or Multiple Disability and Visual Impairment (MDVI) is a challenge. By means of a workshop we will present and discuss the use of Zieta! and L.O.eKa. Zieta! is a tool developed for professionals working with young infants or children with VI or MDVI which have a developmental age up to 6 to 8 months. This tool allows to observe and map out the different aspects of visual functions and primary visual processing like visual awareness, fixation, visual tracking, eye contact and initial eye-hand coordination (reaching - grabbing). L.O.eKa is used to prepare toddlers and young children with VI or MDVI for optotype-testing (Lea TM, Kay TM). It consists of 3D and 2d materials and a manual. In addition, a leaflet useful as guide for early detection and recognition of distress signals of visual problems in babies and young toddlers (0 -2yrs) will be presented.

**Room 2: Recognizing symptoms of posterior cortical atrophy**

- **Recognizing symptoms of posterior cortical atrophy**

*Greetje Koevoets, Anne Kuiper  
Bartimeus institute for the visually impaired, The Netherlands*

Purpose: In contrast to memory dysfunction as first symptom of classical Alzheimer's dementia, Posterior Cortical Atrophy (PCA), a form of early onset Alzheimer's dementia is characterized by visuospatial dysfunctions. Patients may have trouble recognizing objects, with depth perception and colour vision. They may have symptoms such as double vision and eye focusing problems. The 'tragedy' of PCA is that vision problems are rarely associated with brain disorders such as dementia. The disease begins insidiously at relatively young age. People can therefore linger for years in the circuit of ophthalmologists not getting the right care. PCA appears to account for up to eight percent of all dementia patients but is only recently described and the first symptoms are indistinct. Therefore it is not easy for orthoptists to recognize when they should refer a patient to a specialist for further diagnostics. Bartiméus works together with the Alzheimer's Center of the VU University Medical Center Amsterdam (VUmc) aiming the promotion of early diagnosis and to improve the support of people with PCA, their family and caregivers. Methods: Neuropsychological examination and blood test may give clues for PCA. The only way to determine PCA with certainty is by means of an MRI scan which show degeneration of the posterior part of the visual cortex. In other forms of Alzheimer's disease is the atrophy more head-on in the hippocampus which is important for the memory functions. Clients visit the VUmc for diagnosis and refers to Bartiméus for advice. Results: A man continued to complain about double vision despite the use of prisms prescribed by his ophthalmologist. Only after five years he was referred to the VUmc. Thanks to the collaboration with the VUmc, Bartiméus

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was able to help him with practical advise such as always placing the TV remote in the same place and the same orientation because he does not recognize the remote when it is on the head. We also advised his wife to organize cabinets simpler and to make use of a contrast colour for his personal cabinet. Conclusions: Unfortunately, PCA has a highly progressive development. This means that early diagnosis is important. In addition to practical advice to support daily functioning, patients and their caregivers benefit greatly from understanding of the disease and the expected problems.

### Room 3: **WerkWijzer A methodology for supporting people with visual impairment in combination with an autism spectrum disorder whether there is also another constraint such as intellectual disability**

- **WerkWijzer A methodology for supporting people with visual impairment in combination with an autism spectrum disorder (ASS) whether there also another constraint such as intellectual disability**

*Anja Pouwels<sup>2</sup>, Ellie Verstappen<sup>1</sup>*

<sup>1</sup> Bartiméus, Institute for Health Care, department for autism and visual impairment, Zeist, Netherlands; <sup>2</sup> Bartiméus, Institute for Health Care, department for visual and mentally impairment, Doorn, Netherlands

WerkWijzer A methodology for supporting people with visual impairment in combination with an autism spectrum disorder (ASS) whether there also another constraint such as intellectual disability.

Helping people with both visual impairments and ASS in developing requires a different approach than the ones used for people with either visual impairments or ASS. Someone with a visual impairment cannot (completely) trust the visual information she/he receives. Verbal clarification can alleviate this problem. Someone with ASS on the other hand needs visual and clear information to comprehend what is going on in their environment. Verbal clarification is volatile and abstract and attribution of meaning is often difficult.

WerkWijzer is a methodology based on elaborate research aimed at completing the personal description. For example, sensory information processing, tactile functioning, cognitive possibilities, social-emotional aspects, level of sense-making and communication are taken into account. To make the environment understandable and safe, it has to be structured and made 'clear', in a way that takes both limitations into account. Structuring comprises spatial surroundings, time, activities and approach/treatment. By working this way somebody suffering from ViB-ASS can understand and tolerate the world. The methodology has been implemented succesfully within Bartimeus. Quality of life for residents has thereby been improved. The methodology is Evidence Based.

### Room 4: **Reflections on how to foster better 'Quality of life' for the person with Congenital Deaf Blindness**

- **Reflections on how to foster better 'Quality of life' for the person with Congenital Deaf Blindness**

*Vanthuyn Veerle<sup>1</sup>, Daelman Marlene<sup>2,3</sup>*

<sup>1</sup> Care director/ remedial educationalist Spermalie, Brugge, Belgium; <sup>2</sup> Member of the Deafblind International Working group on communication; <sup>3</sup> Guest lector at the International Master on Communication and (Congenital) Deaf blindness University of Groningen, the Netherlands

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Thanks to increasingly better video and computer technology, new forms in which persons with CDB participate in communication were witnessed. The concepts that explain what we now can see happening through micro-videoanalyses derive from dialogical theories. Dialogicality emphasizes or the other directedness of the human mind. Dialogical perspectives foster real and sustained communicative practices with persons with CDB as active and co-creative partners. In a collaborative/interactive workshop we would like to micro video analyse and to illustrate different 3<sup>rd</sup> voice perspectives with their influences on the quality of the development (agency, self, intersubjectivity) and on the fundamental change in the personal voice of the person with CDB

### Room 5: **Daisy player: The bigger picture**

- **Daisy player: The bigger picture**

*Tine Delporte, Piet Verstraete, Astrid Dekoe and Tina Mutschinski  
Begeleidingscentrum Spermalie, Department of children with a visual impairment, Bruges,  
Belgium*

It's been known for a long time that a Daisy Player can be very useful in a group of visually limited people: listening to daisy books, digital magazines, complete courses... In this next session we try to highlight device in a different way and to expand the classical use of a Daisy Player.

The way we approach a Daisy Player is especially meant for young children and/or children with a multiple visual limitation. For this target group, the Daisy Player can be a nice step to learning to work with other multimedia devices (such as brailleleesregel) later on, to absorb the overload of incentives during the day, it can be a fun communication system in the context of the child...

The possibilities of the Daisy Player are looked closer at, and there will be a link with the practical use in daily life. Both pros and cons will be highlighted. It's a very fun way to trigger this target group!

### Room 6: **Independence through quality braille training**

- **Independence through quality braille training**

*John Heilbrunn  
Danish Association of the Blind, Taastrup, Denmark*

Braille as the genuine font for blind persons is the prerequisite for communication, reading and writing and to ensure to become and remain literate. It is essential to acquire proficient skills at an early age and improve the ability to use braille in all practical, social and academic scenarios. Therefore, it is necessary that a blind child from the very early childhood and onwards is challenged by - and confronted with - well trained and skilled professionals and relevant materials in quality braille. The Danish Association of the Blind runs the two-year-project, financed by EBU, in cooperation with ICEVI - Europe. The target group is persons under the age of 18 years, who do not have a severe additional disability apart from the visual impairment and the project therefore will focus on various proper solutions for children and young person's use of braille. The main focus is on screening and analyzing the use and availability of braille, the impact of modern technology, the best practices and materials in training braille and the availability of trained and skilled educators in braille. Phase one collects the information from the Nordic countries, and phase two will widespread the screening to other European countries. The result of the project will bring up the focal

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points of observations registered in the different countries. The workshop offers a possibility to present the background of the project and the gathered results so far as well as a fruitful platform for discussions and exchange of views when promoting braille.

### Room 7: **Once up on a time ...ME and THE OTHERS!**

- **Once up on a time ...ME and THE OTHERS!**

*Paques S, Boudru J, Clark W, Violaine van Cutsem*

*Triangle-Bruxelles, service d'aide précoce et d'accompagnement, Belgium*

This workshop will be based on an experiment we will carry out from January 2017 to April 2017 with a serie of children (in school inclusion process) followed by our service. About 8 to 12 years old children will be involved in this experiment. Our starting point is that visual impairment can undermine the feelings of self-confidence and self-esteem of children included in ordinary class-rooms. This can lead to behavioral difficulties ranging from inhibition to provocative behaviors. We hypothesize that talking with children about the vision they have regarding their impairment, their abilities and the potential effects this can have on their social interaction, could improve their self-image and improve their empowerment. For this experiment, we plan to build three new tools (based on an analysis of the literature and the search for existing grids and tools).

1. A grid of self-evaluation carried out by the child on his abilities (cognitive, sensory, motor ...). This grid will also be completed by the parents and the teacher of the child.
2. A symbolic tool (play mobile) to discuss with the child about his self-image, his self-esteem.
3. An adapted sociogram, allowing discussion with the child about his or her belongings, plans and desire for social inclusion.

We plan 4 meetings with the child. The last meeting will take the form of a discussion about what he wants for himself and his environment, in order to make things evolve. Please note that this experiment will be fully included into the accompanying approach, which will therefore extend over time. We would also like to test whether a systematization of this approach can add value to our work with children. At the workshop, we will present the results and evaluation of this process as well as the tools that will have been developed in this scope.

Friday 7/07/2017

9:00 – 10:00 Keynote lecture by

**Mr. Peter Verstraten, Programme Manager Knowledge & Expertise Robert Coppes Foundation**



Peter Verstraten (1957) is programme manager Expertise, Innovation & Knowledge at the Robert Coppes Stichting in Vught, the Netherlands. He graduated in Psychogerontology at the Radboud University Nijmegen in 1984. Until 1988 he worked at that same university as a researcher in the development and testing of a Ward Behaviour Scale (GIP) concerning behaviour of ageing people in nursing homes. From 1987 till 1991 he has been a nursing home psychologist in two nursing homes, being involved in psychological assessment and treatment. Being a licensed healthcare psychologist he also had his own psychology practice from 1996 till 2000. Next to these activities he has been working in the field of visual impairment since 1988 at Royal Dutch Visio and its merger predecessors (Theofaan and Sensis). Until 2008 as a psychologist and rehabilitation coordinator of adult (incl. older) blind and partially sighted people, as researcher and teacher/coach. From 2008 till 2012 he was senior project manager and science coordinator, occupied with management of (mainly European) projects, knowledge management, coordination of scientific projects and coaching of colleagues. Topics of special interest are rehabilitation services for visually impaired ageing people in the Netherlands, loneliness among visually impaired people, social support and a network training course, the Charles Bonnet syndrome, acquired brain injury and ICF (International Classification of Functioning, Disability and Health). Internationally he is involved in the ENVITER network, he is appointed expert member of WBU and EBU working groups on ageing people, is co-organizer of the biannual European Conferences on Psychology and Visual Impairment on behalf of ICEVI and member of the organising committee of the world conference VISION 2017. He is also a member of the steering group of the Dutch scientific programmes InSight (InZicht / ZonMw) and the Programmaraad Visueel. From 2012 till 2016 Peter was director of Knowledge, Expertise & Innovation at Royal Dutch Visio. Since June 2016 he is programme manager at the Robert Coppes Stichting (RCS). This includes knowledge management and projects in the field of research & development. In this position he is responsible for RCS's strategic knowledge agenda and international activities.

### 30 years of care and rehabilitation of visually impaired adults and older people

From different perspectives - Dutch, European and global - an overview is presented of observed developments through the last three decades of rehabilitation services for visually impaired adults and mainly older people.

In the Dutch situation there is a focus on quality of life, working from a holistic viewpoint, including the use of the International Classification of Functioning, Disability and Health (ICF) and a history that shows different professional waves.

After a period of broadening the scope of service providers to include all possible visual impairment challenges, there is a recent focus on more complexity and multi-morbidity as an important assignment for Dutch service providers.

On a European level differences are observed in financial opportunities for rehabilitation services development and accessibility, different demographic developments, different rules and regulations, yet a number of networks show how cooperation leads to increased participation of visually impaired adults and older people. One of the examples is the successful VISAL project.

The work of the World Blind Union network on visually impaired older people puts the European situation of ageing and sight loss in its own perspective.

## Poster Presentations

### **P01 Counseling children and adolescents with visual impairment and multiple problems: topics, methods, and adjustments**

*Sonia Meys*

*Centrum Ganspoel vzw, Huldenberg, Belgium*

People with multiple handicaps are particularly vulnerable for emotional and psychological problems. These problems are especially apparent in young children and adolescents who have to cope with several loss-experiences due to their handicap(s). These experiences can have important effects on their self-esteem, the way they grow up, and the choices they have to make for their future. We will discuss how we can support children and adolescents, who have extra needs, in their growth to adulthood. Furthermore, we will demonstrate how centrum Ganspoel tries to offer children, adolescents, and their families, support aside from educational activities, therapy and guidance in a residential group. Within individual counseling, as part of a care plan, we offer children and adolescents extra guidance to discover their own strengths and determine which individuals are valuable within their network support group. This individual counseling method is based on principles such as holding, containment, mutual trust, and effective communication with others involved. Finally, we propose that this individual counseling method can be integrated with commonly used methods, such as creative means, role play, genogram, line of life, board games and stories. More specifically, we believe the latter have to be adjusted, allowing children and adolescents with visual impairment and multiple problems to use the proposed means to help them express themselves.

### **P02 Tactual Profile, MDVI**

*Ans Withagen, Anneke Blok, Wieneke Huls, Ineke Jacobs, Marij de Lange, Nanouk Scheeningand Miranda Zwijgers*

*Royal Dutch Visio, centre for partially sighted and blind persons, The Netherlands*

The MDVI Tactual Profile can be used for persons with a cognitive development, comparable with the developmental age of 0-6 years. The MDVI version is linked to the original Tactual Profile, which was developed for children, who have a severe visual impairment, from birth up to 16 years of age. The instrument is outlined as a 'structured observation'. The steps in the tactual development are more refined in the MDVI version. The instruction is less verbal or non-verbal and the persons are evoked more explicitly to show tactual responses to the items which are presented.

Domains of tactual functioning which are observed:

- Tactual Sensory Functioning: Noticing, Body awareness, Touch sensitivity, Proprioception
- Tactual Motor Functioning: Tactual exploration, Two-handedness
- Tactual Perceptual Functioning: Recognition, Part-whole relationships, Tactile-spatial perception, Figure-ground perception, Tactual language, Touch strategy

The focus of the items is less on perceptual functioning and more on sensory functioning (in comparison to Tactual Profile). The items of Tactual Profile for MDVI will give an answer to questions like: How is the touch sensitivity of this person? Does the person like to perform a tactual task? Is the person curious? Is this person able to perform a combined task? How long will it take for a person to react to an offered task and what is the impact of cluttering stimuli? Tactual Profile MDVI also offers an overview of Factors, which influence tactual perception and functioning. The survey provides a so-called tactual conceptual framework. The results of the observation with Tactual Profile MDVI and conclusions from the survey 'Factors of Influence on tactual functioning' will be the starting point for stimulation and training of tactual functioning.

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**P03 Visually impaired people in aruba: a shift in networks, identity and respect in everyday life in a small-scale community**

*Mieke de Droog*

*University of Aruba, Department of Organization, Governance and Management, Oranjestad, Aruba*

This interpretive study elucidates the full complexity of the condition of a visual impairment; it is layered and varies in dynamics for each participant and situation. In total, 32 respondents aged fifteen years and older were interviewed in-depth. The focus was on their day-to-day constructions of reality, taking into account both their individual life stories and the specific cultural and historical context. Striking in this Aruban study is the shift in networks that are relevant in these day-to-day negotiations involved with losing one's eyesight and trying to deal with this situation on a day-to-day basis. They entail a change in the balance between reciprocity and dependence, with consequences for the experienced identity, (self-) respect and social participation of the respondents. The networking that can be observed not only includes an international mobility of participants for medical reasons, but also some characteristic fluctuations in the networks involving practical and emotional support. On the long run, participants can be exposed to isolation and impoverished social standing. Important factors affecting their experiences are the quality of the relationship with others and agencies. Key incidents and 'leverage figures' play an important role in the sense making process of the visually impaired. The study also highlights the ability of the participants themselves to learn how to stand up for their limitations and open up to others and/or new experiences. All three are essential to the experience of the fluxes in their network, identity and (self) respect, with consequences for interpersonal relations and social inclusion.

**P04 Aetiologies of cerebral visual impairment in mainstream secondary education**

*Katrien Keppens<sup>1</sup>, Rita Patteeuw<sup>2</sup>, Anne-Leen Vandamme<sup>1</sup> and Mieke De Pourcq<sup>1</sup>*

*1 Spermalie, vzw De Kade, multidisciplinary team visual impairment, Bruges, Belgium; 2 Spermalie, vzw De Kade, school intervention team, Bruges, Belgium*

The aetiology of brain dysfunction in children with CVI (cerebral visual impairment) in mainstream secondary education is studied retrospectively. 25 Children are included, 9 male/16 female. Mean age is 15 years 7 months. The visual acuity of the best eye is 10/10 in 10 children, the lowest acuity measured is 1.6/10 and mean visual acuity is 7,4/10. 28% had another ophtalmological diagnosis (7/25). IQ was good: total mean 90, from 64 to 127. 68% suffered from comorbidity. 64% have perinatal problems (16/25). 9 are born premature (36%). The lowest gestational age is 27/40, with a birth weight of 1000 g. In 4 term children problems during delivery are reported. 36% have no history of any perinatal problem (9/25). The aetiologies in these children are tumour, meningitis, head injury, hypoxia at later age, turner syndrome, an arterio-vascular malformation, cardiopathy with preoperative ischemic episode. We included two children with a genetic abnormality, a girl with Turner syndrome and a girl with Sturge Weber Syndrome. The CVI is caused by an arterio-venous malformation in the latter child. Children with CVI in mainstream education have less genetic abnormalities. Other aetiologies occur in the same percentage as in other studies. They have the same percentage of comorbidity, but less severe comorbidity. They have a better visual acuity. They compensate due to good IQ. In the future we will study the children with CVI who follow special education in order to compare whether they have different aetiologies then those in mainstream education.

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### **P05 Motor development and (early) intervention in blind babies, toddlers and children**

*Lieve Dewerchin and Katrien Keppens  
Centre of Expertise Spermalie, De Kade Bruges, Belgium*

Visual impairment interferes with gross and fine motor development in children. This situation creates a paradox: on one hand, the motor development is at risk. On the other hand, a blind individual is in need of optimal motion possibilities in order to discover his/her world through moving and touching and to achieve a maximum of self-reliance and independence allowing participation in daily life. Support and stimulation of blind children is provided by an early intervention team Accent. Providing targeted advice to these home caregivers is based on regular assessment of the child by our multidisciplinary team. A physiotherapist is part of this team. To map the motion possibilities, progress and problems of the blind child, the physiotherapist relies on specific tests embedded in a neuro-developmental approach (Bobath) and on personal experience. We focus especially on self-initiated mobility, posture, locomotion and constructive play. We provide an overview of the most important findings concerning the achievement of the gross motor milestones for blind babies and toddlers, and concerning the general dynamic coordination of older blind children: gross motor milestones appear to be slightly delayed during the first 6 months after birth. This delay becomes more pronounced thereafter. We list specific motor difficulties detected, for which special attention and stimulation is required by the caregiver. Stimulation and close monitoring of motor development of blind children is essential. A specific yet varied motor education program for the individual child, initiated as early as possible, is necessary in order to maximize its motion possibilities.

### **P06 Problems in orientation and mobility in children with cerebral visual impairment**

*Emma Van Damme<sup>1</sup>, Mieke De Pourcq<sup>2</sup> and Katrien Keppens<sup>2</sup>  
<sup>1</sup> Spermalie, vzw De Kade, home intervention team Accent, Bruges, Belgium; <sup>2</sup> Spermalie, vzw De Kade, multidisciplinary team visual impairment, Bruges, Belgium*

Children with CVI (cerebral visual impairment) have difficulties in orientation and mobility. Better orientation and mobility helps those children to grow up more independently. We look at different age groups, starting from babies unto adolescents. The difficulties these children report differ from age to age. For every problem, we look for an appropriate answer. They always have a major impact on the quality of life of these children. This research focuses on children without major motor comorbidity. Some children with CVI have cerebral palsy (CP). Children with CP are excluded, since their problems in mobility are linked to both, CP and CVI. Babies fear unknown, busy environment. They tend to move less. Their motor development is delayed as seen in blind children (cfr poster). Toddlers are afraid on the playground. In primary school, children have difficulties finding their way to the classroom. Going to secondary school gives most problems. The schools are larger, children have to switch from one classrooms to another more often. Social pressure of the peer group becomes harder. We look for tips and tricks based on our experience and knowledge on mobility and orientation in blind and severely visually impaired children. In this session we give an overview of the typical problems in orientation and mobility in children with CVI and we look for an answer to these problems. Sometimes the answer is a compensation strategy, sometimes we teach these children to focus on special items, sometimes we try to translate the problem to a model, sometimes electronic devices are used for compensation.

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**P07 Rising prevalence of cerebral visual impairment in mainstream secondary education calls for a different approach**

*Mieke De Pourcq, Anne-Leen Vandamme, Emma Vandamme, Rita Patteeuw and Katrien Keppens  
Spermalie, vzw De Kade, Bruges, Belgium*

Prevalence data indicate that CVI (Cerebral Visual Impairment) now is the leading cause of visual impairment in children. Better ability of the school support teams in dealing with CVI-related problems ensure that more children remain in mainstream education. Whereas better general awareness for visual dysfunction leads to more referrals to CVI-clinics. Therefore we notice an increasing population of children with CVI in main stream education over the last ten years. The presence of students with CVI nearing or in secondary education calls for a customized, specific, often multidisciplinary approach. The aim of this study is to create better support of CVI students in main stream secondary education. For better understanding of the needs of CVI students, they are referred to our multidisciplinary team. The data of these investigations are collected in a retrospective study. In 2006 only 2 students with CVI attended mainstream secondary education and were supported by home intervention team Accent and/or school interventio team Spermalie. In 2016 this amount increased to 18 students with CVI. We will give a detailed overview of their needs and concerns and of the typical problems they are confronted with. We will also provide information about the current approach and support. Students with CVI in main stream secondary schools need a different approach and support than children with CVI in primary schools.

**P08 Nano's Mischief**

*Romana Chalupová and David Najbrt  
Non profit organizacion ZEMĚ, z.s., Ostrava, Czech Republic*

Abstract not received in due time

**P09 Bookbox: a Story with 3D printed Tactile Plates**

*Griet Pattyn<sup>1</sup>, Mieke Vandorpe<sup>1</sup> and Sofie De Leener<sup>2</sup>  
<sup>1</sup> Mobile Support Service Accent- Center of Expertise Spermalie, Brugge, Belgium; <sup>2</sup> Research and Design Oostende, Belgium*

Bookbox offers visually impaired children the chance to learn more about their local environment in a relaxing way. The story contains elements that the children know in their daily life. It is an opportunity for children to experience the story which is enhanced through tactile input. The 3D printed plates give the opportunity to feel elements of the story that are hard to represent on any other tactile way, like for example the 3D version of the fly. The box contains 5 plates and the story in a bookform. The plates can be placed in the cover of the box to have a good base. The child can also listen through an audio file on the accessory USB stick or the Daisy-cd with the story in 5 chapters. It makes the story a good activity to do independently. The bookbox is the result of a coöperation between Sofie De Leener and Mobile Support Service Accent.

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### **P10 Families with a visual impaired child: integrating visual stimulation into daily life.**

*Katrien Perneeel<sup>2</sup>, Mieke Vandorpe<sup>2</sup>, Bastiaan Thijs<sup>1</sup> and Patricia Delbeke<sup>1</sup>*

*<sup>1</sup>Product development & innovation University Antwerpen; <sup>2</sup>Mobile Support service Accent-Center of Expertise Spermalie/ de Kade, Brugge, Belgium*

It's important to make children with a delayed visual maturation and children with severe/multiple problems aware of the visual world around them. In case the visual process doesn't get started, intense visual stimulation is an important stage in supporting and helping children and their families at home. The black box (BOPL-box) is a primary method for visual stimulation. Fluorescent visual stimuli, powered by blacklight, can be showed in isolation. In this way, there's no interruption of other visual effects in the surroundings of the person. The main goal is to make parents integrate visual stimulation into the daily life of their child. So, we need a portable system that can be easily used by families. Originally, the black box was developed by Paul Looijenstein and Ben Vanoverbeek, our colleagues of Holland in the late 80's. Ever since, the product hadn't been renewed. In order to integrate the black box into everyday life, adapting it to a modern, contemporary, accessible and attractive version was our number one condition. This project was created through a collaboration between Mobile Support Service Accent and the University of Antwerpen, department Product Development.

### **P11 Care Binder for Parents regarding (social) Administration**

*Kim Maesele, Stefanie Maeghe and Myriam Callemeyn*

*Mobile Support Service Accent- Center of Expertise Spermalie/ de Kade, Bruges, Belgium*

Often we hear parents complaining regarding the stack of documents they collect over the years when they have a child with a visual or multiple impairment: medical records, social administration. And the number of different services that they have to deal with. Some parents don't know what they need to keep up or can throw away, can't understand the text, are poorly organized and can't find the right document when they need it. We want to support parents make their way through the different (social) services, but also help to clear the paperwork for their child so they don't lose important documents. This will save a lot of time for the parents and (social) caregivers.

Therefore we propose parents a care binder, an organizing tool with formats with the name and symbol of the various services they get to deal with. This should enable them to keep track of important information about their child's health and care in a central place. They can also find a folder with an overview of the benefits where their child may be entitled to receive and the social services that can help giving further information of social allowances.

### **P12 'Regarding the future'. Inspirations for and by people with a visual impairment.**

*Debbie Claus<sup>1</sup>, Emma Van Damme<sup>1</sup>, Eva De Stecker<sup>2</sup>, Marieke Weckhuyzen<sup>3</sup>, Sonia Meys<sup>4</sup>, Lorenzo Billiet<sup>5</sup>, Sarah De Ruyck<sup>5</sup> and Heidi De Knudt<sup>6</sup>*

*<sup>1</sup>Mobile Support Service Accent-Center of Expertise Spermalie/ de Kade, Brugge, Belgium;*

*<sup>2</sup>Center of Expertise Spermalie/ de Kade, Brugge, Belgium; <sup>3</sup>Rehabilitation Center De*

*Markgrave, Antwerpen, Belgium; <sup>4</sup>Center Ganspoel, Huldenberg, Belgium; <sup>5</sup>Center of*

*Expertise Blindenzorg Licht en Liefde, Varsenare, Belgium; <sup>6</sup>School for Adults, Sint Rafaël,*

*Blindenzorg Licht en Liefde, Gent, Belgium; <sup>7</sup>Royal Institute Woluwe, Belgium*

We want to present our book 'Regarding the Future. Inspirations for and by people with a visual impairment'. This book is the result of interviewing 17 people with a visual impairment, mostly young adults. We asked them how they made the transition from youngster with a visual impairment to adult, on the domains of studies, work and free time. How did they make their choices? Every one of these interviewed people had obstacles on their way to build the life they want and had to be very creative to search for opportunities and chances. The stories in the book can be a great inspiration for children and youngsters with a visual impairment who are trying to make their way in life. This book

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hopes to show them that they have a lot of qualities and strengths and that they often can follow their dreams.

### **P13 The effects of exercise training programs in physical condition and mood disorders of visually impaired elderly people. A pilot study**

*Maria Tsekoura<sup>1</sup>, E. Billis<sup>1</sup>, E. Tsepsis<sup>1</sup>, P. Leatsakou<sup>2</sup>*

*<sup>1</sup>Technological Institute of Western Greece, School of Health and Welfare, Department of Physical Therapy, Aigio, Greece; <sup>2</sup>Center for Education & Rehabilitation for the Blind, Hellenic Ministry of Labour, Social Insurance & Social Solidarity, Athens Greece*

**Background.** Sight impairment increases with age. In general elderly with visual impairment have a sedentary lifestyle, which causes dependency and social isolation and eventually a decrease in quality of life. Regular physical exercise is reported to be associated with reduced symptoms of depression and better physical condition. However, the extent to which exercise training may reduce depressive symptoms and mobility in visually impaired elderly people has not been systematically evaluated.

**Objective.** The aim of this study was to investigate the effects of exercise training in visually impaired elderly people living in Greece. **Methods.** A physical training program with a sample of 6 participants was carried out in Athens, the capital of Greece. Visually impaired men and women (age, > or = 60 years) were assigned to an exercise program for 10 weeks. The program consisted of warm-up exercises, stretching, strength and balance exercises, being performed 2 times per week. Measures included a self-administered questionnaire about demographics and medical history, the geriatric depression scale (GDS-15), one test for strength (chair stand test), and one test for walking speed (4 meter test). **Results.** Mean age of the participants was 72,5 (SD=4.59). Four (4) elderly people were identified as potentially depressed (GDS-15 score <4). Analysis consisted of descriptive statistics. People with GDS-15 scores above 4 had lower levels of physical function. Significant summary effect sizes (ES) were found for strength (ES: 1,73; 95% CI 0,52 to 0,96), speed (ES: 0,74 95% CI 1,31 to 2,14), balance (ES: 3,83; 95% CI 0,52 to 0,96) and 4 in depression (ES: 1,16; 95% CI 0,73 to 1, 59). **Conclusions.** According to this study moderate and regular physical exercises could reduce depression and physical problems. Participation in exercise programs may allow visually impaired elderly adults to live with independent mobility, and better self-confidence and self-esteem.

### **P14 New techniques and methods in working with multidisabled visually impaired students at "Prof. Dr. Ivan Shishmanov" Special School for Visually Impaired Students**

*Raeva Yana, Petkova Julieta.*

*Prof. Dr. Ivan Shishmanov Special School for Visually Impaired Students, Varna, Bulgaria*

**Objectives:** To popularize new techniques and methods in education at the school **Materials and methods:** Paper and Power point presentation At "Prof. Dr. Ivan Shishmanov" Special School for Visually Impaired Students in Varna, Bulgaria, 151 visually impaired students from the whole country receive educational services. The launched in 1989 Program for multi disabled visually impaired students, now enrolls 124 students whose training is carried out in accordance with the requirements of the Ministry of Education and Science in three different levels: Primary, Pre-secondary and Secondary. A team of different specialists carries out the initial assessment and individual program for each child, intermediate assessment and final assessment of student's achievements.

Five years ago was created a parents group for mutual psychological assistance and support, aiming to create opportunity for sharing personal experience, to find solutions for particular problems and to get real help. MDVI students have the opportunity to participate in adaptive sports activities like New Age Curling and Boccia, which brings them a lot of emotion, confidence and socialization. Vocational therapy in the Ceramic and Weaving workshops involves students, including the ones with physical problems, and develops a lot of skills introducing different techniques. This year a new sand therapy was initiated. Annually are organized seminars for parents, teachers and teachers exchange with colleagues from other countries. Teachers from our school participated European and world conferences to exchange innovative methods and techniques in education of visually impaired

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students. Conclusion: Implementing new techniques and methods improves students' personal achievements and development.

### **P15 The benefits of specialized care for persons with congenital dual sensory loss**

*Wanda Frederiks and Caro Verlouw - Mooij  
Bartiméus, Expertisecenter Deafblindness, Doorn, the Netherlands*

As a consultant, my daily job is to visit organizations for persons with intellectual disabilities and give advice on care, related to visual functioning. One of the persons I met was Gisela: a deaf, middle-aged woman with a severe intellectual disability. Gisela experienced lots of difficulties and her caregivers worried about her well-being. Through our consultancy, a vision loss was diagnosed: something that has not been noticed before. When her life-story was studied, it became apparent that Gisela's mother had been infected with Rubella during pregnancy. The congenital rubella syndrome explained the experienced challenges in care, and it was decided to move Gisela to a group home for persons with congenital deafblindness at Bartiméus. These houses offer optimal care settings due to specialized education and knowledge of the caregivers. These skills bring excellent opportunities for interaction and communication, and also create houses that have good facilities at the level of acoustics, lighting and orientation support. The current workshop will describe Gisela's move and the opportunities it gave her. Gisela was always known as a person who did not like to be touched, but now she requests proximity. She also was very passive in her former house, while she now likes to watch the activities of the caregivers. She changed from a person who hardly smiled to a happy woman. The goal of this workshop is to point to the possible benefits of houses for persons with sensory disabilities, using Gisela's story as an illustrative base.

### **P17 CVI camp for children with cvi, from 8 to 12 years.**

*Nicole Scheirens and Elke Spans  
Early support team Center Ganspoel, Bachelor orthopedagogic sciences*

2Early support team Center Ganspoel, Master pedagogic and orthopedagogic sciences  
By this poster we want to present the cvi camp organized for children with cvi, from 8 to 12 years. Children with CVI can come to school in our centre (Centrum Ganspoel) and stay in boarding school during the week. Lots of parents prefer to keep their child at home and choose a school closer to their home, but less adapted to the visual problems of their child. Our ambulatory services support families and schools from these children regarding their visual problems. Working with the families of school-aged children with CVI, a special need, urged: the need for adapted care during school holidays. Schoolmates can participate easily to all kinds of youthcamps and sportactivities. For children with CVI these camps and activities are too crowded, too difficult, too tiring because the visual problems are not taken into account. Above that, parents of these children, have a big job to take care of their child every day and may need 'a break' as a 'caregiver of a child with CVI'. For the children who come to our camp, it is also a unique opportunity to meet other children with CVI. Above that, the campactivities like meals, washing- and dressingmoments, campexcursions are used to learn them how to be more independent (example how to find your way in a supermarket). The adjustments for this camp are all important for children with CVI and we will show examples on the poster with these pictures: 1. picture : the group of children Maximum 9 children who all have CVI diagnosed. We choose to have small groups, because it is usually the crowd and variety that are a problem during other "regular" camps. 2. picture : of the dresser The accommodation is adapted: for example: an organized dresser with marks. 3. Picture : Meals nHow we set plates and cutlery. 4. Picture : excursion outdoors: we go out with 1 guiding person for two or maximum three children. We all wear fluo marked clothes 5. Picture : game in the parc Sports and recreational activities are also adjusted where possible.

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### **P19 Visual demands of augmentative and alternative communication**

*Hogrebe, Friederike*

*ProVisioN, TU Dortmund University, Dortmund, Germany*

Augmentative and alternative communication (AAC) allows people with limited possibilities of common communication modes (e.g. oral language) to express their needs, wishes and feeling and participate in interpersonal interactions (Beukelman and Mirenda 2013). AAC modes of communication can be diverse with a main emphasis on visual-based graphic systems via symbols and photographs. Besides cognitive requirements like decoding and the identifying of meaning, the users of AAC are faced with visual demands when using symbols and photographs for communication. In most cases neither the demands nor the visual capacities of the users are taken into account in the process of choosing an adequate device (Brown et al., 2015; Light and McNaughton, 2014). This study aims to analyse which visual demands are included in devices for augmentative and alternative communication. For the purpose of analysis a systematic literature review was conducted of studies that look at different features of graphic design (colour, form, complexity, size, number, location etc.). This systematic analysis leads to the development of implications concerning the design of devices for AAC. The implications derived from the analysis of literature are compared with the design of existing devices. The results of the analysis may help to indicate which visual demands are included in devices of AAC to consider them during the process of choosing an adequate device of AAC.

### **P20 Dance Therapy Session as Part of Universal Design for Learning - "Body in Motion"**

*Ivan Macokatic*

*Day Care Center Mali Dom – Zagreb, Croatia*

Background: This poster will show one dance therapy session "Body in motion" using principles of Universal Design for learning (UDL). UDL is a research-based set of principles to guide the design of learning environments that are accessible and effective for all. UDL informs all of our work in educational research and development, capacity building, and professional learning. Implementation of Universal Design for learning went through artistic media as music art, dance and movement.

Objectives: To create safe space in order to encourage self expression concerning the given content also learning to handle artistic elements, movement and movement modes of expression also improving communication throughout artistic content, raising awareness of self body and environment Materials and Methods: The work was carried out with 6 children with visual impairment and multiple disabilities of different age from 4 to 10. Program was carried by special education teachers who are specialized in specific art therapy fields and dancers in a cooperation with Dance school. Dancers are skilled in non verbal communication and that they can support authentic expression easily with children. To follow the process of fluent and natural dialogues we take turns in conducting the sessions. As a basis for creation supported environmental space four basic elements– Fire, Water, Earth and Air were chosen as something that is natural and can be connected to everyday life. In the dance session we used Laban/Bartenieff principles and somatic studies that is bodily based experimental knowledge and practice. Closing session end always with the same music no matter the content. Results and conclusion: Result of this session is to trace the memories of the experience in the story book as traced experience and we will constantly re-evoked that traced experience which then improves memory, communication, stored experience broadening the vocabulary and above all self concept and emotional well being.

### **P21 "Challenges relating to blindness and low vision- teaching first language"**

*Schiopu M. Nora-Marcia*

*Scoala pentru deficiente de vedere, department Languages, Bucharest, Romania*

Material and methods: The traditional barriers to teaching first language to blind students may relate to the use of specific material resources which are expensive and sometimes not enough: materials in

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Braille: hand-books, curriculum books for exams, story books for children adapted for blind.

The Braille procurement is obligatory in order to avoid gaps in study of a blind student in mainstream education. The Braille books are expensive, take up much room and degraded much faster than the regular books, so the number of books in Braille in Resource Centres /Special Schools/ Public Schools, etc is limited for this matter. The literature for children and adolescents is renewed from year to year with other titles to which blind students have almost no access, because the transcription in Braille take time, the volume of information is big and discouraging. The copyright could be also an issue for some countries. If the requested book is not available in Braille, a solution is to replace it by an audio-book or to use special technology, like Robobralle (or other program) and transform the original text in Braille using an e-mail address. For partially-sighted students the adapted materials are very important; large print documents, screen readers, audio-books,etc. The Communication is perhaps the most important way for the blind people/ partially sighted person to interact with others, to know the world, express their opinions, so communication and vocabulary development are essential. Sometime a poor vocabulary could be an issue. Some words may seem familiar to blind student, but their meaning and the context are not. It is recommended in this regard: vocabulary exercises: exercises that require solving synonyms, antonyms, homonyms, the meaning of words in certain contexts, derived words exercises on compound words (depends on complexity of a language), spelling exercises. The teacher must always ensure that blind student knows how to use the word in context. Ask to a blind student to compose sentences with a new word, rather than explain him only the meaning from dictionary. To avoid the monotonous speech (when producing an essay, for example) the exercises that develop creativity and spontaneity in communication are highly recommended. In order to address the needs of the blind student who learn in special education or in the mainstream education system, the solutions bellow could be useful:

- Creating adapted materials, such as Braille documents (with raised-out tops), or Termoform documents.
- Creating large print
- Use 3D materials or real object in order to understand a concept/ a literary description,etc
- Creating an on-line library with free access for blind.
- Replace the images from a text with description or deleted from the texts
- Enlarge the photos if is possible or relevant
- Use life situation in order to develop the communication
- Dramatise the stories; role play.
- Use notebook adapted to partially sighted
- Repeating the information as many times as it takes to students to properly understand;
- Help students to acquire life skills, like being able to organize their school materials on their own. Usually, the blind students have to keep their notes in a file; sometimes the sheer volume of Braille papers can be very discouraging. So, each file (the equivalent of the notebooks in mainstream education) must therefore have a sticker with the name of the subject; also, at the end of the class, the students have to pierce the sheet and place it in the file. When the paper come from all direction, it's impossible to find thinks. Provide to blind student(next to his desk) a box in which he can keeps the current volume/ book.

It would be easier if the blind student had permanent access to a laptop adapted.

- Evaluate the student speed in reading; reading in Braille least long than simply reading. The speed depend on exercises, but the support teacher have to know this aspect, in order to adapt the volume of work in reading activities (reduce the volume or give extra time for the blind student).
- Allowing more time for tests
- If the book is not in Braille , use audio-books. For me reading in Braille is a better personal experience, I can stop and reflect on what I read; I like the audio-books too”( Raluca Vlaicu-SPDV, Bucharest) .
- Reading, theater and other art forms helps the blind to develop vocabulary, imagination, communication and become an integrated and a successful person- access to information .

Conclusions Reading exercises, adapted materials in Braille code or in large print, adapted tehnlgy, 3D materials could provide an answer to challenges relating to blindness and partially-sighted.

**P22 Developing an online community of practice with professionals working with adults who are visually impaired and have psychiatric disorders**

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Professionals who support adults who are visually impaired and have psychiatric disorders and additional disorders (persons with VlxPI), use a lot of practical knowledge and expertise in the care and treatment they provide to their clients. This knowledge exists in their heads, hands and hearts and it enables them to guide the often unique and complex support questions from this target group. However, there are no established methods and protocols for the guidance of adults with the combination of these problems. For this purpose, an online Community of Practice (CoP) will be developed in co-creation with professionals working with the target group. By connecting professionals worldwide through an online CoP, an online environment will be created for professionals to communicate with each other about their practical expertise in working with the target group and to help other professionals by sharing their practical knowledge. An iterative process using focus meetings with professionals will be used to collect the requirements for the online CoP. The aim of this research project is to establish practice based methods and protocols for the guidance of adults who are visually impaired and have psychiatric disorders and additional disorders (persons with VlxPI). Professionals will share and develop knowledge and are able to put these insights into practice to improve the quality of life of their clients.

**P24 Realization of Life Habits in Adults with Visual Impairment**

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Social participation is a wide construct that refers to the life situations in which person may be involved. Participation is viewed as a result of interactions between the individual and contextual factors. The ICF defines it as an involvement in life situations. This construct is operationalized through the concept of life habits that are viewed as everyday activities (e.g. nutrition, mobility) and as social roles (e.g. interpersonal relationships). The objective of this paper is to show the degree of realization of life habits of adults with visual impairment in Serbia in relation to the level of their visual impairment, gender and age. The sample consisted of equal number of blind respondents (N=46) and respondents with low vision (N=46), both sexes, aged 18-65 (M=35.10, SD=10.78). Life habits were examined with the short form of The Assessment of Life Habits – LIFE-H (Fougeyrollas, Noreau, Bergeron, Cloutier, Dion & St-Michel, 1998). The respondents' achievements were measured on a scale from full social participation to total handicap situation. The results showed that, compared to blind respondents, people with low vision are realizing greater number of life habits with less difficulty, without the help of others and without the need for the adjustments. On the contrary, we did not find statistically significant differences in relation to age or sex in our sample. We can conclude that, regardless of the fact that the presence of visual impairment can cause difficulties, the connection between this sensory impairment and a problem in the realization of life habits may not necessarily exist. (Note: This study is a result of the project "Social Participation of Persons with Intellectual Disability", which was financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia [No. 179017])

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### P28 Lighting for people with low vision, our approach

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Between 1 and 2% of the Belgian population has a visual impairment. This means that about 1700 inhabitants of the city of Bruges are dealing with a certain degree of visual impairment. Often we forget that creating adapted lighting should be our first focus in creating a better living environment for people with vision loss. Adapted does not always mean creating more light! Sometimes it means filtering unwanted light to avoid glare. In other cases it can be necessary to change some characteristics such as the colour temperature of the light. During this presentation we will explain our method in the search for creating the best possible lighting circumstances for the visually disabled client. We will also present some good practices in creating good lighting for people with vision loss in general.

### P30 The First Steps Project

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Early intervention (EI) for blind and visually impaired people is identified as an important factor for development of the child. In Balkan countries (Slovenia, Montenegro, Macedonia, Kosovo and Serbia) was no well-organized system of early intervention until the year 2012 when First Steps project began. Project coordinator is Royal Dutch Visio and participants of the project are institutions from Ljubljana, Beograd, Novi Sad, Skopje, Peč and Podgorica. The project objectives for each organization are: (1) to have 2-3 well-trained teachers in EI; (2) to have 1 trained psychologist; (3) to have 1-2 trained teachers who assess functional vision. Some of the results of the project are: (1) an increased number of the children in EI for at least 10%; (2) clear structure of the EI program; (3) Individual plan for each of the child and family; (3) Visual function assessment for children in EI; (4) Good cooperation among teachers in EI participating the project. The results of the project was presented in May 2017 in the final conference in Ljubljana which was attended by representatives of the authorities and media from each participating country to promote the EI into the wider community.

### P31 Creative Occupation Center for Children with Visual Impairment

*Menelaos Tsaoussis*

*“PROTOPORIA”, Center for Education and Rehabilitation for the Blind Athens, Greece*

The NON-PROFIT CIVIL PARTNERSHIP “PROTOPORIA” was established in 1999 by the CENTRE FOR THE EDUCATION AND REHABILITATION FOR THE BLIND (C.E.R.B.) and the PANHELLENIC ASSOCIATION OF THE BLIND (P.S.T.). Its mission is the implementation of educational programmes for people with visual impairment in Greece. In September 2016, “PROTOPORIA” was authorized to operate the 1st Creative Occupation Center for Children with Visual Impairment. This foundation, in the course of action for the “Harmonization of Family with Professional Life” by the “Hellenic Agency for Local Development and Local Government” (E.E.T.A.A.) provides several creativity classes for visual impaired children and teenagers of pre-school, primary and secondary education. The activities take place after school, and involve self-expression, entertainment and speaking practice, along with the development of individual and social skills. More specifically, the programmes which are offered are:

- a) school coaching to students of secondary education,
- b) orientation - mobility and daily living skills,
- c) foreign languages,
- d) physiotherapy,
- e) logotherapy,

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- f) ergotherapy,
- g) therapeutic gymnastics
- h) psychomotor treatment,
- i) handicraft,
- j) theatrical play,
- k) computer science
- l) music.

In addition, children and teenagers with visual impairment can attend courses of pre-vocational education, mentoring, and training. What is more important is the presence of supportive services for the children, and the teenagers, as well as their families and / or their closely related environment. The programs are implemented by specialist and experienced scientific staff, in the building premises of C.E.R.B. Our sites are fully-equipped, with all resources in compliance with the relevant technical specifications.

### **P33 Impact of ICT on social interactions in secondary mathematics classrooms: the case of students with a visual impairment**

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Information and communication technologies (ICT) aim at improving the learning process, and their use within classrooms is continuously increasing since a couple of decades. We are conducting a research project on the impact of ICT on social interactions in the context of schooling of secondary students with a visual impairment (VI) in inclusive mathematics classrooms. Secondary students with a VI frequently use ICT-AT (Assistive Technologies), but the often only have limited access to pedagogical content due to the lack of accessibility (Jitngernmadan et al., 2016). At the same time, learning in the classroom typically occurs through some form of social interaction, and recent research has shown that technology-mediated learning situations present some characteristics that may have an impact on the nature and unfolding of social interactions (Karabenick & Puustinen, 2013). However, very few studies have focused on the impact that ICT-AT may have on the dynamics of in-classroom social interactions. Our aim is to fill this gap. Regular mathematics classes including students with a VI equipped with ICT-AT will first be video recorded in order to observe and analyse in detail social interactions taking place between students with a VI, their mathematics teachers, teacher assistants, and peers. Next, the video recorded data will be completed by semi-structured interviews with the participants and the parents of the students with a VI. A pilot study, aimed at testing the research methodology, has been recently conducted with three 9th-graders with a VI. The results of this research project should contribute to enriching knowledge on in-classroom learning and teaching processes for students with a VI. In addition to this, we expect to enhance teaching techniques for secondary students with a VI.

### **P34 Experiences of Parents and Professionals of Children Suffering from Neuronal Ceroid Lipofuscinosis.**

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Background: Children with Neuronal Ceroid Lipofuscinosis face neurodegenerative decline that leads to death during young adulthood. Their parents and professionals have to deal with the disease of these children as well. Objective: To describe the experiences of parents and professionals caring for children with CLN 3. Method: Semi-structured interviews were conducted with fourteen parents and eight professionals, among whom physicians, teachers/social workers, and nurses. Purposive

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sampling aimed to obtain variation in experiences with stage of the disease, which meant parents and professionals of children in different stages of the disease. Interviews were analyzed within a research team, using thematic analysis and metaphor analysis. Results: Caring for children with CLN3 parents and professionals experience a tendency between continuity and discontinuity. On the one hand they strive for order and constancy, for example by repeating stories, rituals, and actions, which is required because of childrens' neurodegenerative decline. On the other hand they try to transcend this order and challenge children to do new things and add new experiences to their existing ones, which reflects the idea that children are still developing. Conclusion: The results offer insight into experiences of parents and professionals caring for children suffering from CLN3. These findings will be useful for parents and professionals who hardly meet others who care for these children in order to find recognition and find new ways of approaching them.

### **P36 Play and social interaction augmented by a smart toy in children with visual impairments**

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Introduction: Play and social interaction are at risk in children with visual impairments (VI), which might interfere with the development of skills that are crucial for participation in a sighted world. Compared to sighted peers, children with VI spend more time playing solitary and engage less often in cooperative or group play. Instead, they tend to direct their interactions to adults more often. In addition, children with VI show delays in the development of cognitive play, particularly in the demonstration of pretend or symbolic play. Also, few stimulating toys are available for children with VI. In order to foster play, the use of augmented toys (a 'Smart toy') that produce sounds during play was investigated. It is expected that the Smart toy stimulates both toy use as well as social and cognitive play, because the sounds might attract attention to their own and their playmates toys.

Method: A counterbalanced cross-over repeated measures design was used. 26 dyads of children with VI in special elementary education played in both a condition with the Smart toy (AKC) and a condition with normal toys (KC). The Smart toy consists of standard toys and a base equipped with Radio Frequency IDentification (RFID) readers and tags, which enable auditory output. Social and cognitive play were observed through interval recording and the Smart toy registered toy use. Differences between AKC and KC were analyzed using Wilcoxon signed rank tests. Results: Children demonstrated more parallel play ( $p < .001$ ) and less cooperative play ( $p < .001$ ) during AKC than KC. Also, they showed more explorative play ( $p < .001$ ) and less pretend play ( $p < .001$ ) during AKC. Toy use was higher in AKC than KC ( $p < .001$ ). Conclusion: one play session with the Smart toy stimulated exploration of play materials, but did not foster social and cognitive play. The effect of repeated playing with the Smart toy on these play behaviors was further investigated.