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International Council for Education and Re/habilitation of People with Visual Impairment

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Content:

The President's Message

This is the first newsletter of ICEVI-Europe in 2022. I am writing this with reflection and our thoughts turn to our friends and colleagues in the Ukraine; and the needless deaths of men and women on both sides of the conflict. I have been able to speak to a few people inside Ukraine about their own condition and about children and young people with visual impairment. It is my current understanding, although this may of course change, that a majority of children that were in schools for the blind in Ukraine have been moved safely across the border with the majority going to Poland. I cannot confirm this but this is what I have been told by several sources. However, I am aware of some children and young people with VI that are still with their parents in shelters and we are very concerned for all of them no matter where they are.

In this edition of the newsletter you will read the Joint Statement by ICEVI & ICEVI-Europe on the Protection and Safety of Persons with Visual Impairment in War-Affected Countries where the International Council for Education of People with Visual Impairment (ICEVI) & The International Council for Education and Re/habilitation of People with Visual Impairment, Europe (ICEVI-Europe) call for all States Parties to international conventions to ensure the protection and safety of persons with visual impairment, including those with additional disabilities and deafblindness, in all war-affected countries. Please feel free to share this across any organisations you wish.

Many people have asked me what can they do to help not only the children and young people with visual impairment in Ukraine, but also those that have been moved across the borders. As there is no register of refugees it is quite difficult to know exactly where everyone is and so identifying the exact needs is tricky. But we are working on it. I am currently confirming the charity details that will directly support children and young people with visual impairment in Ukraine and will let this be known as soon as I get confirmation and status about this. Currently our advice is to keep supporting the main aid agencies such as The Red Cross or other ones your country supports as direct aid (e.g. food, water, medicine etc.) we know is the main need.

It never entered my head that when I took over the Presidency of ICEVI-Europe that one of my first tasks would be trying to identify and support children and young people with visual impairment in a war affected country. It is a reminder to not take for granted our day to day experiences.

Due to the impact of COVID-19, I am having to rewrite some of the strategic plans. In the last newsletter I mentioned that we had to cancel a planned replacement conference in Romania. So currently I am rewriting a new strategic strategy which will include webinars in different languages, some face to face national conferences around teacher education in 2023, and Braille Education, as well as, continuing to develop plans for a European Conference in Italy in 2025. More on this in later newsletters. As COVID has

affected all forms of education, I want to know are we on the right track with our mission to promote educational opportunities and re/habilitation for children and young people with visual impairment throughout Europe? As such I aim to be sending a small survey around to ICEVI-Europe members to identify what members believe should be the priority of ICEVI-Europe over the next five to ten years. This will be short online survey so please watch out for this in your mail box around Summer time. I want to hear from you all, your thoughts and ideas for ICEVI-Europe so that as President I can be confident that I am making sure that ICEVI-Europe is relevant and meets your needs not only as a member of ICEVI-Europe but also as a professional in the education and re/habilitation of children and young people with visual impairment.

As you know, I am based in the United Kingdom and this month we had the launch of the Curriculum Framework for Children and Young People with Visual Impairment (CFVI). You will find details of this in this newsletter however I just want to note that the CVFI is "underpinned by the 'Access to Learning / Learning to Access' (A2L/L2A) model which is based on the premise that specialist support for children and young people with VI should focus on two key outcomes as a route to inclusion:

- Access to learning: Ensuring that all children and young people have fair and optimised access to education.
- Learning to access: Ensuring all children and young people have opportunities to develop their own agency, voice and independence." (CFVI Project Management Committee; ICEVI Newsletter April 2022),

which was to be the key theme of the conference in Romania and will also be the key themes of the webinars across Europe. I urge all you to have a look and to engage with this framework if you can.

Finally, we would like to once again express our heartfelt gratitude to our valuable membership network. ICEVI-Europe exists thanks to the continuous support, efforts and loyalty of its members, which play a catalytic role in enabling us to achieve our aim and objects. ICEVI-Europe's ambitious plan is to reach equality in the education and re/habilitation for visually impaired persons in all European countries and we invite all of you to support this ambition. Please encourage your colleagues, motivate schools, services, centres, associations and institutions active in or related to the education and rehabilitation of people with visual impairment to join ICEVI-Europe.

We encourage you to use the website of ICEVI-Europe. We continue to welcome your valuable contributions for publication in the issues of our European Newsletter. Please send articles, identifying any special events, news, projects, activities, scientific work or good practices undertaken by your organization in your country in the field of visual impairment to the Coordinator of our European Newsletter, Andrea Hathazi, at ahathazi@yahoo.com.

I return again to the war in Europe, to the COVID-19 pandemic and to all of you, stay safe, stay well, and I sincerely hope that this summer brings some joy. One day I hope we will meet up soon, have a beer together, and talk about the excellence in the education and re/habilitation of children with visual impairment.

On behalf of the Board of ICEVI-Europe,

Dr John Ravenscroft

Professor of Childhood Visual Impairment

President

Joint Statement on the Protection and Safety of Persons with Visual Impairment in War-Affected Countries by ICEVI & ICEVI-Europe

THE INTERNATIONAL COUNCIL FOR EDUCATION OF PEOPLE WITH VISUAL IMPAIRMENT

&

THE INTERNATIONAL COUNCIL FOR EDUCATION AND RE/HABILITATION OF PEOPLE WITH VISUAL IMPAIRMENT, EUROPE

JOINT STATEMENT ON THE PROTECTION AND SAFETY OF PERSONS WITH VISUAL IMPAIRMENT IN WAR-AFFECTED COUNTRIES

The International Council for Education of People with Visual Impairment (ICEVI) & The International Council for Education and Re/habilitation of People with Visual Impairment, Europe (ICEVI-Europe) call for all States Parties to international conventions to ensure the protection and safety of persons with visual impairment, including those with additional disabilities and deafblindness, in all war-affected countries by recognizing:

- Their obligations under Articles 11, 15, and 16 of the UN Convention on the Rights of Persons with Disabilities, to take "all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters" (Art. 11);
- UN Security Council Resolution 2475 (2019) on Protection of Persons with Disabilities in Conflict, which calls upon "all parties to armed conflict to allow and facilitate safe, timely and unimpeded humanitarian access to all people in need of assistance. . . . [and] to prevent violence and abuses against civilians in situations of armed conflict, including those involving killing and maiming, abduction and torture, as well as rape and other forms of sexual violence in conflict and post-conflict situations";
- International Humanitarian Law and the Humanitarian Principles, which limits the effects of armed conflict on persons not involved in the

hostilities, including those with visual impairment, and which applies to all sides involved in armed conflict;
- 3.2% of the world's population has a visual impairment, suggesting that in any armed conflict, a large number of adults, children, and young people with visual impairment are at risk; and
- Visual impairment presents unique challenges in mobility, literacy, and access to information, requiring specific accommodations targeted to these unique needs.

In any situation of crisis or conflict, persons who are blind or visually impaired face disproportionate risk of abandonment, violence, death, and lack of access to safety, relief, and recovery support. Women with visual impairment are at increased risk of sexual violence, and children with disabilities are more exposed to abuse and neglect. Crucial information on safety and evacuation is often inaccessible, and the UN DESA estimates that 79% of people with disabilities cannot evacuate independently. In addition, visual impairment is often an invisible disability, unknown to anyone except the individual who experiences it, thus creating an additional risk for rescue and evacuation to safety.

We call on the political leadership and all humanitarian actors dealing with any armed conflict to ensure that all persons with visual impairment:

- Have full access to all humanitarian aid;
- Are protected from violence, abuse, and ill treatment;
- Are provided with accessible information about safety and assistance protocols, evacuation procedures and support, in braille, enlarged print, or digital formats;
- Have full access to basic services including water and sanitation, social support, education, healthcare, transportation, and information;
- Have full access to and use of their assistive, mobility, and rehabilitation devices, which provide needed information and support to navigate and adjust to new environments;
- Are accounted for and not abandoned: It is essential that measures are in place that fully incorporate people living in institutions, specialized schools, and orphanages. Relocation and evacuation measures should not result in more isolation for persons with visual impairment than already created by war itself; and
- Are meaningfully involved in all humanitarian action, through their representative organisations, if not themselves.

The International Council for Education of People with Visual Impairment & The International Council for Education and Re/habilitation of People with Visual Impairment, Europe implore States and other relevant parties to ensure the protection and safety of all blind, deafblind, and visually impaired persons, including those who may have additional disabilities.

As organisations involved in the education and re/habilitation of children and young people with visual impairment, we ask that their needs are acknowledged, addressed, and remembered.

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Launch of a new UK wide curriculum framework for children and young people with vision impairment (CFVI)

On behalf of the CFVI Project Management Committee, Sue Keil (VIEW) and Mike McLinden (VICTAR) report on the launch of a new curriculum framework for children and young people with vision impairment.

Introduction
In the December 2021 issue of the ICEVI Europe newsletter (http://www.icevi-europe.org/newsletter/issue78.php) we provided an update on a two-year project to create a framework for the United Kingdom (UK) that aims to clarify and define the elements of specialist skill development, interventions and best practice support for the education of children and young people with vision impairment (VI). As we outlined in the article, this is a partnership project between four UK based organisations: Royal National Institute of Blind People (RNIB), the professional association for the Vision Impairment Education Workforce (VIEW), Vision Impairment Centre for Teaching and Research (VICTAR) at University of Birmingham, and Thomas Pocklington Trust (TPT).
The new framework, titled the 'Curriculum Framework for Children and Young People with Vision Impairment' (CFVI) has now been finalised and was officially launched at the VIEW online conference on 15 May 2022. In this article we describe what is meant by curriculum framework, how it was developed, the main areas that are included in the framework, explain who it is intended to be used by, and why it is considered necessary to have a new, dedicated UK framework for the education of children and young people with vision impairment.

What is meant by 'curriculum framework' for Children and Young People with Vision Impairment (CYPVI)?
We use the term 'framework' to refer to a set of high-level descriptors that define the elements of specialist skill development, interventions and best practice support that are essential for children and young people with vision impairment. These areas include a range of independent learning, mobility, everyday living as well as social communication skills.
The framework is underpinned by the 'Access to Learning / Learning to Access' (A2L/L2A) model (McLinden et al, 2016, Douglas et al. 2019, Keil and Cobb, 2019), which is based on the premise that specialist support for children and young people with VI should focus on two key outcomes as a route to inclusion:

- Access to learning: Ensuring that all children and young people have fair and optimised access to education.
- Learning to access: Ensuring all children and young people have opportunities to develop their own agency, voice and independence.

The A2L/L2A model describes a progression whereby over time/in accordance with the individual child's developmental level, the emphasis gradually shifts from support being provided directly to the child/young person ('access to learning'), to their acquiring the skills enabling them to function as independently as possible ('learning to access').
How was the curriculum framework developed?
The framework was developed through extensive consultation with a wide range of stakeholders across the vision impairment sector in England, Wales, Scotland and Northern Ireland. A team of researchers from the Vision Impairment Centre for Teaching and Research (VICTAR) carried out the consultation over a period of 9 months, drawing upon experts across the VI education sector, representing different roles and types of expertise, as well as young people and parents. The team used the Delphi approach (https://thepsychologist.bps.org.uk/volume-22/edition-7/delphi-method), which is a method used to form a consensus on a complex topic. Participants (panellists) are selected for their expertise on the topic and are surveyed or interviewed multiple times as part of the idea generation stage and each time the outcomes of the consultation are refined until the point at which a common consensus is formed. Fifty panellists took part through a series of online focus groups and online surveys as part of three rounds of consultation.

What areas are included in the new curriculum framework?
In line with the A2L/L2A model the identified curriculum areas from the UK wide consultation have a focus on inclusion and inclusive practice to ensure physical and social environments are accessible for learners with vision impairment (Area 1), as well as highlighting the particular skills that they require to enable them to participate in education with increasing independence, learn how to carry out everyday activities, move around by

themselves, and to feel fully included in their respective education setting (Areas 2-11). The 11 curriculum areas are set out in Table 1.

Area 1	**Facilitating participation in an inclusive world**
Area 2	**Sensory development**
Area 3	**Communication**
Area 4	**Literacy**
Area 5	**Habilitation: Orientation and mobility**
Area 6	**Habilitation: Independent living skills**
Area 7	**Accessing information**
Area 8	**Technology**
Area 9	**Health: Social, emotional, mental and physical wellbeing**
Area 10	**Social, sports and leisure**
Area 11	**Preparing for adulthood**

Table 1. Overview of identified areas of the Curriculum Framework for Children and Young People with Vision Impairment (CFVI)

Area 1 focuses on inclusion and inclusive practice to ensure physical and social environments are accessible for children and young people with vision impairment, whereas Areas 2-11 are concerned with the particular skills that they require to enable them to participate in education with increasing independence, carry out everyday activities, move around by themselves, and to feel fully included in their respective education setting.

A key role of educators is to manage this progression through structuring an environment that helps promote learning and access (Area 1) whilst also seeking to ensure that appropriate individual skills are developed (Areas 2-11). It is important to point out that the framework recognises, and takes account of, the fact that this balance will vary for different children and their developmental age. It therefore seeks to be inclusive and celebrates access and agency in all its forms.

In addition to the framework itself, a free, online hub has been set up on the RNIB BookShare website, which contains resources that have been developed by individual VI services and schools across the UK to support the teaching of the specialist curriculum framework. The aim is for the hub to be used as a first point of reference for VI sector colleagues to locate resources and information relevant to teaching the specialist curriculum skills. As well as containing resources that can be downloaded directly from the site, the hub also contains links to external resources for each of the 11 Areas.

Why is a new curriculum framework needed in the UK?
There are currently several specialist curricula and outcomes frameworks for CYPVI in the UK, none of which has statutory status. Having such a range of curricula and outcome frameworks can to lead to a lack of clarify about: suitable interventions and when and by whom they should be delivered. As VI educators we know that many of the specific skills that CYPVI need to access and engage with academic learning form part of the specialist curriculum and that independence and personal agency are essential attributes for success in adult life. However, a lack of clarity and consistency in approach, combined with the absence of a shared vocabulary, has made it more difficult for specialist VI education professionals to get key messages across to schools, managers, and local and national government officials about the importance of teaching these specialist skills. One consequence of this has been that the specialist curriculum has often been subordinated to the demands of the mainstream academic curriculum, with an over-emphasis on 'access to learning' rather than 'learning to access'; the child or young person is over-supported rather than acquiring the skills they need to carry out learning and other activities independently. It is necessary, therefore, to set out all the elements of the specialist curriculum and to develop an overarching rationale that captures their role in the wider development of children and young people with vision impairment
Who is the curriculum framework intended to be used by?
The framework is intended to be used by children and young people with VI, their parents/carers, and professionals working in education with CFVI.
Children and young people: It will provide CYPVI with clear outcomes they can target as well as an insight into some of the ways they can do this, and the language they can use to communicate with their parents and educators about their own insights and views into their support needs.
Parents and carers: It will enable parents to understand the pathways of support for their child and the specialist services involved in providing that support, as well as a common language and shared vocabulary to communicate more effectively about their child's support needs.
Education professionals: A single, unified framework will allow professionals across the VI sector to ensure the needs of all CYPVI are being met across all outcome areas. It offers a shared vocabulary for specialist and non-specialist education professionals as well as professionals from other sectors such as health.
The framework will also highlight the responsibility of non-specialists in supporting the delivery of the support set out in the framework, as part of their wider commitments to educational inclusion.

Can the curriculum framework be used in countries outside of the UK?
The curriculum framework was developed for use in the UK education context. As we noted earlier, it was considered important to develop it given there are several specialist curricula and outcomes frameworks for CYPVI being used in the UK (Keil and Cobb, 2019). As with the expanded core

curriculum (ECC) that is widely used throughout the world but which was developed in the USA, the framework could therefore potentially be used in other countries where there are no specialist curricula given it is based on high level descriptors of key curriculum areas that are not country specific. Further the A2L/L2A model that underpins the framework also has potential relevance beyond the UK education sector given it maps out a broad developmental progression and is rooted in the belief that specialist support for children and young people with vision impairment regardless of national context should focus on ensuring all children and young people have fair and optimised access to education as well as opportunities to develop their own agency, voice and independence.

Where can I find out further information?
Copies of the CFVI can be downloaded from the RNIB website: Curriculum Framework for Children and Young People with Vision Impairment (CFVI) - RNIB - See differently
Resources and links to external resources relevant to the CFVI 11 Outcome Areas are available from RNIB BookShare: CFVI Resource Hub | UK education collection (rnibbookshare.org)

Information about the project, and regular updates are available on the VIEW website: Curriculum Framework (CFVI) - VIEW (viewweb.org.uk)

Further information can also be found on the University of Birmingham website: New framework to boost education of children with vision impairment - University of Birmingham

A new textbook on vision impairment education is due for publication in September 2022 which closely aligns with this framework. Entitled Promoting Equitable Access to Education for Children and Young People with Vision Impairment the book offers a suitable vocabulary and developmental route map to examine the changing influences on promoting equitable access to education for learners with vision impairment in different contexts and settings, throughout a given educational pathway.

Planned next steps
The next phase of the project will take place over 3 years, with the aims of embedding the new framework into best practice across VI education in the UK. While details are still being worked out, this is likely to include an evaluation of how it is being used, as well as the development of new resources and training for education professionals.

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ADD@ME: Ambassadors of Diversity and non-Discrimination @ new Methods in non-formal Education

By Vassilios Argyropoulos (ICEVI Europe National Representative of Greece)

Introduction

People with disabilities very often are treated as people with weaknesses without recognizing their potential and the significant contributions they can make in society. The third EU Youth Goal (2018) states that 1/3 of young people in Europe are at risk of social exclusion. People with disabilities are included in this category and often end up as victims of indirect discrimination. According to the UN Convention on the Rights of Persons with Disabilities, it seems that in many cases the values of equity, empowerment, and emancipation do not apply for people who have disabilities. Specifically, people with visual impairments are often seen as people with fewer opportunities and are often characterized as a minority group and as a result, in many cases they are isolated within a seemingly inclusive society. The present paper refers to an Erasmus+ project entitled "Ambassadors of Diversity and non-Discrimination @ new Methods in non-formal Education" (ADD@ME, No: 2020-2-IT03-KA205-019070) which acknowledges the need to tackle the above-mentioned challenges by providing opportunities to people with visual impairments to take the lead and become active agents and ambassadors of their rights at all levels of everyday life. The main objective of ADD@ME is to develop or consolidate skills in youth with visual impairments which include public speaking, self-advocacy, communication and interpersonal skills, presentation skills, team work, leadership and networking.

The innovative character of this project lies in the development of a tailor-made blended training programme and a set of digital adapted tools which will be used and exploited by youth with visual impairments themselves in order to empower and enhance self-confidence, and develop a spirit of initiative and self-esteem in young people with visual impairment, fostering and enhancing social inclusion. The project consortium consists of six organizations which each bring a different perspective to the project according to their profile. The members of the project consortium organisations are: the Unione Italiana Ciechi ed Ipovedenti Firenze (coordinator, Italy); Fundación Docete Omnes (Spain); Views International

(Belgium); the Polish Association for the Blind (Poland); Ofensiva Tinerilor Asociatia (Romania) and the University of Thessaly (Greece).

Below we present the programme outputs and outline many of the activities and events that have already taken place to meet them.

ADD@ME INTELLECTUAL OUTPUTS

IO1-ADD@ME Blended Training Programme for Visually Impaired Youngsters

The main content of IO1 is rich and condensed and constitutes six modules coupled with corresponding podcasts as follows;

- Managing groups and group dynamics
- Leadership skills
- Interpersonal and effective communication skills
- Supporting personal development and providing emotional support when coming across diversity
- Disability-related knowledge: acquiring skills to explain to other people the visual impairment
- Planning and implementation of awareness raising workshops.

The ultimate target of IO1 is to empower youngsters with visual impairments by boosting their self-confidence and spirit of initiative, encouraging them to become active citizens and agents of solidarity who participate actively in society as Ambassadors of Diversity and non-Discrimination, promoting the social inclusion of visually impaired people at EU level. The open-source materials have been translated into English, Spanish, French, Greek, Italian, Polish and Romanian, and will be available on the project website (https://www.ambassadorsofdiversity.eu/).

IO2-ADD@ME Mobile Toolkit for Visually Impaired Youngsters

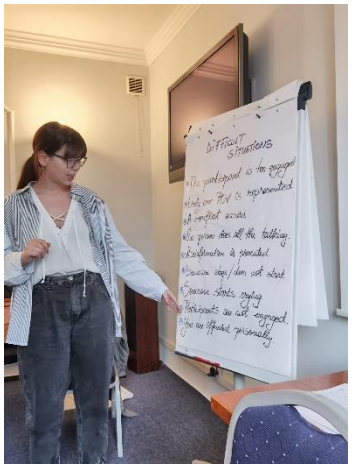
The Mobile Toolkit for the Visually Impaired Youngers is a digital tool providing a practical and innovative set of non-formal learning methods/ activities to be used by youngsters with visual impairments as Ambassadors of Diversity and non-Discrimination to lead awareness raising activities on disability (focus on visual disability) for their local communities. The Mobile Toolkit contains non-formal learning methods such as icebreakers, role plays, theatre exercises, team games, human library method, etc.
The ADD@ME Mobile Toolkit is a Web App containing a large number of non-formal learning methods/activities, designed with accessibility and usability features for people with visual impairments. The Web App will be available from the project website (https://www.ambassadorsofdiversity.eu/) as well as from partners' organizations websites and will be translated into English, Spanish, French, Greek, Italian, Polish and Romanian.

IO3-ADD@ME Online Trivia Game for Visually Impaired Ambassadors

The online Trivia Game for Visually Impaired is still in progress. All project partners are working on beta versions of the game and are providing feedback to the leading organizations of this Intellectual Output.

ADD@ME JOINT STAFF TRAINING EVENTS

The first joint staff training event took place in Warsaw (Polish Association of the Blind) from the 31st of August to the 4th of September 2021. During this training event delegates from the project organizations presented and tested all modules. The reflective element was very much evident at this first joint staff training event and the members of the project provided amendments and modifications in the training material improving its clarity and coherence.



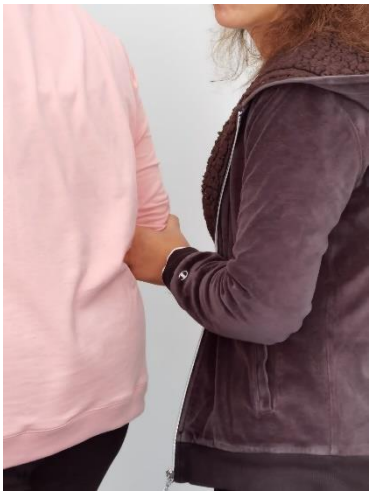


Figure 2. Representatives and contact persons of the ADD@ME project in action!! Activities during the first joint staff training event in Warsaw (Poland)

ADD@ME REPRESENTATIVE DISSEMINATION ACTIVITIES

Below you can find some of the activities that aimed to disseminate and communicate the action of the ADD@ME project

April 2021

On the 10th of April 2021 the Unione Italiana Ciechi ed Ipovedenti Firenze (UICI) presented ADD@ME project at an assembly to participating professionals, members of the general public and local authorities.

June 2021

Ofensiva Tinerilor conducted online meetings presenting the activities of the project. Representatives of youth NGOs from Slovenia, Portugal and Romania participated the event.

July 2021

Polish Association for the Blind (PZN) delivered relevant information in the "Torch" magazine about the project transnational meeting which took place in Greece.

June & August 2021

Ofensiva Tinerilor presented the project and its activities to the association of the Blind from Arad in order to select participants for the future local workshops and also to build up the idea of the local implementation of the project.

September 2021

a. Polish Association for the Blind (PZN) delivered relevant information in the "Torch" magazine about the joint staff training in Warsaw.

b. The partners of VIEWS International AISBL, through their sources delivered detailed information about the 2nd transnational project meeting as well as about the joint staff training event which took place in Poland (Warsaw).

November 2021

On the 8th and 9th of November 2021 as part of the dissemination of results, members of the consortium of the ADD@ME project participated in the international ICERI Conference. The presentation had the title "Empowering young people with visual impairments to become active agents for social inclusion: the case of the ADD@ME project". The recipients of the conference were academics, researchers, primary, secondary, vocational, or tertiary educators, school counsellors, principals and teachers, education policy development representatives, lifelong learning educators, education advisers and general personnel from vocational sectors, Special education teachers and professionals who work in special education.

You can find and cite the article as follows:

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become active agents for social inclusion: the case of the ADD@ME project. Proceedings of ICERI2021 Conference (pp. 4832-4837). ISBN: 978-84-09-34549-6.

To read the abstract of the presentation follow the link

https://library.iated.org/view/ARGYROPOULOS2021EMP

The ADD@ME project has paved the way for many events and activities such as:

- Blended mobility of young People (C2)
- Local training events
- Multiplier events

For more information you may visit

- **ADD@ME website:** www.ambassadorsofdiversity.eu
- **ADD@ME Facebook:** Ambassadors of Diversity

Contact

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Support for children with visual impairments during the pandemic

Sustaining our programs and paving the way for a better future for blind and sight impaired children and youth in Israel

Ofek Liyladenu (Hebrew for "Our Children's Horizon") was established in 1997 by parents of blind and visually impaired children in Israel, and since has become a recognized leader and a partner to Israeli government authorities and like-minded nonprofit organizations. ***Our mission is to enable blind and visually impaired children in Israel to achieve their full potential.***

We began 2020 with our support programs well planned and organized—but, of course, we could not anticipate the unprecedented challenges ahead. Yet in mid-March, with the outbreak of the Covid pandemic and the first lockdown in Israel, we launched an emergency plan: outreach to parents; processing and analysing the needs on the ground; informing and working with relevant authorities, i.e., Israel's Ministry of Education, to adapt services to the children's emerging needs. We also recalibrated our own team and services in the months that followed.

From our first survey, it was clear that the impact of the pandemic was disproportionately distressing for our children and youth, who are so deeply dependent on their sense of touch. Schools were closed, remote learning was not established and support systems were restricted. Hence, a first response during the earliest days of the pandemic was to establish our emergency centre to provide individual guidance and group counseling to hundreds of families across the country.

The emergency centre provided support from Ofek Liyladenu's social workers and psychotherapist via phone, zoom and online platforms. We conducted dozens of webinars that reached hundreds of families throughout Israel—including remote regions. Parents and children gained practical tips on coping with the challenges of lockdowns and quarantines, home educational activities, group consultations with a social worker, zoom sessions adapted to the needs of children who are blind and sight impaired, and even guidance for grandparents.

To the greatest extent possible, we maintained and adapted our core programs, from home tutoring to music lessons and summer employment for teens. Many young children were in a similar situation to nine-year-old Uri, who is completely blind. He was unable to participate in distance learning, and

was deeply frustrated by feelings of isolation. His mother turned to us because she was overwhelmed by her son's despair. She received counsel from one of Ofek Liyladenu's social workers, who was able to support the son and the family with guidance in day-to-day coping skills. As soon as it was feasible, Uri was assigned with one of our tutors who met with him weekly.

Our families were grateful that Ofek Liyladenu advised and supported them, and also for our on-the-spot initiatives to adapt our programs to circumstances we could have never imagined. The mother of a 15-year-old child who is legally blind told us: *"We were so impressed that you continued your programming despite the overwhelming challenges."*

Sustainability and Continuity in 2021: Overcoming the continuing challenges of the COVID-19 Pandemic

In 2021 Ofek Liyladenu restored, maintained and adapted all of our programs to the dynamic changes posed by the health strictures of the pandemic. We gave special attention to programs and bolstering inclusion and support for the children and teens who suffered the greatest setbacks in the previous year. They had struggled with illness, social isolation and the educational gaps that were an inevitable outcome of zoom learning.

Excellence on the Horizon: Some 50 children and teens (throughout the country) benefited from home tutoring provided by tutors with special training in meeting the needs of blind and sight impaired students.

Employment on the Horizon: We continued to make every effort to ensure that the greatest possible number of teens would gain the opportunity to participate in both the training days and summer employment. Although we were not able to return to the numbers of participants in training and work placements that we had achieved pre-pandemic, we made a significant comeback from 2020. There were 60 teen participants in our training sessions, in contrast to 54 in 2020, and 40 teens participated in summer employment, in contrast to 12 in 2020.

Musical Dreams: Dozens of children and teens participated in instrument and voice lessons in 2021.

During the summer, Ofek Liyladenu provided long-awaited enrichment programs for families throughout the country. After an extended period of isolation, families throughout the country participated in an accessible nature hike (some sixty participants). We resumed our summer happening at the

Israel Centre for Guide Dogs (150 participants). Other activities included a dance movement session conducted by a professional troupe (the Israeli equivalent of "Stomp"). There was a meet-up with a prominent children's film producer and a screening adapted to the needs of blind and sight impaired children. Children, teens, and families were heartened by the gatherings. Although attendance was, by circumstance, lower than in pre-COVID times, the sense of renewal and appreciation for these opportunities were palpable.

We are proud to look back and recognise Ofek Liyladenu's staff, board and volunteers. They all rose to the challenge, with creative thinking and wholehearted dedication to responding to the needs of our community. We provided individual and group guidance to parents from professional social workers and therapists, outreach via social media and found innovative ways to continue our programs to the maximum extent possible, in full compliance with the directives of Israel's Ministry of Health. All of this was made possible by our philanthropic friends and volunteers, and we are deeply grateful to each and every one of them.

The outbreak of the COVID pandemic presented unusual challenges for many service providers, as instructions and restrictions by health authorities changed frequently and rapidly. Yet, Ofek Liyladenu's team was determined to provide the children and their families with the highest level of support and services that we could.

Despite the limitations still posed by COVID, we believe 2020-2021 proved our capacity to sustain our programs and services, and at the same time, stay on course with our long-term goals. We take tremendous pride in the resilience of our children and youth. We acknowledge with gratitude the spirit and achievements of our staff members, board, and volunteers.

Yael Weisz-Rind, Executive Director

Ofek Liyladenu

Improving reading and comprehending mathematical expressions in braille

by Annemiek van Leendert

In 2021, I completed my dissertation. The main research question guiding this study was: 'How can braille readers improve reading and comprehending mathematical expressions?' I studied that question from different perspectives. The emphasis was on research into tactile perception, professionalization of mathematics teachers and representing mathematical expressions in braille. This publication is a summary of my studies on tactile perception.

An exploratory study of reading mathematical expressions by braille readers

The aim of the first sub-study was to gain a better understanding of how braille readers read and comprehend mathematical expressions on a braille display (see Figure 1). Three braille readers and five students who had typical vision (hereafter 'print readers') took part in this study. All the participants had mastered mathematics at grade 9 level. Using finger-tracking technology, the braille readers' tactile strategies in reading and comprehending mathematical expressions were recorded (see Figure 1). The assumption was that knowledge of the visual reading strategies of print readers would provide indications for improvements in the reading strategies of braille readers. Therefore, with the help of eye-tracking technology, the visual strategies of print readers while reading and comprehending the same expressions were also recorded. Subsequently, the scan paths of the eye and finger movements were analyzed to gain more insight into the students' reading strategies. These scan paths illustrate the order in which the elements of the expression are read and how much time the students need to read and process the expression or parts of the expression (see Figure 2). The results show that the two experienced braille readers – experienced in reading in braille – took 3.5 times as long as the print readers to read and process four items with mathematical expressions. The less experienced braille reader needed even more time. The results also show that braille readers reread more than print readers did. As a measure of the rereading, we used the ratio between the length of the scan path and the length of the expression. For the first item (3 × 2 - 5) + 4, for example, the ratio was 13.2 for braille readers and 3.3 for print readers. The analyses of the scan paths show that the braille readers applied very personal reading strategies for all items without making much use of the mathematical structure of the expression. The print readers, on the other hand, used structure-related strategies. In summary, compared to the print readers, the braille readers required more time, reread more and used reading strategies that were less structure related.

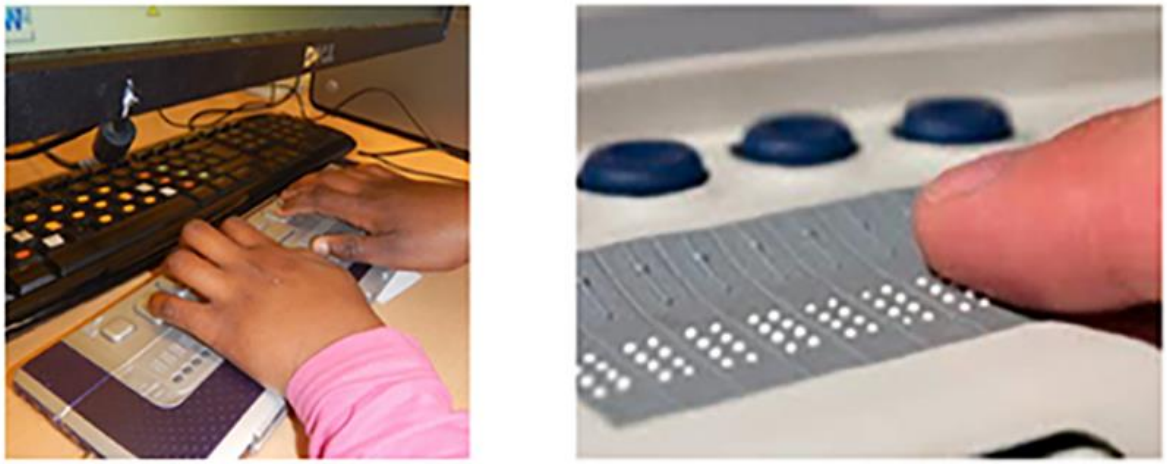

Figure 1 Reading on the braille display

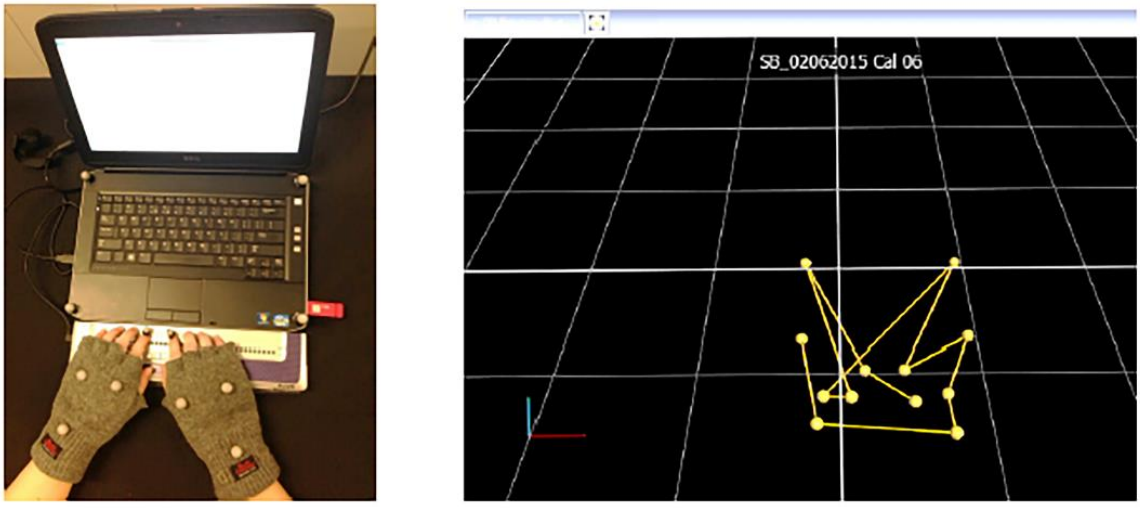

Figure 2 Recording of finger movement patterns. The panel on the left shows a laptop with a braille display. The markers of reflective tape are attached to the gloves, to the nails of the index fingers and to the laptop. The panel on the right shows an animation of the tracking in space

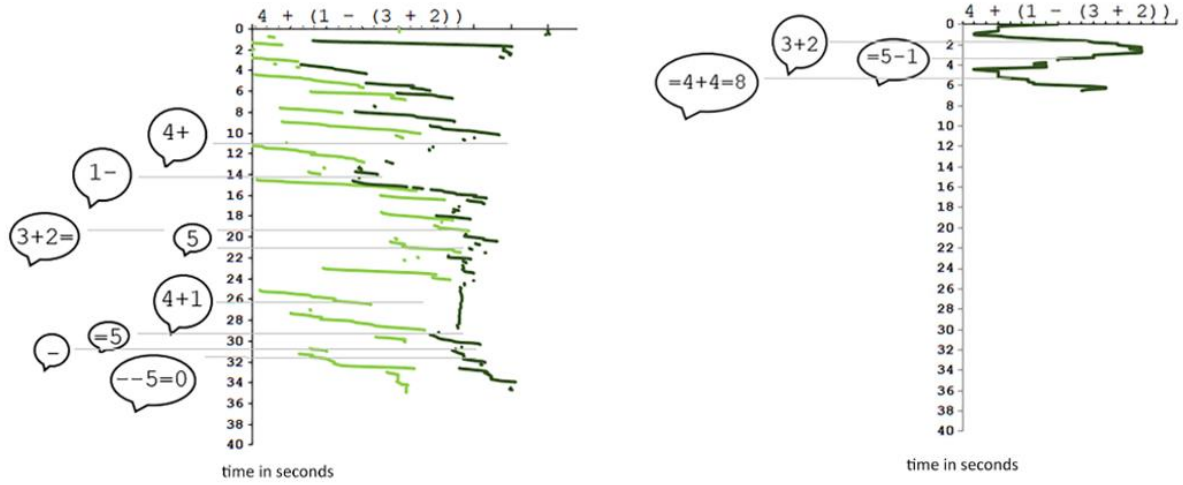

Figure 3a shows the tactile scan path of a braille reader, figure 3b the visual scan path of a sighted student. The horizontal axis shows the expression 4 + (1 - (3 + 2)), the vertical axis the time in seconds. The speech bubbles contain the text that the student has spoken aloud. In the tactile scan path only the finger movements from left to right are shown because braille readers only read from left to right. Light green represents the movements of the left, dark green the movement of the right index finger. When you look at the two figures, a number of things stand out. Figure 3a is more crowded than figure 3b. That's because the braille reader reads with two fingers and reads all the bits of the expression multiple times. The braille reader needs ten seconds to get an overview of the expression. It also takes more time to calculate the value of the expression. The sighted student, on the other hand, seems to have an immediate overview of the expression. He does not fixate on the closed brackets. This is also not necessary because, due to the very special shape, the brackets can already be easily identified in his peripheral field of view.

The results of this first study show that braille readers take longer than print readers to read and process mathematical expressions. This can be especially a problem when braille readers are in a regular school. If the pace of the class is too fast for the braille reader, he / she will not have enough time to properly process the subject matter. Working with classmates will therefore be difficult. In addition, a braille reader who works slowly will have to spend a lot of time on his / her homework. This also means that the braille reader has little time for relaxation. We have therefore designed an intervention that should help braille readers to read and understand expressions more efficiently.

An exploratory study to improve reading and comprehending mathematical expressions in braille

This second sub-study is about an intervention that teaches braille readers to use tactile reading strategies with attention to the mathematical structure of expressions and equations. The intervention consisted of five individual

lessons. Three braille readers, in grade 7, 8 and 11, took part in the intervention. During the intervention, much attention was paid to the use of a disjoint reading style. In this reading style, both index fingers move at some distance from each other on the braille display. This reading style allows the braille reader to compare and (mentally) connect different parts of an expression or equation – even when these parts are relatively far apart. During a pre-, post- and retention test, the movements of the index fingers over the braille display and the time it took to read and process the expressions were video recorded. The braille readers made no errors in the tests. Four test items have been selected for further investigation. The results show that, in the post-test, each braille reader took at least 29% less time to read and process the expressions. The results of the retention test were even better. Analyses of the scan paths show that, after the intervention, the braille readers picked up characteristics of the mathematical structure more easily.

Five of the six braille readers who participated in the first two studies reported that they commonly use braille in coordination with speech synthesis. I think this is certainly advantageous if all elements of the expression can be pronounced using speech synthesis and the speech dictionary is expanded with mathematical vocabulary. I know from experience that this is often not the case, and if so, the screen reader software should be adapted. The results of the first two studies indicate that braille readers need more help reading and comprehending mathematical expressions and equations in braille. I think that the mathematics teacher is the key figure in providing this support. That is why an intervention has been developed that consists of a professional development course (from now on PD-course) for mathematics teachers who teach braille readers in combination with adjustments of their braille readers' screen reader software. I will tell you more about this intervention another time.

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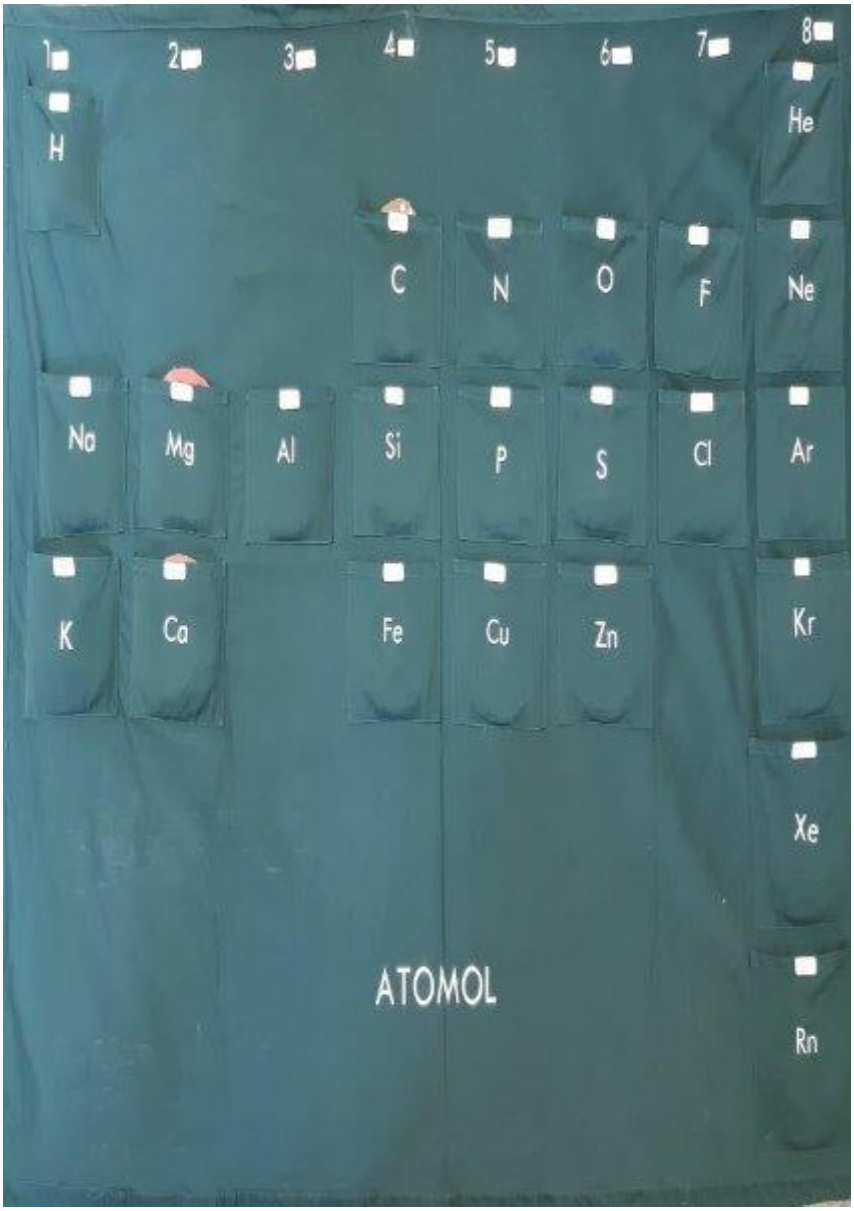

AtoMol

Dr. Szombati Zsigmondné

I would like to present my self-developed chemical modelling kit, the AtoMol. It makes it easier for students to get to know the structure and connections of chemicals through touch. The AtoMol can be used without adaptation in teaching both blind and partially sighted students.

One of the greatest challenges for chemistry teachers is how to help their students imagine chemical phenomena and to understand concepts that cannot be illustrated, seen, or grasped by the hand. Methodological books, articles, teaching aid catalogues, countless models, modelling tools, diagrams, etc. are available in learning-teaching practice. However for blind children, learning about the world is largely dependent on hearing and touch and it is very difficult for them to understand chemistry through aids such as pictures in books and the colours of the molecular building kits that are available to children who are fully sighted.

As a special education teacher, I have been gaining experience for decades in the learning, understanding, and conceptualization processes of my blind and visually impaired students.

While teaching chemistry, I faced difficulties for myself and my students. For example it was always difficult to explain how the structure of an atom changes and the number of electrons in different atoms. I therefore created a modelling tool that clarifies how atoms are made up and shows the molecule and its connection.

I have been using the AtoMol kit in education for six years now and in my experience, it makes it much easier to learn chemistry. Learning with the kit also develops students' attention, logical thinking, and creativity.

Introducing AtoMol

The basic material of the set is felt, the nucleus and the electron orbits are separated by a thin cord. The protons in the nucleus are replaced by beads, the electrons by buttons, and the free-electron sites by a buttonhole. In the case of valence electrons, even and odd electrons are distinguished.

The conversion of atoms into molecules can be modelled by connecting buttons and buttonholes. The bindings thus become interpretable for all students.

The unit storing atoms is provided with pockets according to the periodic table with the names of the groups and atoms in plain and Braille. This solution also provides knowledge of the periodic table. This makes it easy to characterise and position each atom. I created a custom set that is placed in a folder by major groups. I placed the noble gases embossed in this set.

I am convinced that this tool is equally suitable for all children in schools, regardless of disability. Visually impaired young people can also work with their sighted peers, making AtoMol universal. I hope that I can arouse the interest of many young people in the subject with my invention so that their knowledge can be placed on a more secure foundation.

The AtoMol in YouTube: https://www.youtube.com/watch?v=Q4f7XoWNQSc

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A New Step Forward on Communication of Deafblind People, The "DACTYLS" System

by Eugenio Romero Rey, Coordinator of the Technical Unit for Deafblindness ONCE, Spain.

Key words: communication, deafblindness, tactile, publication.

REVIEW:

Publication, in digital support in App, of the DACTYLS communication system for deafblind people.

DACTYLS is an alternative tactile communication system, in which messages are emitted and received through touch, following the structure of oral language. Its functioning is based on the combined use of the tactile fingerprint alphabet and the use of tactile signs and resources, mostly taken from sign language and other newly created languages. Signs are adapted for their tactile perception on the palm of the hand, mainly, but also on other parts of the hand, arm and even the shoulder of the deafblind person, based on some grammatical rules that regulate its functioning.

It incorporates its own communication resources to transmit complementary information about the communicative context and all this is structured under a range of grammatical rules and regulations that define its operation and use.

Its development is based on a fundamental communicative need. Deafblind people who use the tactile fingerprint alphabet recognize that they have to speed up and become able to receive messages in a more efficient way. This was the reason why users, together with their usual interlocutors, were often personalizing the introduction of tactile signs that complemented and increased the capacity of tactile reception of the oral message, reaching in some cases the practical simultaneity reception of the oral message in tactile form.

This combination of fingerprint, signs and other tactile resources, as well as certain rules of use, becomes a different, very powerful and valid communication system for deafblind people.

ONCE, under the coordination of the ONCE Deafblind Technical Unit, with the collaboration of FASOCIDE (Federation of Associations of Deafblind People of Spain) and through consensus with the deafblind users themselves, has been carrying out a work of standardization and systematization of this system. For this, all the tactile signs, resources and rules of use were established by the deafblind people themselves, deafblind technicians and mediators through a Team Force that has been developing this task of unifying the signs and rules of use of the system with the aim of achieving a common corpus of use that allows all users and potential users (deafblind people, guide-interpreters, mediators and all their potential interlocutors) to use the same signs and in the same way so that the system can be shared in a general and common way.

Its purpose is to share the same signs, resources and rules, in order to help improve the communicative possibilities of deafblind people, avoiding the personalization of the use of communicative elements used to complement and enrich alphabetic-tactile communication.

All this agreed and unified information incorporated into the system is reflected in the respective Apps that have been developed by the ONCE Center for Tiflotechnology and Innovation in collaboration with Complutense in the University of Madrid. They are available for free download on both iOS and Android platforms. The whole system is also available online at the website www.dactyls.es

They collect in a systematic and accessible way all the information necessary for its dissemination, knowledge and learning of the system, for the benefit of deafblind people who will be able to see their alphabetic tactile communication enhanced thanks to DACTYLS.

In conclusion, people with deafblindness, professionals in communication with deafblind people such as communicative mediators and guide-interpreters, other professionals, family members and in general all the people in the environment with whom deafblind people need to communicate, have an effective communication system with the following most relevant characteristics:

- It achieves a significantly higher speed in the transmission of messages, compared to tactile spelling.

- It allows the contextualization of messages through the transmission of complementary information about the environment, not only due to the inclusion of tactile resources to transmit it, but also thanks to the fact that, as the transmission speed of the messages is much faster, it allows the simultaneous introduction of these resources that contextualize the deafblind

person with respect to the communicative situation in which they find themselves.

- It facilitates the transmission of emotions, feelings, intonations and linguistic nuances that are generally emitted through the voice, facial expressions, etc.

- During mobility, it facilitates the transmission of contextualized messages and communication in a situation of displacement, guaranteeing safety.