The Educator

Innovative Educational Practices

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- **Round Table on Information Access for People with Print Disabilities**
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- **Svenska skolan för synskadade**
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- **Dancing Dots Braille Music Technology Inc.**
  www.dancingdots.com

- **Caribbean Council for the Blind**
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- **Associação dos Cegos e Amblíopes de Portugal (ACAPO)**
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- **Royal Institute for Deaf and Blind Children**
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- **Blind SA**
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- **PanHellenic Association of Parents Guardians and Friends of Visually Impaired People with additional special needs "Amimoni"**
  www.amimoni.gr

Global Campaign on **Education For All Children with Visual Impairment (EFA-VI)**

Participating Countries

Fiji

Papua New Guinea

Cambodia

Vietnam

Nepal

India

Tajikistan

Kenya

Palestine

Ethiopia

Uganda

Rwanda

Malawi

Mozambique

Mali

Burkina Faso

Ghana

Paraguay

The Dominican Republic

Honduras

Guatemala

El salvador

Nicaragua

Ecuador

Bolivia

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Dear All

Happy to meet you again through The Educator! Following the appointment of Dr. Aubrey Webson, the former Editor of The Educator as the permanent representative of Antigua and Barbuda to the United Nations, Marianne Riggio, Director, Educational Leadership Program and International Campus Related Training, Perkins International has assumed the responsibility of the editor. We extend a warm welcome to Marianne and wish her success in her new endeavour. I shared the following message in the ICEVI E-News and want to share it again with the larger ICEVI constituency through The Educator.

We congratulate Nafisa Baboo, Light for the World representative on our Executive Committee, who has been elected to the Board of the Global Campaign for Education; Praveena Sukhraj, ICEVI Principal Officer, who made a presentation on behalf of ICEVI and the World Blind Union at the day of general discussion on Article 24 of the UNCRPD, held on 15th April in Geneva and has also been appointed to represent ICEVI on the Board of the Accessible Books Consortium hosted by WIPO and Kay Ferrell, Chair of our North America / Caribbean Region, who delivered a statement at the UN ECOSOC (Economic and Social Council) High Level Segment for NGOs on Managing the Transition from the Millennium Development Goals to the Sustainable Development Goals on 10 July. It is excellent news that ICEVI's profile is being raised in all these fora.

We had a very good meeting of the Executive Committee in London on 8-9 April. Headlines included:

- It was agreed that the regions should be registered as separate companies with ICEVI global remaining the overarching body and flexibility for individual countries to register locally with the agreement of the Executive Committee. ICEVI's constitution should also be amended to permit some variation between regions in the priority accorded to different activities.
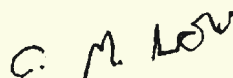
- It was generally agreed that there should be some increase in membership fees. It was considered that the organisational membership fee should be increased with immediate effect, the size of the increase to be recommended by the Principal Officers. As regards the fee for International Partner Members, there was support for the view that this should increase by 2% each year to allow for inflation, but it was agreed that the matter should be discussed individually with International Partner Members. Individual membership fees should be reviewed in consultation with the regional chairs. INGDOs based in particular regions might be invited to join the appropriate regional committee and smaller INGDOs who are not members of ICEVI's Executive Committee may also be charged an appropriate fee to become voting members of the regional committee.

- It was learnt that a memorandum of understanding had been signed between the East Asia Region and the Special Education Regional Centre of the Southeast Asian Ministers of Education Organization (SEAMEO-SEN), which should provide an excellent forum to promote our agenda. Dr. Mani was invited to attend their internal directors' meeting on 8-10 June and I delivered the inaugural address to the regional conference on special education which SEAMEO-SEN organised in Bangkok at the end of July.

- It was agreed that ICEVI should publish the Educator and other publications in digital form only in the future and gradually phase out the production of hard copy versions. The

Secretariat is already actively exploring the logistics of actioning this.

Finally, I had a very successful visit to Mauritius at the end of April with a view to establishing a pilot of our technology initiative there. We met with the Global Rainbow Foundation, a local NGO who will lead the pilot for us and were warmly welcomed by the Deputy Prime Minister and Ministers of Education and Social Security, as well as the UK High Commission, who all offered their support. We met the Chief Executive of Standard Chartered Bank and his staff, who were also very encouraging. They said we had come at just the right time in terms of the funding priorities of their 'Seeing Is Believing' initiative, and if we could make things work in Mauritius, the initiative could be rolled out to other countries in Africa. Importantly, we also visited the local blind school, where it was clear that there was scope for the more effective use of technology.

We are in the process of making amendments to the constitution of ICEVI, which will be published in the January 2016 issue of The Educator.

C. M. Low

Colin Low
President, ICEVI

Message from The Editor

It is an honor for me to have been asked to act as Editor of the Educator. The articles in the issue offer a glimpse into the work of many gifted educators whose creativity and passion for their work inspire our field. It is a particularly diverse issue with contributions from professionals from around the globe. I would like to extend my thanks to all of the professionals who have taken the time from their busy schedules to share their work with us.
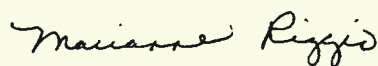
In this issue you will learn about the transition to Unified English Braille in countries where English is the language of instruction. You will also get a glimpse into training teachers in deafblindness in the Philippines; programs serving children with multiple disabilities in the Ukraine, as well as other submissions from educators who are creatively meeting the challenges to ensure that children, no matter who or where they are, receive the greatest opportunities to learn.

The UN Sustainable Development Goals reaffirms the challenge to Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Goal 4). Even with the great strides made by the EFA-VI campaign, we still have a long way to go to realize this goal. The vast majority of children who are blind and visually impaired - especially those with additional disabilities, still are without access to the same quality education as their sighted peers -- or indeed to any education at all.

In our upcoming issue we will look forward to submissions from colleagues who are doing great work in reaching unreached children and young adults around the world.

Wishing you all a very happy holiday season.

Marianne Riggio

Marianne Riggio
Editor

ICEVI - Half-Yearly Update

January to June 2015

A summary of activities carried out from January to June 2015 by ICEVI in which many of the Principal Officers, Regional chairs, Regional Secretariat and ICEVI Secretariat were closely involved.

1. Praveena Sukhraj, Principal Officer and Martin Osangiri Okiyo, Regional Coordinator, ICEVI attended the General Assembly of the Global Campaign for Education (GCE) in Johannesburg, South Africa in February 2015 and lobbied for the inclusion of disability agenda in mainstream programmes.

2. ICEVI regions organised activities in connection with the Global Action Week (GAW) of the GCE. These programmes created greater awareness in the public about the potential of persons with disabilities.

3. In response to the idea of regional development process, Hans Welling, Advisor, Regional Development is having consultations with ICEVI regions about registrations of them as legal entities. The consultation is already over in the Africa region and other regions will have the steering committee meetings soon.

4. ICEVI was invited to participate in the SEAMEO (South East Asian Ministers of Education Organisation) Centre Directors Meeting on 8 – 10 June 2015 at Bangkok, Thailand. This opportunity was well utilised by the ICEVI, which was represented by the CEO, to develop interaction with the general stream institutions and also encouraging them to work with the Special Education Resource Centre of SEAMEO, located at Malacca, Malaysia.

5. Preparation is underway to organise the ICEVI East Asia Regional Conference 2015 in Bali, Indonesia from 28th September to 1st October 2015. Nearly 200 delegates have registered as on June 30, 2015.

6. Preparation work is progressing steadily for organising the WBU-ICEVI Joint Assemblies in Orlando in 2016. The International Organising Committee had a conference call and outlined the detailed programme for the event. Letters have already been sent to the International Non-Governmental Development Organisations with a request to extend sponsorship to the Joint Assemblies.

7. ICEVI has formed a strategic partnership with the DAISY Consortium to provide practical solutions for print disabled people. Colin Low, President, ICEVI and Richard Orme, CEO, DAISY are leading the technology initiative and made a visit to Mauritius to work on a pilot project.

8. In continuation of the meeting of the Vision Alliance Team with Mr. Barry Palmer, President, Lions Clubs International in London in March 2015, the ICEVI regional chairs have been requested to prepare joint plans of action for implementation of education and rehabilitation activities in collaboration with the local Lions clubs.

9. The Text to Speech (TTS) Engine work is progressing well in Myanmar. The demo version has already been released and the team is refining the same with an objective of releasing the final version on 3rd December 2015 on the occasion of the World Disability Day.

10. The Secretariat put together 10 draft documents covering Braille, Early Childhood Care and Education, Low Vision, Multiply Disabled Visually Impaired Children, Information and Communication Technology, Human Resources Development, Research, Expanding Educational Opportunities, Inclusive Education, Self Esteem, Sports, Parental Involvement, Independence and Orientation & Mobility, out of the articles published in The Educator and these documents will be further edited to bring out as Digital Publications of ICEVI.

11. Praveena Sukhraj also represented both the World Blind Union and ICEVI at the Day of General Discussion on Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) held on 15 April in Geneva. She made a presentation on behalf of ICEVI and WBU, which certainly raised the profiles of both the organisations.

12. ICEVI contributed professionally to the Policy and Teacher Preparation Working groups of the United Nations Children's Fund (UNICEF).

13. Published the January 2015 issue of The Educator and for the first time, digital copy of the publication was sent to over 3500 contacts.

14. Published the April 2015 issue of ICEVI E-News.

In the second half of the year 2015 (July-December) the following activities are likely to be taken up:

1. Re-launching the Education For All Children with Visual Impairment (EFA-VI) Global Campaign at the Institutional Development Programme (IDP) Africa Forum in October 2015.

2. Conducting meetings of the Regional Chairs, Principal Officers, Executive Committee and the Global Task Force of ICEVI in Kampala, Uganda in October 2015 in conjunction with the IDP Africa Forum.

3. Organising technical sessions on EFA-VI Global Campaign, Early Intervention, International Disability and Development Consortium (IDDC), Vision Alliance, Mathematics Education etc., as a part of the IDP Africa Forum.

4. Making an oral statement at the United Nations Economic and Social

Council (UN-ECOSOC) meeting in New York in July 2015. Kay Ferrell, our Regional Chairperson of North America and Caribbean region will be making this statement.

5. ICEVI will play an active role with the SEAMEO-SEN in organising a Regional Conference on Special Education in Bangkok in July 2015. Colin Low, President, ICEVI will speak at the opening session.

6. Will organise the ICEVI East Asia Regional Conference in Bali, Indonesia from 28th September to 1st October 2015. ICEVI President Colin Low, along with Government officials from Indonesia will be participating at the inaugural session. ICEVI will provide a special award to the Nippon Foundation in recognition of their support to the Higher Education project in the East Asia region.

7. A meeting of the coordinators of higher education programmes will be organised in September to fine tune activities for implementation under the new project cycle 2015-18.

8. Hans Welling, Advisor, Regional Development will organise regional consultations meetings in East Asia, West Asia, Latin America and the Pacific regions to facilitate them to register the respective regions as legal entities.

9. Will send Nomination Forms in favour of the EFA-VI Global Campaign and Higher Education for the 2016 Zero Project Awards.

10. The International Organising Committee of the ICEVI – WBU Joint Assemblies 2016 will meet in Orlando in November 2015 to finalise the programme for the General Assemblies. Call for Papers for the ICEVI Day presentations has already gone to members and the abstracts will be finalised by January 2016.

11. Meeting with the Webel Mediatronics, Kolkata and the Texas School for the Blind, USA regarding the preparation of Mathematical video packages based on ICEVI's publication "Mathematics Made Easy for Blind Children".

12. Developing Technology project application for grant and also implementing it in some pilot countries.

13. Publishing the October 2015 issue of the ICEVI E-News.

14. Publishing the July 2015 issue of The Educator.

15. Improving the Data Management System of ICEVI and providing access to EXCO members to view more folders.

16. Revamping the website of ICEVI as per the recommendations of the ICEVI EXCO.

17. Participation in the working group meetings of the IDDC, UNICEF and UNESCO.

18. Revising the ICEVI-WBU Joint Education policy statements through sub-committees.

Presentation by the International Non-Governmental Development Organisations (INGDOs) at the ICEVI Executive Committee
8-9 April 2015 G London

The International Partner Members of ICEVI gave a brief description of their work, what they expect from ICEVI and what they can contribute to strengthen the work of ICEVI, at the meeting of the Executive Committee held in London in April 2015. Following were the key points mentioned by the INGDO partners:

CBM

- CBM priorities are being worked out as per its Global Programme Strategy.
- Post-2015 agenda will be a key priority and inclusion of disability in every aspect of Post-2015 initiative will be supported by CBM.
- Inclusion of disability in efforts to tackle disaster and emergency situations will also be a priority for CBM.
- CBM wants ICEVI to get involved in data collection including disability, participation in discussions on indicators of success etc., in the Beyond 2015 initiatives.
- More advocacy and networking activities by ICEVI are also preferred.

Sightsavers

- Sightsavers' emphasis in inclusion strategies is to demonstrate scalable cost-effective approaches to the development of inclusive education for children with disabilities in their local context.
- Sightsavers is very much involved in the Post-2015 agenda and interested in focusing on disability to get data on percentage of schools accessible, extent of accessible learning, in-service training for teachers etc.
- Sightsavers will support education provision which is accessible, equitable, of good quality and forms a continuum of provision from Early Childhood Care and Education (ECCE) onwards. It will engage in three fields: social development; system development and policy development and will particularly focus on educational opportunities for multiply-disadvantaged young people, including girls with disabilities.
- Access to appropriate educational technology and assisting people to develop the skills to make best use of it is another priority area.
- Sightsavers which has strong presence in Africa and West Asia regions would like to collaborate at the regional level to ensure education for all children with visual impairment.

Norwegian Association of the Blind and Partially Sighted (NABP)

- NABP works in 13 countries in Africa and Asia and 22 projects covering eye care, rehabilitation and capacity building programmes are being carried out.
- Education is going to be one of the key areas of NABP in the years to come and there will be increased funds allocation for education.
- ICEVI experiences will be useful for initiating education programmes at the regional level.

ONCE

- Education is an important area for ONCE.
- The organisation has served more than 500,000 children in the Latin America region in the past.
- Besides direct services, ONCE Foundation for Latin America (ONCE–FOAL) was instrumental in establishing many country level resource centres.
- ONCE works in close collaboration with the ICEVI Latin America region in implementing the EFA-VI campaign.
- It is difficult to get statistics from many countries in the Latin America region.

Perkins School for the Blind

- Education is one of the key areas for Perkins with more emphasis on grassroot level services and training of personnel.
- Latin America, Asia, Africa, Middle East and Eastern Europe are the regions where Perkins has a presence.
- Multiple Disabilities and Visual Impairment (MDVI), the Education leadership programme, Technology, online education etc., are the main service areas of the organisation.
- Perkins assumes responsibility for the editorial work of The Educator in collaboration with the ICEVI Secretariat.
- Perkins is looking forward to working with ICEVI for furthering the Technology project.

The Royal Dutch Visio

- The Royal Dutch Visio is active in 15 countries, mainly in the Eastern Europe and Africa regions and currently implementing 21 projects.
- Visio wants to see the impact of the projects, which can be shared with its donors.
- The objective of the Royal Dutch Visio is to invest in programmes for a longer period than simply running them in project mode.
- Rehabilitation is also a mandate area besides education.
- They are already working in Palestine alongside CBM and ICEVI.

WBU-ICEVI Joint Assemblies 2016

18 - 25 August 2016 H Rosen Centre Hotel, Orlando, Florida, USA

Host Organisation:
National Federation of the Blind (USA)

ICEVI DAY, 22nd August 2016

Theme for ICEVI Day:
Education For All Children with Visual Impairment: Beyond 2015

The **International Council for Education of People with Visual Impairment** and the **World Blind Union** will be jointly holding their General Assemblies at the Rosen Centre Hotel in Orlando, Florida, USA, from 18th to 25th August 2016. The Joint Assemblies will include an ICEVI Day on Monday 22nd August 2016 that will be dedicated to conference-style papers and workshops. The Schedule for the WBU-ICEVI General Assemblies is as follows:

- Thursday, August 18 – **Meetings of the WBU Executive Committee and other WBU Assembly Committees**

- Friday, August 19 to Monday, August 22 – **WBU Assembly proceedings**

- Monday, August 22 – **ICEVI Opening Ceremony, ICEVI Paper Presentations**

- Tuesday, August 23 – **Joint WBU-ICEVI concurrent sessions**

- Wednesday, August 24 – **Joint WBU-ICEVI concurrent sessions, ICEVI Regional Committee meetings, WBU/ICEVI Closing Ceremony and Gala Dinner**

- Thursday, August 25 – **ICEVI General Assembly and Executive Committee meeting**

Programme Committee's invitation

Theme for ICEVI Day

The theme of the ICEVI Day is **"Education for All Children with Visual Impairment: Beyond 2015".** The theme highlights the United Nations 2000-2015 education Millennium Development Goals (MDGs) and Education for All (EFA) goals that have guided global and national efforts to achieve universal primary education and gender parity by 2015. With the 2015 MDGs deadline rapidly approaching, the United Nations and international community set to work to create a new global development and sustainability agenda. The Beyond 2015 education agenda encompasses a vision of access to all and rights-based perspectives on equity and inclusion. The Beyond 2015 education agenda includes particular attention to gender equity and overcoming all forms of discrimination in and through education.

Presentation Topics

Papers are invited on all aspects of education for children and youth with visual impairment including, but not limited to, the following:

- Parent and family perspectives, e.g. building family support systems, the role of parents in education, parent impact on community, formation of parent groups

- Early childhood intervention or Early childhood care and education (ECCE)

- Before-school or preschool education

- Awareness creation and advocacy in education of children with visual impairment

- Inclusion or inclusive educational practices

- Educational equity for girls and women

- Curriculum alignment or adapted instructional materials

- Access to curricular and extracurricular areas or the expanded core curriculum

- Teaching mathematics or science

- Literacy or alternative formats (braille, large print or electronic)

- Orientation and mobility

- Social, life or independent living skills

- Career education
- Access to sport, physical education or recreational activities
- Education options for out-of-school children with visual impairment
- Transitions: Home to school or school to adult life
- Education for children with visual and multiple disabilities (MDVI) or deafblindness
- Low vision
- Access to mainstream or adaptive/assistive technologies
- Innovation and emerging technologies
- Principles of universal design in education
- Innovation in the provision of support services or use of community resources
- Personnel preparation - education of teachers or other professionals
- Role models and mentors
- Higher education - opportunities and challenges
- Alternative education models for young adults
- Tackling adult illiteracy among persons with visual impairment

Type of Presentations

The Programme Committee invites the following four types of presentations:

1. **Paper presentations**
   Paper presentations of 15 to 20 minutes duration, relating to one of the ICEVI Day topics. The presentation format may include a demonstration, discussion or lecture.

2. **Interactive workshop presentations**
   Interactive workshop presentations of 40 minutes duration, providing opportunities for the active engagement of participants.

3. **Video presentations**
   Video presentations of 20 minutes duration, with an extra 10 minutes for discussion, showcase one of the ICEVI Day themes. Video presentations may be a suitable option to presenters who speak languages other than English.

4. **Poster presentations**
   Presenters will be provided with a dedicated space during the ICEVI Day to present their poster, to interact with delegate and to answer questions.

Audio-Visual Devices

The following equipment will be available for all types of presentations: computer and data projector, single slide projector, video, DVD, overhead projector and LCD projectors.

Translation

Simultaneous translation will not be possible for the concurrent sessions. People wishing to present papers in languages other than English may send a request to the Programme Committee, which will explore the possibility of arranging translation, but this cannot be guaranteed.

Key dates

- Committee feedback to authors who have already submitted abstracts: **January 31st 2016**.

UEB: Change to Secure the Future of Braille

Mary Nelle McLennan, Vice Chair, Braille Authority of North America (BANA), USA

"They say that time changes things, but you actually have to change them yourself."

- Andy Warhol

In the late 1980s, the future of braille was uncertain. Some noticed it. A few talked about it. Most were baffled by it. Two visionaries and leaders in the braille community, unwilling to leave it up to time or chance to bring change, sounded an alarm.

A Challenge to Act

Dr. Tim Cranmer and Dr. Abraham Nemeth created a stir with an insightful memo to the Braille Authority of North America (BANA), the organisation responsible for setting the rules and guidelines for braille codes in Canada and the United States. Twenty-five years later, that memo has resulted in the adoption of a unified braille code by all eight member countries of the International Council on English Braille (ICEB).

In their petition to BANA, Dr. Cranmer and Dr. Nemeth described the "disarray into which the Braille system" had devolved and cited the "proliferation of braille codes" as the primary cause. After a clearly stated warning of the potential erosion of braille, Cranmer and Nemeth encouraged BANA to take action by developing a unified braille code. They wrote, "It is important not to be intimidated by the prospects of such changes. Changes are not made for the sake of change but for the act of improvement… The benefits of a uniform braille code would far outweigh any temporary inconvenience that might be caused by the shift." Their treatise is available on the ICEB website at http://www.iceb.org/cranem.html

From North America to the English-Speaking World

Dr. Cranmer and Dr. Nemeth's assertions spurred BANA to form the Unified English Braille (UEB) code project. Established in 1993, it was an exploratory committee to investigate the possibility of bringing together BANA's three official braille codes—English Braille American Edition (EBAE), the Nemeth Code for mathematics and technical material and the Computer Braille Code (CBC) for computer notation. In 1993, the project became international when ICEB assumed responsibility for its development and expanded the task to explore the unification of the braille codes used in all ICEB member countries. At that time, there were seven members of ICEB: Australia, Canada, New Zealand, Nigeria, South Africa, United Kingdom and the United States.

Development of a unified code based on the familiar EBAE continued over the next decade. The work was conducted primarily by braille readers of the ICEB countries, with input from transcribers and educators. The resulting product was a complete code that contains all the symbols needed to write literary text, as well as math, science and technical materials, eliminating the necessity for separate codes.

In 2004, the international community voted that UEB was sufficiently complete to be considered an international standard and available for braille authorities of individual countries to vote on its adoption for their respective use. As of 2013, all eight current ICEB countries had adopted UEB, including the newest member, Ireland (Irish National Braille and Alternative Format Association, 2013).

International Implementation

The following section provides a summary of the transition to UEB in the ICEB member countries other than the U.S. The accounts are drawn largely from the country reports presented to the Fifth General Assembly of ICEB in Johannesburg, South Africa, in 2012 and the Mid-Term Executive Meeting of ICEB, Auckland, New Zealand in 2014. These summaries are followed by a more detailed account of the journey to UEB in the United States, the last of the original ICEB countries to adopt the unified code.

In May 2005, Australia became the first country to adopt Unified English Braille and initiated a phased, five-year transition timetable. In 2012, Australia reported a full transition to UEB, which largely ran ahead of schedule (Simpson, 2012). The Australian Braille Authority (ABA) led the development of the 2010 and the 2013 editions of *The Rules of Unified English Braille*. This publication, which has come to be known as The UEB Rulebook, is an authoritative elaboration of the rules of the code. Australians have also developed a range of training materials to assist teachers and transcribers learning the new code and are developing rules and guidelines for formatting braille material (Simpson, 2014). Working with colleagues in New Zealand, the ABA established the *Trans-Tasman Certification of Proficiency in UEB,* a shared process for certifying transcribers. The examination is conducted annually (Simpson, 2014).

New Zealand followed shortly after Australia, adopting UEB in November 2005 and approached the transition with a plan addressing four areas: curriculum support, teaching of adults, production and library services (Reynolds, Bellamy, Stevens, & Smith, 2012). The implementation of UEB began on January 1, 2008, preceded by two years of planning and followed by four years of phased transition, completing a successful implementation

(Stevens, 2012). Young students beginning to learn braille received all their materials in UEB while only new materials were produced in UEB for secondary level students making the transition. An exception was made for students who needed continuity of the Nemeth Code for math and science. Existing library collections were retained and new acquisitions were produced in UEB. The newly developed Simply Touch and Read (STAR) program provided instruction for adults new to braille. (Reynolds et al, 2012). The well-received *Hitchhiker's Guide to UEB,* which provides literacy and numeracy reference materials and examples, was first published in 2007 and updated in 2013 (Stevens, 2014). As stated earlier, New Zealand worked with Australia to establish a shared process for certification of transcribers.

Nigeria also adopted UEB in 2005. According to the country report provided to the ICEB Fifth General Assembly (Obi, 2012), Nigeria began distributing information about UEB in 2008 and in 2009, two major braille producers began to transcribe books in UEB. Between 2012 and 2014, workshops and meetings were impeded due to lack of funding as well as personal and community security issues. Despite severe limitations, books continued to be produced in UEB and readers were becoming familiar with the code. (Obi, 2014).

South Africa adopted UEB in 2005 and by 2012 had unified all of the country's local codes in accordance with UEB. This code is referred to as the Unified Braille Code (UBC). Initially, UBC materials were produced only for students in the first three grades. After 2008, non-technical materials for all school grades were produced in the unified code and the technical component was phased into lower grades. This transition has progressed well and training sessions continue; however, there is a need to train teachers in the technical aspects of the code (de Klerk, 2012).

Canada, like the U.S., had long used EBAE for literary materials and the Nemeth Code for math and science. On April 24, 2010, Canada became the fifth ICEB country to adopt UEB and did so for all subjects, including math and technical materials (International Council for English Braille, n.d.). Braille Literacy Canada (BLC) established January 4, 2016, as the UEB implementation date, coinciding with the U.S. implementation (Goulden, 2014). Early in their transition, Canadian leaders developed an on-line course to enable braille transcribers to learn UEB. This course, *Update to UEB: A Self-Directed Course to Update from English Braille American Edition to Unified English Braille,* is available on the CNIB website (CNIB, 2012). BLC has established a UEB Implementation Work Group to facilitate the transition. Training and certification are in place through CNIB, which, since April 1, 2013, has produced all of its braille materials in UEB. Rehabilitation instructors across the country are teaching clients UEB using a textbook designed for adults and the implementation is well underway (Goulden, 2014).

Following robust evaluation and discussion, The United Kingdom (UK), through its UK Association for Accessible Formats (UKAAF), adopted UEB in October 2011 as its official braille code. (Osborne, 2012). School implementation of UEB was set for September 2014 and December 2015 is the target for all new braille publications to be produced in UEB. (Townsend, 2014). UKAAF developed two documents to assist with the transition from Standard English Braille (SEB) to UEB—one covers the differences in the two codes and the other summarizes the new UEB signs. In addition, UKAAF produced a guide that provides comprehensive advice for transcribing foreign languages into UEB including an agreed approach for school text books and state exams. UKAAF also developed a guide that provides comprehensive advice on the approach to use when transcribing mathematics into UEB, specifically for educational purposes. These and

other resources are available at http://www.ukaaf.org/braille/ueb. Work continues on a set of guidelines for formatting materials in UEB (Townsend, 2014).

The Irish National Braille and Alternative Formats Association (INBAF) joined ICEB in late 2012. Its initial years of 2012–2013 were spent raising awareness about UEB among the general braille-reading public and working closely with teachers and the Department of Education. INBAF formally adopted UEB on December 2, 2013. The transition schedule indicated implementation for the first three years of primary school beginning in September 2014, followed by the remaining five years of primary school in September 2015 and the second level schools from September 2016. For adult braille readers and families, an introductory campaign was formulated (Stäglin, 2014). INBAF provides resources on its website and has hosted information events in various locations. (Irish National Braille and Alternative Formats Association (n.d.).

Slower Acceptance in the United States

While most members of ICEB readily adopted UEB, the United States moved guardedly. After initial consideration of UEB in 2004, the Braille Authority of North America (BANA) voted to monitor the implementation of UEB in other countries rather than adopt the code. BANA spent the next eight years closely listening to anecdotal reports and gathering information and data from those countries that had adopted UEB.

In 2010, BANA completed a comprehensive strategic planning process. The highest priority was to resolve BANA's position on braille codes and the various options proposed to address the complex issues involved. With that strategic commitment, BANA initiated formal procedures to gather information and data about the need for major braille code changes, communicated with constituents, and obtained feedback about the future direction of braille codes in the United States.

As a result of thoughtful and thorough consideration of the issues, the U.S. members of BANA again considered the adoption of UEB, which was not without opposition and controversy within the U.S. braille community. Support remained strong for the Nemeth Code, which had been the standard braille code for math and science in North America since 1952. Many Nemeth advocates were skeptical of UEB's capacity to accommodate higher math and technical work. During the summer of 2012, the two consumer groups in the U.S. — American Council of the Blind (ACB) and National Federation of the Blind (NFB) — passed resolutions supporting the adoption of UEB as long as the Nemeth Code was retained. Respecting this perspective, BANA members proposed a motion to adopt UEB in its entirety while retaining the Nemeth Code, the Music Braille Code and International Phonetic Alphabet. On November 2, 2012, the representatives of BANA's U.S. member organisations approved that motion and voted to adopt UEB as one of four official codes for their country

The Task of Implementation in the U.S.

BANA clearly recognised that an effective national transition would require extensive preparation and coordination to integrate UEB into the various aspects of using, learning, teaching and producing braille. Before adjourning the three-day meeting in which they adopted UEB, BANA formed a UEB Transition Task Force. Made up of seven Board Members who represented blind consumers, educators, braille transcribers and braille producers, this task force was charged with coordinating an effective transition to UEB. Over the next three years, the task force led BANA member organisations in developing materials, presenting informative sessions in widely varying venues and hosting opportunities to gather input and ideas from the various communities involved with braille. BANA also greatly expanded its website to serve as a rich source of information, training resources and reference materials.

To facilitate the nation's transition to UEB, BANA's UEB Transition Task Force developed a plan with immediate, intermediate and long-range goals in four phases:

2013: Information year. BANA developed and disseminated information about UEB and gathered input from constituents.

2014: Infrastructure year. BANA and other organisations planned for procurement and production of braille materials in UEB and developed training materials.

2015: Instructional year. Readers, producers and educators became proficient in UEB.

2016: Implementation year. All new transcriptions will be produced in UEB; educators will teach the code. Devices and software will fully and accurately incorporate UEB.

In the U.S., education is primarily a state and local responsibility. "It is States and communities, as well as public and private organizations of all kinds, that establish schools and colleges, develop curricula and determine requirements for enrollment and graduation." (U.S. Department of Education, 2012). The 50 states that make up the US vary widely in the systems, resources and infrastructures through which they provide educational instruction and materials. It was obvious that states would, out of nature and necessity, move through the transition at different paces and in different patterns. And it was equally obvious that collaboration and idea sharing would benefit all involved.

Planning for the nationwide implementation of UEB took a huge step forward in October 2013 when BANA hosted its first UEB Transition Forum, held in conjunction with the Annual Meeting of the American Printing House for the Blind (APH). Representing 31 organisations from

the national braille community, 48 delegates met to assess the systems and resources available and how BANA could help them make the transition.

The Forum was a full day of collaborative planning designed to help the represented organisations determine the steps and timetable through which they would make the transition to UEB. This unique gathering provided a rare opportunity for delegates from various braille-related entities to meet face-to-face for a large block of time. The ambitious agenda organised the participants into facilitated workgroups through which they identified and prioritised actions and strategies in the following areas:

- Quality UEB training for transcribers, proofreaders and educators;
- The building of UEB transcription capacity;
- System adjustments for the procurement and delivery of braille materials in UEB;
- Smooth transition to UEB for children's braille reading and writing instruction and educational assessments;
- Smooth transition of adults' braille instruction to UEB and increased knowledge of UEB among adults who already use braille.

Based on extensive dialog and planning that involved more than 30 organisations as well as individual consumers, teachers and transcribers, BANA, at its November 2013 meeting, established January 4, 2016, as the date by which the United States will implement UEB. Individual states and organisations initiated their detailed planning and training efforts and the transition was underway!

Creating the UEB Infrastructure in the U.S.

In 2014 and 2015, BANA again sponsored the UEB Transition Forum, which has supported state departments of education, specialised schools, instructional materials centers, transcribers and other agencies in laying foundations for collaboratively crafting timelines

and plans for their respective transitions. The work accomplished at the three UEB Transition Forums assisted the braille community in adjusting their infrastructures that produce, deliver and teach braille and in developing strategies to help braille users become familiar with changes in the code.

Training of teachers and transcribers as well as the development of training opportunities as part of individual state transition plans have been high-profile endeavors across the U.S. BANA member organizations who have conducted numerous training events throughout the country and have developed on-line training modules and resources. The National Library Service (NLS) of the Library of Congress has finalized its examination processes for certifying transcribers who are proficient in UEB.

As with any significant systemic change, the U.S. has encountered complex issues and divergent perspectives. The two "stickiest wickets" have been related to states' standardised assessments of students and to the question of which code is best for math, science and technical materials.

Each state will need to determine which assessments will be provided in EBAE, which in UEB, which in Nemeth, which in Nemeth with UEB text (that is, according to the provisional guidance document) and which assessments will be provided in multiple codes…. States can anticipate that most students participating in testing that first year will be using current codes, particularly older students with more established literacy and numeracy skills. Over time as more students learn UEB, the assessments will need to reflect that change. State testing coordinators and other state leaders will need to work closely together to determine that students receive assessments in the same codes they are using for instruction. (D'Andrea, 2015).

Anecdotal evidence from other countries that have adopted UEB suggests that the transition took less time than expected; it is possible that reading tests and other "nontechnical" topics will need to be produced in multiple codes for only a few years. After that time we can expect the assessments will be available in UEB for students in the early grades and then with increasing availability for older students. (D'Andrea, 2015).

The braille code to be used for math and technical materials in the U.S. remains a confusing issue, as D'Andrea explains in the *Unified English Braille Implementation Guide:*

> The plan to adopt UEB while maintaining Nemeth code puts the U.S. in a unique global position. It has also led to some understandable confusion. As stated earlier, UEB is one complete code; the United States did not only adopt the "literary" part of UEB but adopted UEB in its entirety. UEB contains symbols and rules for mathematics, yet the U.S. is also maintaining Nemeth code. While the transcription of 'literary materials' in UEB creates braille that is quite readable because of its similarity to EBAE, that is not the case with math materials. The Nemeth code, used in the United States since the late 1950s, places numbers in the lower part of the braille cell and has a unique set of symbols and rules. UEB uses numbers in the upper part of the cell and has newly created math symbols since none existed in the current 'literary' braille codes such as EBAE upon which UEB is based. (D'Andrea, 2015).

As of late 2015, BANA has not established a single standard code for technical materials in the United States. (Braille Authority of North America, 2015). To facilitate the incorporation of the Nemeth Code in UEB contexts, BANA developed a guidance document that supports its intent that the Nemeth Code will continue to be integral to braille in the United States. The document *Provisional Guidance for Transcription Using the Nemeth Code* within UEB Contexts is available as PDF and BRF files on the BANA website at www.brailleauthority.org/ueb.html .

Concurrent with the obvious focus on the implementation of UEB, BANA continues its work on other ongoing projects. BANA has adopted guidelines for the transcription of foreign language materials in UEB, and the Braille Formats Technical Committee is nearing completion of the revision of the formats guidelines, bringing them in compliance with UEB. Other BANA technical committees are also revising BANA guidelines to align them with UEB.

A Secure Future

It is the good fortune of current braille readers and of readers yet to come that a hardworking cadre of dedicated and talented advocates did not wait silently for time to "change things." By their willingness to boldly to make the choice to change braille, together, we have made great strides in securing its future.

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How to Train Teachers of Children With Deafblindness:
A Journey of Training to Learn and Learning to Train

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Introduction

When organizing teacher training courses, it must be remembered that adults learn differently from younger students with specific needs, which should be taken into consideration. Drawing upon the pedagogic principles of Malcolm Knowles (Knowles, Swanson, & Holton, 2005), this paper is a practice-based report on how we applied these principles of adult learning when training a group of teachers from the Philippines. They are useful guidelines for creating effective training experiences that will enhance the learning of participants. In addition, this paper also explores new ways of keeping in touch with teachers from a distance through technology.

The Need for Teacher Training

Teachers play a crucial role in the education of the next generation. Good teachers must acquire a rich knowledge of their subject areas and they also need to learn how to teach. Their knowledge, skills and attitudes have a great impact on their students' ability to learn. This is particularly true when teaching children with deafblindness. Effective teacher training in the area of deafblindness provides teachers with the specific knowledge, insights, experience and skills they need to design activities and build programmes that fit the individual needs of their students.

When planning and designing a training course for teachers, the following questions arise:

- How do we train and prepare teachers effectively in the field of deafblindness?
- What makes a training course effective?
- What elements should a good training course include?
- How does one know the teachers have benefitted from the training?

These are all crucial questions to bear in mind when planning and conducting a training course. Additionally, trainers need to be aware that adults learn in different ways from children, so teaching, training and support systems must be different.

In the early 1970s, Malcolm Knowles identified six principles of adult learning and we have used them as guidelines in designing and developing a training course for teachers of students with deafblindness in the Philippines. This paper will outline how each of the following principles has been applied:

- Adults are internally motivated and self-directed;
- Adults bring life experiences and knowledge to learning experiences;
- Adults are goal-oriented;
- Adults are practical;
- Adults are relevancy-oriented;
- Adult learners like to be respected.

Organisation of the Teacher Training Course

We conducted our teacher-training course in the Philippines over a period of two and a half years. There were three phases. First, there was an initial course in the capital, Manila, where all teachers came together for a three-day training. Second, the initial course was followed up with monitoring visits. The trainers visited each teacher in their classroom about half a year after the course. Finally, about eight to ten months after the visits, there was a second two-day training course in Manila.

HOW WE APPLIED THE PRINCIPLES OF ADULT LEARNING

Adults are internally motivated and self-directed

Adults like to be the captain of their own ship and like to set their own course. When they feel that others are imposing information or ideas on them they often tend to resist learning. Therefore, participants of a training course should be included as active participants rather than passive listeners.

Lectures with long PowerPoint presentations are not the most effective way to teach a group of adults. When planning a teacher training, the key concepts are engage and involve. Instead of lecturing to them, get the participants actively engaged and involve them in different ways. For instance, involve them in the planning phase by sending out a pre-training questionnaire and then use their responses. Assign preparatory tasks. If this is not possible, make sure to review the programme and discuss expectations at the beginning of the course.

After the first three-day course in Manila, the trainers realised there were quite a few lengthy PowerPoint presentations. Although there were some group discussions and assignments, there were hardly enough to fully engage and involve the audience. During the second course the trainers' presentations were kept to a minimum. There was much more participant involvement, with simulations, reflective exercises, video analysis, case studies and the exploration of available resources on the web. This fostered the adult learner's internal motivation to learn and provided opportunities for more self-directed and responsible learning.

Adults bring life experiences and knowledge to learning experiences

While formal training courses may have their drawbacks, there is great value in bringing a group of teachers together. Teachers of children who are deafblind often feel quite isolated. Deafblindness is a low-incidence disability and often there aren't any other teachers nearby to consult and share with. A formal course provides a wonderful opportunity to meet other teachers, develop relationships, share experiences, and to learn from and support one another. Each teacher brings a wealth of experience and insights to the group and a trainer should tap into this wealth by creating opportunities for discussions and sharing. This enables each participant to reflect and build upon their own existing foundation of knowledge and experience, to generate new knowledge, concepts and ideas and sometimes even to challenge existing misconceptions.

It's been a joy to see relationships between teachers grow and friendships develop over the course of the training. In the Philippines' small but far-flung field of deafblindness education, these connection are so rare but so necessary. During the course, teachers were keen to share their experiences; for example, each teacher shared about the functional activities they do with their students back home, giving culturally appropriate ideas and inspiration to their colleagues.

Adults are goal-oriented

Adults get ready to learn when they experience a need to learn. They want to know how the material in the course will be useful to them. A trainer needs to facilitate opportunities that connect the dots between theory and practice.

A reflection diary is a practical tool to help participants integrate with what is learnt. After each topic, every participant answers written questions, summarizing the newly gained knowledge and considers how it relates to the circumstances in their own schools. During the second course, to make this exercise more meaningful, we added a brief time for discussion, where the teachers paired off and shared the answers to their questions.

At the end of the first training course, these reflection diaries were used to make a three-point action plan on how to apply the new knowledge to the classroom situation back home. Unfortunately, during the monitoring visits after the first course, we realized that most of the action plans were worded in vague terms and did not serve as guides for action. We learnt that a clear explanation of the expectations should be given at the start, in order to make the action plan a dynamic set of objectives. The trainers should meet each teacher at the end of the first training course, to review the action plan before she returns home.

Adults are practical

Adults should know that the new knowledge applies to their work. Hands-on exercises and collaborative brainstorming help adults move from classroom and textbook mode to real-life problem solving. Throughout a course there should be opportunities to practice and apply newly-gained information and knowledge. For instance, when a form is introduced, the assignment can be to practice using that form. Watching and analysing videos also create good opportunities for hands-on practice. Videos of exemplary practice can be inspiring and will help participants identify steps towards good practice. Other videos could be used for brainstorming sessions, answering questions like: "What could be done differently to improve the situation?"

Another practical way to engage and involve participants is through case studies. During the second round of training in Manila, we addressed the topic of functional assessment. We used video footage of a course participant working with her student. Those videos served as a case study to practice doing functional assessments in several areas. This learning experience proved to be very effective, especially because the teacher herself was present and able to answer questions and provide background information.

Adults are relevancy-oriented

Adult learners want to know that the course material is relevant to what they want to achieve. The reflection diary and action plans mentioned above are tools that support the adult learner in their quest for practical and relevant knowledge. Other tools are a pre-training questionnaire or task, a review at the start of the training (both previously mentioned), as well as regular checks for meaning, understanding and relevance throughout the course. This feedback enables the trainer to tailor the content and learning experiences throughout the course.

The follow-up monitoring visits approximately half a year after the first course added an extra dimension to relevancy. A visit started with observation of the teacher as she gave a lesson or did an activity with her student(s). After the observation, time was scheduled for discussions and questions. There were often very lively, with many questions, ideas, suggestions, brainstorming and problem-solving. These visits provided rich opportunities for individual coaching, specific feedback and recommendations that were relevant to the needs of the students, the classroom set-up and the school. The visits also allowed the trainers to see whether the participants were able to use and implement the information, knowledge and skills covered during the first training and also generated ideas for relevant topics for the second training.

Adult learners like to be respected

Adult learners like to be viewed as equals and treated more as colleagues than as students. Trainers should demonstrate respect by taking an active interest in the participant's development and by acknowledging their wealth of experience. They should encourage the participants to express their ideas, thoughts and feedback throughout the course.

Regarding the monitoring visits, it can be rather intimidating for a teacher to have two or more

people in her classroom, observing her every move. Therefore, it is extremely important that the visiting trainers treat her as an equal and an expert in her classroom. Very helpful questions to introduce at discussion time are, "What went really well during this activity?" and "What were you particularly proud of today?" This invites the teacher to share her insights and thoughts, allowing her to set the course and tone of the conversation.

Challenges

The main challenges in organising and conducting a series of trainings are costs and time. Gathering a group of teachers from all over the Philippines together in Manila and accommodating them in a hotel for several days involves significant costs. For quite a number of teachers, it involved long journeys by plane, bus and ferry. Monitoring visits can also be relatively expensive and time-consuming, especially when it involves travel to different islands and remote areas.

To reduce expenses, it is worth exploring new ways of keeping in touch with teachers from a distance. One of the teachers that participated in the course was willing to try monitoring via Skype. We found that the most effective way to organise this is for her to send short videos of herself with her student while doing an activity. The trainer views this footage and prepares questions, suggestions and recommendations to discuss during the Skype meeting.

The four sessions so far have been successful, with lively discussions, many questions and lots of ideas and suggestions shared. Factors that enabled this success include: an established relationship between teacher and trainer, a technology-savvy teacher and co-operative school management. On the downside, there are also challenges when the internet connection sometimes suddenly drops, the signal is not strong enough to support video conferencing, when video files are too big to be sent or are in a

different format. However, as technology is developing fast, monitoring via Skype is very promising as a way to keep in touch with teachers from a distance.

Conclusion

In conclusion, recognizing the unique learning needs of adults helps to create a teacher training programme that is engaging and effective. The principles of adult learning will guide and support trainers who want to effectively include participants, from the early stages of planning a training course through the implementation stage. Technology (like Skype and video sharing) can provide new ways of keeping in touch with teachers from a distance. As these are cost effective and less time consuming, they are promising tools for the future.

The active learning credo by Mel Silberman (1996) sums up the journey of training to learn and learning to train:

What I hear, I forget.

What I hear and see, I remember a little.

What I hear, see and ask questions about or discuss with someone else, I begin to understand.

What I hear, see, discuss and do, I acquire knowledge and skill.

What I teach to another, I master.

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Special Educational Support for Children with Multiple Disabilities in Ukraine:
Expertise at Nadiya, the Specialised School for Children with Multiple Disabilities

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Education of children with multiple disabilities is considered to be one of the most vital areas in special educational theory and practice in Ukraine. According to Ukrainian legislation, education of children with profound multiple disabilities within specialised educational institutions (so called boarding schools) is conducted on an individual basis. This is either in specialised classes or at home, if a child is not able to attend school. Individual home-based education has become an effective form of teaching children whose disabilities prevent them from attending school.

It is challenging to create effective methods and forms of corrective educational intervention for children with severe multiple disabilities. These children experience extreme difficulties in the educational process, in particular those who have a combination of visual impairment, intellectual disability and musculoskeletal disorders.

Multiple disabilities are the combination of two or more primary disabilities, such as vision loss and cognitive disability. This combination of primary disabilities can create secondary disabilities, e.g., difficulties in concept development caused by lack of visual perception can be amplified and complicated by the impairment of mental analysis caused by cognitive disability. Together they create delays in a child's mental development and a reduction of compensatory abilities.

This articles presents some of the experiences of the staff of the Ukrainian school, Nadiya (Hope).

Nadiya has been providing special educational services for children with multiple disabilities for the last twenty years and is currently the only one of its kind in Ukraine.

Nadiya was originally established as an educational institution for children, who could not be educated at comprehensive special schools, because they had severe physical and mental disabilities. At the present time, the school embraces children with visual impairments, learning disabilities, loco-motor system disorders, emotional-volitional disorders, epilepsy, autistic spectrum disorders, behavior problems and various other syndromes. There are now 250 children with multiple disabilities at Nadiya, all of whom receive home-based educational services. Among them, 143 students are taught according to the program for children with learning disabilities and 62 children have individual educational programs. Those children who are able to come to school attend individual or group speech therapy classes, as well as foreign language and IT classes. They may also work with a psychologist and vocational and recreational therapists.

The major mission of Nadiya School is to support the educational needs of children with multiple disabilities, by developing social and personal skills and benefitting from social and psychological rehabilitation and vocational training. Nadiya emphasises general human values, preparing its students for future social integration and transition to adult life. M.V.

Zhigoryeva (Zhigoryeva, 2006) interprets pedagogical assistance as practical implementation of pedagogy, focused on improving child's social competence. In other words, special educational techniques further the goal of teaching a child most important skills of social behavior.

In this article we present a case study to showcase principle ideas and results of individual home-based education practiced at Nadiya School. The case study methodology includes:

- Getting familiar with a particular case;
- Studying medical and personal records of a child;
- Pedagogical and psychological assessment;
- Interpretation of the collected data;
- Selection of the tools and forms of educational support;
- Summarising.

Case Study of Marta S.

Marta S. is being raised in the family of a guardian. At the time of the initial observation in 2014, the girl was 8 years and 7 months old. Her medical history was collected from medical records, her personal profile and from the records of the psychological, medical and pedagogical counseling board.

Medical diagnosis

Musculoskeletal disorder, cerebral palsy, spastic quadriaparesis, mild mental retardation, optic nerve atrophy, astigmatism and alalia.

Early psychomotor development was significantly delayed because the child had been raised in a problem family and was neglected in her first year and a half of life.

Motor skills

Neurological diagnosis includes abnormal muscle tone, spasticity and muscle stiffness.

Marta had gross and fine movement disorders. Hand and finger movements were limited and she could not move the thumb away from the rest of her fingers. She could not grasp objects and her arms were pressed against her body.

Vision

Marta had deficient eye-movement coordination. She was not able to focus on an object or trace moving objects.

Emotions and behavior

Marta mainly demonstrated positive emotions (quiet laughter, smiling to various sounds), unless she was tired. She had no self-care skills and was fed pureed food.

She was hypersensitive, easily becoming emotionally and physically excited. She used to react with increased muscle tension to new stimuli, turning her head to the side, slightly twitching, which resembled a saccadic attack.

Cognitive abilities, speech and language development

Marta exhibited low cognitive activity, and lacked interest in the surrounding world. Her attention was attracted only by loud sounds and she had no interest in objects and toys. Her object-operating actions had not been developed. She had limited attention span and tired easily.

The girl showed little interest in the speech of adults around her. Marta experienced significant difficulties in understanding addressed speech and did not always react to her own name. Although she spontaneously made undifferentiated sounds, she had no babbling speech at the time. She experienced muscle tightness in her lips, tongue and cheeks and had increased salivation.

Content and Settings of Marta's Educational Intervention

Based on the results of the assessment and observation, Marta's team created an individual education program for individual home-based corrective (special educational) work. She receives the following services: classes with a

special teacher (defectologist) three times a week, speech therapy classes once a week, recreation specialist twice a week and a ten-session course of massage three or four times a year.

Corrective educational work carried out by the Special Education Teacher:
- Development of motivation for purposeful activity;
- Development of appropriate emotion reactions;
- Development of eye-movement coordination, audio attention and hearing perception;
- Development of hand movements, natural hand and fingers posture, grasping movements, fine motor skills development, development of touch, tactile sensitivity and perception;
- Learning how to manipulate objects;
- Learning to understand addressed speech;
- Learning to hold head straight when sitting;
- Development of precondition for expressive communication: singing and repeating vowels and other sounds (Novikova-Ivantsova, 2010), repeating simple words.

Classes with a special teacher last for 1.5 or 2 hours depending on the child's physical and mental condition, mostly in the mornings. All classes are individual. Furniture tailored to the child's needs is used at every lesson. Special educational work also involves music and art therapy techniques, elements of reflex therapy and kinesitherapy.

Parents play a significant role in individually tailored home-based education services for children with multiple disabilities. The effectiveness of an educational program depends on parental involvement in the rehabilitation process and implementation of the individual educational program. Therefore cooperation with the family members is our first priority at Nadiya School.

Working with Parents

Marta's mother was present for her first lessons, so she could learn the structure of the lessons and their content. The parents have been involved in certain elements of the lessons: hand massage, playing games and practicing tasks introduced during the lessons, reading stories and tales, teaching basic self-care skills, preparing teaching material where possible, stimulating Marta's communication activity and encouraging her to repeat sounds, syllables etc.

One year later it is possible to measure progress in Marta's development:
- Once familiar with her special teacher, she shows positive emotional reactions in her presence (smiling, actively moving in the wheelchair).
- Marta's cognitive activity and motivation has improved: she now has her favorite toys, she manipulates objects and she reacts positively when she manages to complete the task.
- Marta is able to hold her head up, lifts her head when she hears her name and emotionally reacts to spoken language.
- Eye-movement coordination has improved. Marta shows reactions to changing light conditions, briefly looks at the objects within her vision field, grasps familiar objects, traces bright colourful objects with her eyes, recognises familiar people and knows if a newcomer is a stranger.
- Marta tries to grasp objects. She moves her arms to the left, to the right, is able to lift her arms a few centimeters up, pulls arms to her body. She is learning to control tension in her muscles; during intense muscle spasm, she can relax them if asked by an adult.
- She pronounces vowels, independently says syllables which can be paired with objects or actions and gets involved in communication interactions.
- Marta now sits in her wheelchair and holds her head straight.

While the educational needs and learning abilities of children with multiple disabilities may be limited, Marta's case show that these children can make progress in their development and learning. Favorable educational conditions include positive surroundings, individualised educational programs, educational tools and techniques corresponding to child's individual learning needs and availability of the necessary educational and therapy services.

Based on children's and families' needs analysis, we can identify the major directions of educational work with multiply disabled children in Ukraine:

- Development of self-care skills, independent functioning skills and communication skills;
- Expanding knowledge of the surrounding world, concepts development, teaching age-appropriate activities;
- Mastering content of the relevant correctional educational program, taking into consideration individual abilities of the child;
- Psychological support for the parents and teaching them how to use educational tools and techniques and especially how to communicate with their child.

In this regard, the skills to create and implement an individual educational plan is a crucial element of a special educator's professional profile. There are some general guidelines for planning individual educational support for children with multiple disabilities:

- Assessing the developmental level of a child according to the primary disability and identifying areas requiring particular attention;
- Performing a general assessment and identifying learning abilities of a child;
- Setting educational and developmental goals;
- Defining the child's preferences, in order to start with educational intervention;
- Applying appropriate therapies: music, art, vocational, reflex and kenesis work, sandplay, use of fairytales and other types of therapy;

- Using play activities for teaching, choosing age-appropriate activities;
- Conducting a functional vision assessment and choosing teaching aids appropriate to child's vision;
- Selecting special educational techniques depending on child's motor skills;
- Using practical tasks depending on child's intellectual abilities;
- Using special technical aids and computer technologies;
- Implementing competence-based approach;
- Using residual and intact senses in order to stimulate impaired functions.

Currently Ukraine is going through a transition in its political, social and economic development. These changes greatly affect all spheres of its social life, especially those related to social care and education of underprivileged citizens. At the same time, special education itself is undergoing major reforms. As the Ukrainian educational system moves toward inclusion and integration of children with disabilities into mainstream educational settings, the specialised school system faces new challenges. However, home-based education creates secure and favorable conditions for children with profound multiple disabilities and both special educators and parents have come to realise that there's an ongoing need for the educational and medical services provided only by a specialised school such as Nadiya.

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From Misdiagnosis to Correct Diagnosis:
A Case Study in Chennai, India

Prasannan Srinivasan, Officer-Training, Sense International India

Early Stage

Selvi got married to her maternal uncle's son. She gave birth to a beautiful angel with total blindness who was named Jyothi (light). The father was disappointed and never loved nor even touched the baby. Conflicts rose between the parents. Selvi, a mother full of love, hope, strength and courage, decided to bring up the child on her own. Selvi came back to her mother's house with Jyothi.

Caterpillar

Jyothi grew up happily under the loving care of her mother and maternal grandparents. She was admitted to a renowned school for the blind in India. The first two years of schooling went well without complications. However, it was noticed that Jyothi always stayed next to the teacher, was afraid to touch fur toys and was not active in outdoor games. The teachers and administrators considered these issues insignificant at the time, since the focus was on academic skills.

When the time came for Jyothi to read and write braille, the hidden problem became evident. When she was given a braille slate and stylus, she couldn't understand what to do and punched all over the sheet on her own. Jyothi's teacher reacted by becoming strict, forcing her to read and write braille. This, in turn, made her fearful about touching the braille materials and she developed an aversion towards touching objects in general. Jyothi was labelled as having tactile defensiveness and problems in fine motor development.

Her teachers concluded that Jyothi had additional sensory issues. Day by day their complaints about Jyothi increased. Schools in India are not permitted to expel any student, but they can make it hard to stay. The administration of Jyothi's school put pressure on her mother by calling her frequently to the school and repeating their negative assessments. Finally her mother decided to remove Jyothi from that school.

Chrysalis

Selvi explored many schools and in the year 2010 came to the Sadhana Unit for the Deafblind Multihandicapped at the Clarke School, Chennai. There she met Srinivasan, a special educator trained in deafblind education and a graduate of the Perkins Education Leadership Program (2005-06). He received Jyothi warmly and performed a functional assessment in a variety of activities and situations.

The assessment revealed that Jyothi did have some challenges. She had no awareness of spatial concept and no associated meaning for numbers. Although she exhibited some fear of touching new things, she was a very bright student with some autistic tendencies. However, Jyothi does not have any tactile defensiveness and is infact very curious about everything around her. Neither did she have any fine motor problems. Her talents were impressive; she was able to keep all the braille dots of English and Tamil (regional language) alphabets in her memory and could orally recall them at any time. She had an inborn talent in music and could play the keyboard gracefully. She could remember and recite all the verses from the Bible.

Chrysalis to Adult Stage

Jyothi was put in a small group of five students in the Sadhana unit and she enjoyed all the functional activities she was assigned. The

teaching strategies used consistently were hand-under-hand, known-to-unknown, simple-to complex, repetition and reinforcement.

Staff worked hard at building trust in Jyothi. Any negative feedback made her lose confidence in learning that particular skill and damaged the bonding between her and her teacher. Staff avoided indirect feedback, rhetorical questions and negatively phrased questions (e.g., "Why are you doing this?" "What is wrong with you?"). Jyothi's teachers took care to give her direct commands which described what she needed to do next. She was never forced to touch anything which triggered her fear. However, the fear was gradually removed because her curiosity was stimulated through use of feely bag activity and hand-under-hand exploration.

All the above mentioned strategies were consciously kept in mind while working with Jyothi, with a focus on improving her spatial concepts so that she could read and write braille. A plastic peg board with large size pegs taught her the spatial concepts between the braille dots as well as the meaning for numbers.

After a few months of training, Jyothi understood the spatial concept. Then the size of the pegs was reduced and we continued the training. At this point, it was like the cork in the champagne bottle; when it is removed the champagne fountains out. This small adaptation brought out the talents of Jyothi and she felt much more comfortable in learning to read and write braille.

Now, she could understand the meaning for top-bottom, left-right, middle etc. She showed interest and used her hands and finger pads very well to read braille.

Jyothi was first given a Brailler on which to practice and build confidence. At last, the real braille slate and stylus was given and she learned prewriting skills of increasing complexity and difficulty.

Reading was also taught in a similar manner and thus kindled her interest in learning braille. Once she gained marginal speed in reading and writing, we taught her contracted braille. More and more writing and reading practice was given and when Jyothi encountered a new uncontracted word, she was able to decode it without our prompt.

Butterfly

Mrs.Selvi was advised to tap Jyothi's talents and she succeeded in getting her admitted to the music college. At the end of April 2015, she successfully completed her first year there. Her talent has made her well known among her fellow students. She can identify the name of the musical notes immediately. Even the third year senior students find it difficult to do so.

Jyothi has become the angel of the college. Professors, senior students, classmates, everyone in the college knows Jyothi, appreciate her and praise her talents. They say, "Jyothi is a precious gift to our college."

Jyothi learning spatial concept using large piece of pegs

Jyothi learning to read and write braille alphabets using coins *(much smaller in size)*

This Butterfly brought colours in the life of family members...

Empowering Students with Deafblindness:
Improving Education in Inclusive Classrooms in the Arusha Region of Tanzania

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Deafblind Assistance Services, Tanzania

Introduction

This paper examines the outcome of a project undertaken by the NGO Deafblind Assistance Services (DBAS) in the Arusha region of Tanzania. It aimed to improve access to education for students in inclusive classrooms who are adventitiously blind, low vision or deafblind. The project also focused on improving enrollment and attendance for these students.

The project had two approaches. First, through funding by the XOVA, Deafblind Assistance Services provided eyeglasses and other visual aids, with the expectation that improving students' remaining vision would encourage classroom engagement and performance. DBAS also offered seminars for teachers, families, community leaders and government officials, to increase understanding of the needs and abilities of students with adventitious visual impairments or deafblindness. The goal was to dispel ignorance and stigma about the students' disabilities, thus improving their access to education and community life. From these experiences arose a conceptual framework that explains the relationship between empowerment of children, their parents and leaders and improved access to education.

Deafblindness and Educational Needs

One definition of deafblindness comes from federal law in the United States: "Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programmes solely for children with deafness or children with blindness."

The most helpful approach may be to focus on the students' learning needs and the developmental and cognitive impact of dual sensory losses. "The key feature of deafblindness is that the combination of losses limits access to auditory and visual information. Children with deafblindness require teaching methods that are different from those for children who have only hearing or vision loss." (Parker, McGinnity & Bruce, undated). Deafblindness is a unique disability that cuts one off from environmental information and human interaction and demands specific teaching strategies to empower access to education.

It is encouraging to note the findings of Jim Kyle and Susannah Barnett (2012) in their Final Report on a project funded by the Big Lottery. They found that people who are deafblind consider the key to breaking through their isolation is feeling some control of the environment and their interactions.

Tanzania is among the developing countries which have committed to the United Nations' Millennium Development Goals. Goal Number 2 is Universal Primary Education and Tanzania is working to provide education for all school-age children. Because the UN goals have no

specified frameworks for guiding educators, it is particularly challenging when it comes to implementing changes for children who have deafblindness or multiple disabilities.

There are educational models for children with disabilities, but they come from developed countries where conditions are dramatically different. This creates many challenges in adapting the systems, both for the teachers and for students themselves.

The Project

Because of the complexity of the undertaking, Deafblind Assistance Services decided to focus on the simplest and most basic needs first, in a single region of northern Tanzania. DBAS started with the hypothesis that empowering children with adventitious deafblindness leads to the improvement of learning. We decided to implement this by:
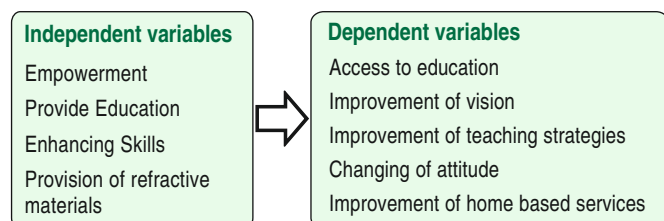
- Empowering teachers of students with adventitious deafblindness in order to improve teaching and leaning processes; and
- Evaluating the usable vision of primary school children with adventitious deafblindness and when appropriate, providing eyeglasses to correct refractive and other vision errors.

Evaluation

In order to assess the success of our approach, we focused on these questions:

1. Did the ability of educators to teach children with deafblindness improve after the training?
2. Do the children with adventitious deafblindness use their vision more effectively after being empowered (fitted with corrective eyewear)?

1.0 Conceptual framework; Variables;

Independent variables	Dependent variables
Empowerment	Access to education
Provide Education	Improvement of vision
Enhancing Skills	Improvement of teaching strategies
Provision of refractive materials	Changing of attitude
	Improvement of home based services

The **target population** is the beneficiaries of the project: students, teachers, leaders and parents. The **sampling techniques** are purposive; involving three parents, three DBAS members, five teachers, three students, two DSOWs, three religious leaders, two DEOs and one government official, for a total of 21 respondents.

Responses were gathered by questionnaire, interview and observation. Tables and charts are included.

Findings

Question 1: Did the ability of educators to teach children with deafblindness improve after the training?

The study shows that children were not getting proper services due to poor knowledge on deafblindness and that the work of this project changed these notions in Arusha region. Table 2 shows that 58% strongly agree and 38.7% agree, with 3.2% not knowing. This success in Arusha highlights the need to expand this project to other parts of the country.

Question 2: "Does empowering children with deafblindness lead to the improvement of learning?"

The results show that all respondents agree: 58.1% strongly agree, 41.9% agree (see table 1). No respondents disagreed. It illustrates that the empowerment of children was successful and improved their ability to learn and participate in the community activities.

Conclusion:

People who are adventitiously deafblind in Tanzania are not involved in low vision programmes because it is not recognised that they have correctable remaining vision. Among deafblind children, almost 70% have usable vision, which can be improved with appropriate eye care services. In some cases, corrected vision eliminates the need for braille, for which support, materials and teachers are extremely

scarce. Corrected vision permits many deafblind students to use low vision devices and large print, which are more easily obtained in inclusive educational settings. Therefore the project shows that when this group is empowered with appropriate tools, they have the capacity to succeed in the classroom and in their communities.

Recommendations

Based on the findings from the DBAS project, the government of Tanzania should improve eye care services to its citizens. People with deafblindness as well as many others will benefit.

NGOs should also pay attention to this neglected group. Donors should be courted for support of services for people with adventitious deafblindness, a group that can perform wonders when empowered.

International NGOs should work with local NGOs, instead of leaving the local NGOs to struggle with few funds and great needs. International NGOs have access to larger pools of funds, which can help solve critical problems as they are identified by locals.

Table 1: Does empowering children with adventitious deafblindness leads to the improvement of learning?

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	58.1	58.1	58.1
Agree	13	41.9	41.9	100.0
Total	**31**	**100.0**	**100.0**	
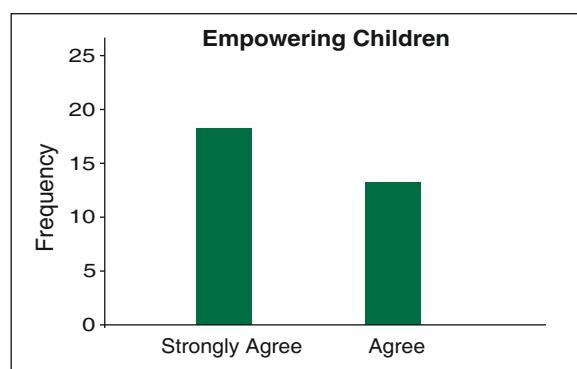
Table 2: Presence of Project

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	18	58.1	58.1	58.1
Agree	12	38.7	38.7	96.8
I don't know	1	3.2	3.2	100.0
Total	**31**	**100.0**	**100.0**	
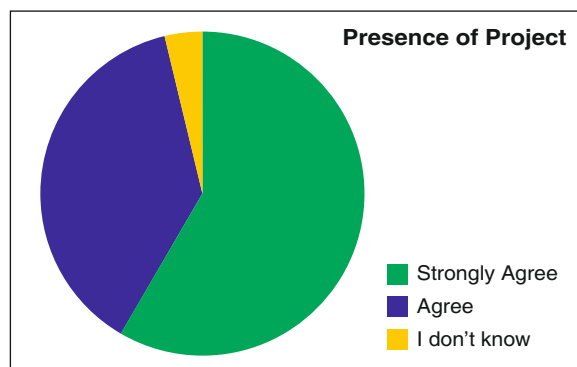
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Inclusive Education in Indonesia:
Strategies for Success

Dr. Didi Tarsidi, Special Education Department, Indonesia University of Education, Indonesia

Introduction

By nature, man is a social being who always wants to be included in a group and will join another group if he cannot be included in the first group. That is to say, a person with disability by nature wants to be included in a "regular" community and only when the community rejects him that he will segregate himself along with other persons with disabilities to form an "exclusive" community. However, the tendency to be in an exclusive community is never permanent as the regular community cannot also exclude them for ever. This tendency to be inclusive is started when both parties realize that they have more similarity than difference.

The segregation of persons with disabilities in Indonesia was started when the first schools for children with disabilities were established during the colonial time at the beginning of the 20th century (the special school for children with visual disability was established in 1901, the first special school for children with intellectual disability in 1927 and the first special school for children with hearing disability in 1930 – all in Bandung, West Java).

In 1952, seven years after independence, the Indonesian government issued the first educational law. The law stipulated that all children of six years of age had the right to schooling and those of eight years of age were compulsory to go to school for at least six years. Concerning children with disabilities, the law stipulated that special education be provided for those who needed it. Demanded by the law, a number of new special schools, including those for children with physical disability and for those with social and emotional disorder, were established.

Currently, according to the statistical data published by the Ministry of Education and Culture of the Republic of Indonesia in 2013, we have at least 2456 special schools for different categories of disabilities (from kindergarten to secondary level) with 892,000 students and 17,100 teachers. However, the school enrollment rate is actually still low, only 34.2% and this has been boosted by the implementation of inclusive education. It is widely believed that inclusive education approach is more effective in increasing the enrollment rate of students with disabilities.

Strategies to Promote Inclusive Education in Indonesia

The process towards inclusive education in Indonesia was initiated in early 1960s by a couple of students with visual impairment in Bandung with the support of the organization of persons with visual disabilities as a pressure group. During that time, special schools for students with visual impairment only provided educational service up to junior high school level, after which blind youths were given vocational training on handicrafts or massage. A number of visually impaired youths insisted on pursuing higher level of education and tried to enter regular high school in spite of resistance from the part of the regular school. Perseverance of the visually impaired youths managed to change the attitude and a couple of students were accepted and their success had made more and more high schools and eventually also universities (though very slowly) open to students with visual impairment.

In the late 1970s, the Government began to pay attention to the importance of the integrated education and they invited Helen Keller International, Inc. to help with the development of integrated schools. Integrated primary schools were established in Jakarta, Bandung, Yogyakarta and Surabaya. The success of the project had led to the issuing of the Letter of Decision by the Minister of Education, 1986, stipulating that capable children with disabilities should be given the opportunity to attend regular schools together with their non-disabled peers.

Unfortunately, when the integrated education project was over, the implementation of integrated education was practiced less and less, especially in primary school level.

However, towards the end of 1990s, new efforts were made to develop inclusive education through a cooperation project between the Ministry of National Education and the Norwegian government under the management of Braillo Norway and the Directorate of Special Education at national level. In order not to repeat the past experience with the integrated education programme that died out, attention has been paid to the sustainability of the programme of implementing inclusive education.

The sustainability strategies are as follows:
- Dissemination of the ideology of inclusive education through seminars and workshops;
- Expanding the role of existing special schools to function as resource centres to support inclusive schools;
- Upgrading/training special school teachers as well as regular school teachers to enable them to better serve children with special needs in inclusive settings;
- Reorientation of teachers education at universities and involvement of universities in the programme;
- Decentralization of policy making to give more role to local governments in the implementation of inclusive education;

- Encouraging and facilitating the formation of working groups to promote the implementation of inclusive education;
- Involvement of NGOs and international organizations in the promotion of inclusive education;
- Networking among various parties involved;
- Setting up pilot inclusive schools;
- Establishment of the master programme in inclusion and special needs education.
- Advocacy for the issuing of a national regulatory instrument on inclusive education;
- Providing incentive (financially or logistically) for schools implementing inclusive education;
- Setting up annual "Inclusive Education Awards". The awards are given by the Ministry of Education and Culture to provincial governments, schools, universities and individuals who constantly show commitment to implementing inclusive education.

The strategy proves to be significantly effective. The echo of inclusive education continues beyond 2005 when the project was discontinued. The most readily observable outcomes of the efforts are as follows:

1) A number of workshops and seminars on inclusive education, both at national and local levels, have been organized, involving educators and education administrators and other related authorities and parties including provincial and local government authorities as well as community figures and international partners.

2) The Ministry of Education and Culture have selected a number of special schools in different provinces to function as resource centres to support regular schools within their region in implementing inclusive education while maintaining their role as special schools. In turn, provincial education authorities in a number of provinces also have appointed other special schools in

their respective areas to be resource centres. In addition, some private entities also have taken initiative to provide support services for inclusive schools. By design, these centres are to support the regular schools with specialist itinerant teachers, staff development in curriculum adaptation and differentiated learning, environmental modification and provision of special learning equipment and materials.

3) Working groups on inclusive education has been formed by a number of provincial as well as municipal education authorities. Members of the group are individuals with high concern on inclusive education; they come from different institutions including universities, special schools and education office. The task of this group is to disseminate the ideology of inclusive education and to give advice on how it should be put into practice.

4) In 2002, 27 pilot inclusive schools were set up in 9 provinces where there were the pilot resource centres. In the subsequent years, more and more inclusive schools have been established. A number of schools, the majority of them are private schools, even voluntarily have made themselves inclusive.

5) A number of universities have been actively involved in promoting inclusive education in their regions and more and more universities have introduced inclusive education as a subject or as topics in other related subjects to their students and many students are inspired to take aspects of inclusive education as topics of their research. Furthermore, a number of universities have established support service centres for students with disabilities. A couple of universities (UIN in Yogyakarta and UB in Malang) even have taken initiative to set a quota for students with disabilities in admitting new students and provide the students with disabilities with support services.

6) UNESCO and some international NGOs have been actively involved in the promotion of inclusive education in a number of provinces. Notable is the work of Helen Keller International and Handicap International in a number of provinces. Their activities include: (1) Identification, Assessment & Enrollment – Seeking out children with disabilities who are not in school and assisting them in enrolling in an appropriate, locally accessible program; (2) Education Quality – Improving teaching skill, creating learning environments conducive to inclusion of children with disabilities and developing revised curricula and programs to meet the child's needs; (3) Mobilizing Local Expertise from local NGOs and universities to inform the design of program initiatives and collaborate with government counterparts to assist in sustainable implementation and growth.

7) Organizations of persons with disabilities have been active to take part in promoting inclusive education. Among others, Pertuni (Indonesian Blind Union), in cooperation with ICEVI and the Nippon Foundation, have helped a number of universities (UNJ in Jakarta, UPI in Bandung and Unesa in Surabaya) to initiate the establishment of support service centres for students with visual impairment. The centres are expected to develop further to serve students with other disabilities.

8) A Master Programme in Inclusion and Special Needs Education has been established at the Graduate School of the Indonesia University of Education (UPI), Bandung, West Java, with technical assistance from the University of Oslo. The programme started in 2003 with 18 students with scholarships from the Project. After the

project was finished in 2005, the programme continues to develop steadily with the annual enrollment of 15 to 25 students in each new academic year. In 2014, UPI even opened the doctoral programme in special education focussing on inclusive education. In addition, in recent years, two other universities, Unesa (Surabaya) and UNY (Yogyakarta) also have taken the initiative to establish a similar master programme. It is to be noted that special education at undergraduate level has been around in Indonesia since mid-1960s. Currently at least ten universities have such programme.

9) In 2009, the Ministry of National Education issued the Ministerial Regulation on Inclusive Education for Students with Disabilities and the Gifted (Permendiknas 70/2009). The regulation stipulates, among others, that the municipal government is to appoint at least 1 primary school and 1 junior high school in each district and at least 1 senior high school or vocational school in each municipality to implement inclusive education, while also to encourage other schools to do the same.

    Furthermore, in 2014, the Ministry also issued another regulation on higher education access for students with disabilities in inclusive setting (Permendikbud 46/2014). In essence, the regulation stipulates that students with disabilities be given equal higher education opportunity with supportive accessibility so that they can participate fully in the learning process together with other students.

10) In 2014, the Ministry of Education and Culture reported that the number of inclusive schools in Indonesia reached 2,430, a drastic increase compared to 27 in 2002. With that, there were around 125 thousand children with disabilities in schools that year[1]. It was also reported that the school enrollment rate for children with disabilities in 2014 was 34.2%[2]. This is a highly significant increase compared to the around 10% enrollment rate reported in early 2000s.

Discussion

With the strategies mentioned above, the number of inclusive schools and the number of children with disabilities enrolled in inclusive schools have indeed significantly increased since the ideology of inclusive education was introduced to Indonesia in 1999. But it looks that it is not quite so qualitatively.

Inclusive education is achieved when students with disabilities are readily accepted to attend any school in their neighbourhood, can participate in all the school activities on equal base and have equal opportunity to succeed.

Inclusion has three key components: (1) physical inclusion (2) social inclusion and (3) curricular inclusion.[3] For these three components to come together requires the cooperation of students, parents and teachers and the support of principals, school communities and the Department of Education.

To be physically included means that children with disabilities are being physically attending

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[1] http://hariansib.co/view/Sekolah/30190/Kemdikbud--Layanan-Pendidikan-Anak-Berkebutuhan-Khusus-Rendah.html

[2] http://www.antaranews.com/berita/464852/menteri-anies--pendidikan-inklusif-adalah-hak-anak-berkebutuhan-khusus

[3] Inclusive Education, Position Paper, Advocacy for Inclusion, March 2007. www.advocacyforinclusion.org

the local neighbourhood school, playing in the same playgrounds, being in the same classrooms and having access to specialist groupings such as art, computer, physical education, at and for the same time as their non-disabled peers.

Nurturing positive social inclusion is far more complex than the physical presence of a child in the classroom. One can be rejected and lonely even in a crowded classroom. The people who belong in a group are those who share the same experiences as all the other members and any reduction in the amount of shared time tends to place social inclusion at risk.

Curricular inclusion requires the involvement of all children in the same daily learning events and as such careful thought and preparation are essential. To enable students with disabilities to participate fully in the general classroom activities, some adaptations are required. Sometimes the adaptations that need to be made for students with disabilities are as simple as (a) changing performance expectations (e.g., different spelling words; 10 math problems rather than 20); (b) allowing students to respond in different ways; (c) changing the materials to match the motivational, sensory or physical characteristics of the student; (d) providing additional time or task completion or responding; (e) providing assistive devices (e.g., tape recorders to take notes, computers); (f) preteaching or tutoring; or (g) modifying the rules of participation.[4]

Research indicates that inclusive education can be successful when a support system is in place. Listed below are the activities and support systems commonly found where successful inclusion has occurred:[5]

1. **Attitudes and Beliefs**
    - The regular teacher believes that the student can succeed.
    - School personnel are committed to accepting responsibility for the learning outcomes of students with disabilities.
    - School personnel and other students in the class have been prepared to receive a student with disabilities.
    - Parents are informed of the programme and they support the programme goals.
    - Special education staff are committed to collaborative practice in general education classrooms.

2. **Services and Physical Accommodations**
    - Services needed by the student are available (e.g., health, physical, occupational or speech therapy).
    - Accommodations to the physical plant and equipment are adequate to meet the student's needs (e.g., toys, building and playground facilities, learning materials, assistive devices).

3. **School Support**
    - The principal understands the needs of students with disabilities.
    - Adequate numbers of personnel, including aides and support personnel, are available.
    - Adequate staff development and technical assistance, based on the needs of the school personnel, are being provided (e.g., information on disabilities, instructional methods, awareness and acceptance

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[4]Giangreco & Doyle. 2000. Curricular and Instructional Considerations for Teaching Students With Disabilities in General Education Classrooms. in Wade, S.E. (Ed.). 2000. Inclusive Education: A Casebook and Readings for Prospective and Practicing Teachers. Mahwah, NJ: Lawrence Erlbaum Associates.

[5]The Council for Exceptional Children (1993). Including Students with Disabilities in General Classrooms. ERIC EC Digest #E521. The ERIC Clearing House on Disabilities and Gifted Education.

activities for students and team-building skills).

- Appropriate policies and procedures for monitoring individual student progress, including grading and testing, are in place.

4. **Collaboration**
   - Special educators are part of the instructional or planning team.
   - Teaming approaches are used for problem-solving and program implementation.
   - Regular teachers, special education teachers, and other specialists collaborate (e.g., co-teaching, team teaching, teacher assistance teams).

5. **Instructional Methods**
   - Teachers have the knowledge and skills needed to select and adapt curricula and instructional methods according to individual student needs.
   - A variety of instructional arrangements are available (e.g., team teaching, cross-grade grouping, peer tutoring, teacher assistance teams).
   - Teachers foster a cooperative learning environment and promote socialization.

While all the activities and systems in the list above are found in Indonesia, not all of them are present in any particular school.

Conclusion

The strategies to promote inclusive education have proved to be effective in the efforts to implement inclusive education in Indonesia during the last 16 years, at least quantitatively. The strategies have contributed to increase the enrollment rate of students with disabilities from around 10% in early 2000s to 34.2% in 2014. The key to this success is the fact that the strategies have involved so many different segments of the society including the government, NGOs, organizations of persons with disabilities, special schools and universities.

However, while workshops and seminars and media publications have significantly changed attitudes and beliefs among many people towards inclusive education, obviously the vast majority of the Indonesian society still need to change their attitudes and beliefs to support this ideology; and among those with positive attitudes and beliefs also still need more understanding of how inclusive education should be put into practice. While many schools have disability-specific services and the accommodations to the physical plant and equipment to a certain extent are available to meet the special needs of students with disabilities, the majority of them are still lacking these facilities. The majority of the schools also are lacking in competent teachers to manage inclusive classes. The Ministerial Regulation on Inclusive Education stipulates that the Municipal Government shall provide at least one special education teacher for each school implementing inclusive education, but obviously it needs some time until this stipulation can take effect. Resource centres have been established to support the inclusive schools, but more efforts need to be taken to make them more effective.

Despite these all, indications show that the implementation of inclusive education in Indonesia is getting better and better from time to time.

> Once I knew only darkness and stillness... my life was without past or future... but a little word from the fingers of another fell into my hand that clutched at emptiness, and my heart leaped to the rapture of living.
> *- Helen Keller*

Serving Children with complex disabilities in Care Homes

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In Asia, we find many children with complex multi-sensory disabilities living within Care Homes. The situation of these children is often overlooked in our discussions of policy, teacher development and evaluation of inclusive education practices. Yet, working with a Care Home presents unique challenges and as we have come to realize the surprising number of children living in this situation, we have tried to better define the challenges of service delivery and our strategies of intervention.

Children with Complex Sensory Impairment in Care Homes: current situation

Care Homes include organizations with a wide range of philosophy, services and missions. Many cater to children in poverty whose families are unable to adequately support them as well as to those who have no parents. Perkins International engages with Care Homes established by the government, private citizen groups or religious orders that may specialize in children with disabilities or have mixed groups of ability among the children; children of the same age or across ages. In order to provide good space and safety, Care Homes are often far from the city and isolated from the neighbourhood within large compounds, closed off with tall walls and gates. Most often we find the children well cared for – clean, safe environments, good clothes and nutritious food. However, very few Care Homes, particularly in the case of children with complex needs, are comfortable in thinking of and planning for a future for these children. The majority assume they will care for children with disabilities all their lives and therefore, the focus is simply on keeping them healthy and alive.

Many children have been at the orphanage since infancy as the medical complexities became apparent to the family. Others come in early childhood as families realize treatment will not solve the problem; or at the age when they become too heavy to care for. Whatever the reason, typically, they spend a significant part of their developmental years away from the love, hope and care that families provide.

Long term impact in the lives of children with complex sensory impairment

While many strategies and experiences support development and learning in children with complex sensory impairment, we often come across situations in Asia where providing qualified interveners is challenging. In this case, we work with the family to develop a dream, a vision of a desirable future for their child, teach basic strategies to build communication and independence and integrate these into the daily routines of the child and family.

Building dreams with the caregiver

Over the years, in our work with families and teachers, we have come to understand the great importance of always having dreams for the child. Particularly in the case of the child with significant disabilities, without caregivers holding strong dreams, intervention has no direction and decisions on the meaningful next step are always hard to take. A guiding principle of effective intervention has been to work closely with families and caregivers as they form the child's most consistent environment. If they have a dream of a future for the child, it is easier to make choices that impact their child's

experiences and to keep up the motivation and energy required to provide the child with opportunities that could lead to achieving that dream.

Enriching Routines

Significant challenges in health, movement or communication mean that it is only too easy to spend the whole day in accommodating the child's immediate challenges and anticipating and providing basic needs. However, it is through active and meaningful engagement in the small, repeated routines of life, that all children learn key things about themselves and their environment and develop skills that are relevant to their life. With rich routines comes an understanding of how the physical and social world is structured and helps children learn communication and thinking skills and how to negotiate their world. As children grow older, increasing their participation in their family and then community routines helps them develop their dreams and discover their own interests and abilities.

Typical Challenges presented by Care Homes

In Care Homes, faced with providing constant care for several children, typically established routines ensure life, but not living; it focuses on efficiency and health maintenance and there is no space for experiences that nurture personality and learning.

- Wake up 6.00 a.m.
- Toilet
- Meal
- Send Outdoor for sun
- Toilet
- Bath
- Indoor tv/self play time
- Meal
- Sleep
- Outdoor
- Meal
- Sleep 6.00 p.m.

Schedules shared with us are typical across many orphanages where usually children are cared for in 6 hour shifts. They are moved in and out of the room not so much for the variety of experience this offers, but to allow for practical things like room cleaning schedules. They may be sent out into promising environments like outdoors, but may be simply placed and required to stay on the mat as the focus is on the health benefits of fresh air and sunshine and the idea of the range of experiences available in outdoor play is rarely considered.

Engaging with the primary caregiver in modifying the physical environment and enriching the routines is often a first step in intervention. However, as interveners in a Care Home, we are faced with a curious question – who really is the primary caregiver? With whom should we partner? There are so many adults involved and each with a different responsibility and role!

In a family situation, it is the parents who make all the major decisions about the daily life and experience of the children, implement or supervise these activities and stay closely engaged through many years to the lives of their children. It is also the parents who earn the money that runs the household and divide up tasks between them and they can therefore easily decide how money and people's time will be used.

But in a Care Home, decisions about the experiences and environments of the children is by several adults and even agencies, each of whom have specific responsibilities – those responsible for finance and management, those for policy creation and implementation and so on, while the direct activities of caring and interacting is by one group of adults who often know the children the best. However, these caregivers are usually responsible for several children at a time, are unlikely to have the freedom to individualize their routines for each child and rarely remain responsible for caregiving to a child for more

than a few years at a time after which either the child moves or the caregiver moves to another room. Thus we have a bewildering list of adults to intervene with and tight structures and routines that prevent designing simple opportunities for learning.

Strategies for successful engagement with Care Homes

In our work with orphanages in Indonesia and Vietnam, we have come to realize that the basic strategy of intervention remains the same – only the numbers of individuals involved are significantly different!

A first step is always to raise awareness about the potential and abilities of the children with complex sensory impairment and at the same time change the way adults see their role in the lives of the children to actively enabling and not just passively caring.

We often begin by asking them to reflect on their own childhood experiences and the role of adults in influencing the direction of their lives and the skills, knowledge and beliefs they have. Once they discover how simple things like being given the responsibility to buy the milk for the family or care for a younger sibling made them feel and how it taught them so many things, they look at the experiences of the children through different eyes. We ask them to compare how they spent their days and what adults did to facilitate this and how the children in their care spend their days and what they may do to change this. Usually this is the beginning of a group problem solving which is exciting and creative.

Beliefs need to be bound with strategies and often we join caregivers in their routines, working beside them, but implementing simple

strategies that promote communication and independence. Often simple changes in the arrangement of the physical environment or the provision of a small adaptation can make a dramatic difference. Usually, the caregivers are surprised at how fast the children learn and how quickly their personalities emerge and they are intrigued and willing to try.

As the talk turns to discussions about the future, we present stories and pictures of children we have served and what they are now doing with their lives as adults. Where possible, as it was in one orphanage in Indonesia, we ask young adults with complex disabilities to visit and these interactions enrich everyone from the Head of the Care Home to the children and the caregivers.

This engagement of adults at all levels, from the Ministry or Board to the Administrative Directors, the Medical superintendents and the staff who actually provide the service is essential, as decision making is scattered across all of them.

A second important strategy is to build skills of engagement in the caregivers. Children with complex sensory impairment do require adults to learn how to support them to develop independence, communication and life skills. With a high staff turnover, consistent caregiving presents one of the biggest challenges to a good social and emotional environment for these children. Often we engage with the consistent volunteers from the community and other children in the Care Home to provide stable care and engagement with each child.

Indeed, volunteers play an essential role in facilitating the movement of children beyond the gates of the Care Home. They serve as the bridge to the community,

drawing the children out and the community in meaningful, enriching encounters. In Vietnam, the orphanage hopes to open a little shop to encourage greater interaction with the community. In Indonesia, the volunteers come regularly to work together with the children and caregivers in their accessible garden.

Where it is not yet possible to engage professionals who understand the needs of children with complex sensory impairment, we provide regular and intensive technical support and work closely with our partners to provide extended care. We work hard to build Caregiver abilities and confidence in building independence in the children. This is challenging as unlike parents who remain consistently caring for the same child, often Caregivers will leave or be moved to other rooms. Thus the support of the administrators is a significant goal for long term success in changing the patterns of care.

Effectiveness of support

While it is still early in the process of building capacity, the steady changes we are seeing in the orphanages gives us hope that significant and sustained changes are in fact very possible. Routines that were focused on the efficiency of caregiver time have now changed to focus entirely on the child's life and learning. Children who spent many empty hours are now constantly engaged and are active through the day in many different environments. They are an integral part of the Care Home, helping out with routines and care of each other and of their environment. They are often out and about in the community and the community is reaching out to include

them. The staff of the Care Homes are beginning to plan for individual dreams of the children and administrators are fighting hard to locate professional support and interventions.

Conclusion

The structure of a Care Home is contrary to much of what we know as supportive of child development and can be particularly limiting when the child has complex sensory impairment. While long term solution of developing strategies to better support families who struggle to care for their children and alternative ways of caring for orphans are desirable, the needs of children who are currently cared for in these environments cannot be overlooked. Changing the perspectives of those who are responsible for the future of these children from preserving life and health to promoting participation in home and community has proven to be the most effective way to bring about a measurable change in the quality of the children's life and learning. Providing actual strategies, skills and knowledge to the caregivers is also a significantly important step and one that could be better supported by government and existing programs in the countries.

While countries are getting better at monitoring their progress toward their commitment to education for all, children in Care Homes are often overlooked. Documenting the number of children with complex needs in Care Homes and their access to appropriate educational opportunities would be a concrete step to acknowledging the problem and identifying resources and strategies to address it.

> We could never learn to be brave and patient, if there were only joy in the world.
>
> *- Helen Keller*

Using Pre-Braille skills approach in improving Braille reading of pupils with MDVI

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Introduction:

Rationale of the Study

Children with multiple disabilities and visual Impairment refers to children who have more than one disability with one of the disabilities essentially being vision impairment. The term "multiply disabled" is used to describe a child who has more than one condition that affects learning. (Nandini Rawal & Vilmal Thawani, 2009).

Handling and managing children with MDVI is not easy specially in developing them to become Braille readers for them to cope with the fast changing society. For them to become productive, they must learn to read Braille.

Braille is a system of reading and writing by touch used by the blind. It consists of arrangement of dots which make up letters of the alphabet, numbers and punctuation marks. (Future Reflections Winter, 1996 Vol. 15 no.1). But Braille reading of the pupils with MDVI becomes a great challenge by Special Education teachers because it needs Braille techniques in order to develop a Braille reader.

One important skill for Braille reader is the ability to create smooth and even pressures when running one's fingers along the words. There are many techniques used for understanding and development of Braille; even a study suggests that there is no specific technique that is superior to any. (B.F. Holland)

French philosopher, Denis Diderot, offers the following evaluation of the senses: "I found that of the senses, the eye is the most superficial, the ear the most arrogant, smell the most voluptuous, taste the most superstitious and fickle and touch the most profound and philosophical." (Peaco, 2000, p. 315) If this evaluation is valid, the development of tactual skills should be part of every child`s education. Common sense dictates that if a student has limited vision, he should develop greater use of the other senses to compensate for the poor vision.

In developing a Braille reader, touch is also a very important consideration. Touch is the first sense that an individual develops in life. Touch continues to be the primary means of experiencing the world through infancy and well into childhood. Touch even plays a major sensory role through the life to old age. Children depend on touch for learning about the world including qualities of temperature, texture, shape, softness, elasticity and resilience. (https://nfb.org/images/nfb/publications/books/integrating-print-braille/integratingprintandbrailledchapter3.html)

Philosophical Assumption

Children with multiple disabilities and visual impairment can also become Braille readers through Pre-Braille skills approach.

Main Objective

This study aims to help improve and describe the poor performance of pupils with multiple disabilities in reading through Pre-Braille skills approach.

Research Methodology

Research Design

The study employed the action research design through the use of criterion sampling. Patton (2001, p.238) defined criterion sampling involves selecting cases that meet some predetermined criterion of importance. Action research was employed to solve a particular problem and produce guidelines for best practice. (Descombe 2010 p.6).

The purpose of action research is to bring about development in her practice by analyzing existing practice and identifying elements for change. (Maureen McGinty 2006). This method sought to improve the reading performance of pupils with multiple disabilities and visual impairment through Pre-Braille skills approach.

Participants

The participants of the study were two children with multiple disabilities and visual impairment composed of one female with visual impairment, global developmental delay, microcephaly, echolalia, and seizure disorder and one male with visual impairment, fine motor problem and autism-like behaviour. They attend classes in the self contained SPED room every day. The parents of the children were also included because the researcher asked permission from them and they served as additional information in the study.

Research Instruments

In gathering the data, the researcher used two methods: Interviews and performance observation in the classroom which is embedded in face-to-face instruction.

The action research using interview is useful for getting the story behind a participant's experiences. (McNamara,1999).

Participants were interviewed to tell stories about their experiences so that every word that they used in telling stories was microcosm of their consciousness. (Greef 2005). The researcher conducted the interviews while having classroom instruction and was fully engaged in the process, willing to understand the participants' responses to a question in the wider context of the interview as a whole.

Face-to-face interview is a purposeful discussion between two or more people that can help gather valid and reliable data that is relevant to the research objectives. (Kahn and Cannel 1957).

Observations were also conducted by the researcher. The researcher is also the teacher of the two participants. The purpose of the observation is to enhance the understanding of the context within which interaction takes place. (Patton, 2002).

The researcher being the teacher of these children wishes that she could help them become Braille readers. Before the conduct of the study, the researcher asked the permission of the parents through a letter that while teaching the pupils an action research will be conducted. When permission was granted, the respondents were informed about the study.

Based from the researcher's experience towards handling children with multiple disabilities, she found out that there is really a need of something beneficial to do to help children with MDVI able to read Braille. In her desire to help, she came up with a modified intervention method to improve the Braille reading performance of MDVI pupils through Pre-Braille skills activities that were divided into four (4) criteria/levels.

Criterion/level 1 Fine motor techniques and concepts to improve fine motor skills (Adopted from www.braillesc.org)

The pupils were given the opportunity to perform and develop the skills and concept of rough-smooth, soft-hard, small-big, same and different

objects. The materials used were made from recycled items of folders, papers, strings, cotton, pebbles, mongo seeds, and others, carefully made to help the pupils develop fine motor skills.
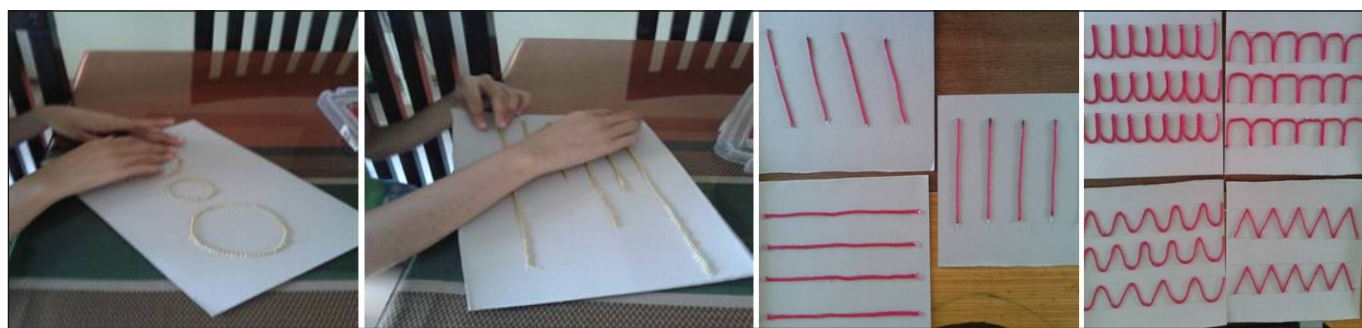
Criterion/level 2 Palmar Grasp, Thumbs and Fingers Together, Pincher Grasp, Object Release and Rotary Motion
(Adopted from classic.usdb.og/deafblind/db)

The pupils were provided with **Palmar Grasp Activities** like taking objects out of containers, putting beads and picking up small objects. **Thumb and Fingers Together Activities:** stringing beads, building blocks, and finger painting. **Pincher Grasp Activities:** picking up smaller objects, popping bubble wrap, and putting coins through a small slot. **Object Release Activities:** sorting objects, stacking cans/nesting cups, placing object on containers. **Rotary Motion Activities:** Assembling nuts and bolt, turning volume knobs on radio & TV and manipulating lids on and off the jars. The activities were aimed to improve finger dexterity and hand strength.


Criterion/level 3 The Modified Braille Cells and Dots
(Teacher-made materials)

The pupils were given the opportunity to manipulate teacher-made modified instructional materials that represent the Braille cell and placement of dots. The materials will help enhance the identification of Braille cell and dots, identification and mastery of the dots of the letters of the alphabet and connecting dots to read syllables and words.

The materials were made from quail egg tray as Braille cells and wooden balls as dots, small beads, glued to hard board arranged like Braille cells and dots made from heads of match sticks covered with tissue paper placed according to letter-dots-presentation raised as Braille dots to let the pupils read with real Braille prints for mastery. For syllable and word presentation, there were already prepared hard board with empty Braille cells and many match sticks' heads for any dots to place according to letters.
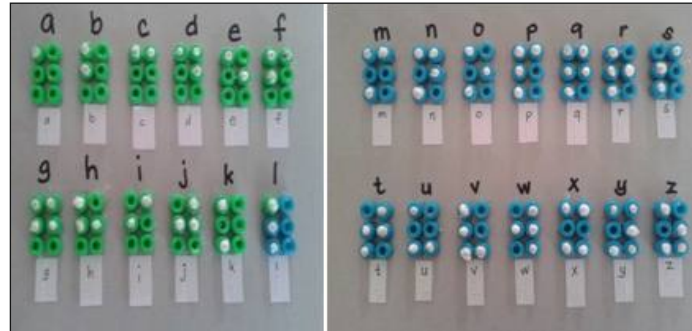
Reading Readiness Series

This material was prepared by the Experimental Education Unit of the Philippine Normal College Special Education Center, Manila, 1964.

The material is divided into two parts. Part 1 which comprises of different groups of dots where instructions are provided for the teacher and pupils to work on and Part 2 comprises of dots produced where letters of the alphabet were presented in different orders for mastery and proper identification of letters.
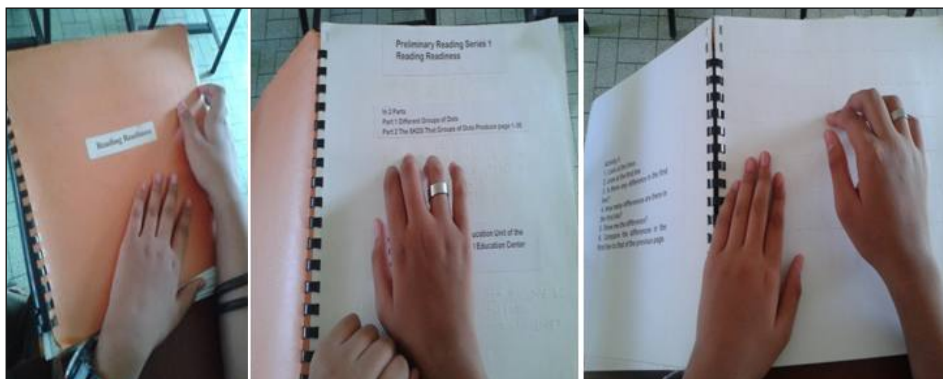
Criterion/level 4

Braille Reading Activities

The pupils were given modified teacher-made materials for reading purposes. The reading practices offered where: Phonics Sounds, Syllables, Words and Sentences. The materials in Phonics sounds were made from recycled materials: rubber mat (Braille presentation) associated with embossed pictures and Braille prints. The materials for reading practice are made of Braille papers which were printed with raised-lined pictures to identify what is presented and written with big prints with Braille prints.
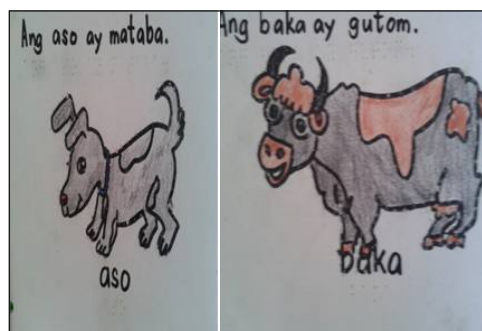
Data Analysis

Analysis and interpretation of the data were done utilizing action research method. Analysis of data and responses was done after data gathering. The criterion sampling, interviews and observation were recorded, transcribed and translated to English, if the responses were done in the vernacular. The responses were categorized based on the objective of the study and content analysis.

Ethical Consideration

Certain protocols were considered by the researcher in conducting the study like sending letter of permission to the parents to allow her to conduct the interview and observations among the participants. The ethics of confidentiality was strictly observed in reporting the findings. Thus, the participants' names were not presented on the paper.

Discussion of Results

There were three (3) themes that emerged from the data analysis. These were poor study habits, fine motor problem and lack of mastery of Braille dots. The themes arose from the common experiences expressed by all the participants.

"Mommy is busy with her work... she cannot attend to my studies and I want to sleep upon reaching home because I am tired": Girl.

"Upon reaching the house, my mother becomes busy doing household chores that made her tired to help me study my lessons": Boy.

Developing good study habits succeed in class and achieve educational goals. Those who have bad study or poor study habits/poor organizational skills could end up flunking in a class or getting behind in school. (www.onlineclasses.org)

From pupils' responses, there is a need for them to be motivated in terms of developing study habits.

"I find difficulty in reading the dots... I cannot feel the dots. My fingers find difficulty in tracking to read the dots": Boy.

"My fingers are aching in tracking the dots... I am confused in using my fingers to touch the dots": Girl.

The responses showed that pupils have fine motor problems that need to be taken care of by teachers and parents.

Children who are referred to as "fine motor" or "pencil grip" kids are group of children who are experiencing difficulty learning to print manuscript or cursive letters or who have trouble with the legibility, who have never been taught to write or learn the skill are usually recognized by teachers in the early grades and are provided with extra instruction. Majority of children are to be referred to therapy services. (www.canchild.ca/en/owr)

According to Burklen (1932), Touch reading of the blind reflects study of dot configuration and its effect upon Braille cell recognition using 39 Braille characters comprising nail heads on wood. To reduce finger sensitivity, the author recognized the students to wear rubber caps over their reading fingers as they explored the Braille cell in which the distance between dots measured .236 inches, the distance common in Standard English Braille.

"I forgot some of the dots of the letters, I cannot memorize": Girl.

"I am confused of the dots of the letters.... I have not mastered the dots of the letters": Boy.

Pupils' responses affirmed that they should master the Braille dots/characters for them to be able to read.

Braille-character recognition is one of the foundational skills required for teachers of Braille. (BC Putnam, 2015).

The Braille code is a system that facilitates development of literacy in individuals with visual impairment by allowing these individuals to read through touch rather than sight. This code consists of raised dots arranged in a cell that contains six possible dot positions. (American Foundation for the Blind, 2013)

Theoretical Framework

This study is anchored in the theory of David A. Kolb on experiential learning, which he created in his famous model out of four elements: Concrete Experience, Observation and reflection, the formation of abstract concepts and testing in new situations. (David A. Kolb on experiential learning).

Kolb (1975) says that ideally, this process represents a learning cycle or spiral where the learner "touches all the bases", i.e., a cycle of experiencing, reflecting, thinking and acting. Immediate or concrete experiences lead to observations and reflections. These reflections for action, which the person can actively test and

experiment with, in turn, enable the creation of new experiences. (kolblearningstyles.htm)

Assertion

Based on the findings of the study, the following assertions were made that pupils' poor performance in Braille reading were attributed to poor study habits, fine motor problems and lack of mastery of Braille dots.

These results really affected the performance of children with MDVI in their learning processes. The use of Pre-Braille skills approach was found out to be effective in the Braille-reading of pupils with multiple disabilities and visual impairment.

If given enough opportunities to practice and master the skills in Braille reading through Pre-Braille skills approach, children with MDVI can become Braille readers.

Implication/Commendation

As teacher of children with multiple disabilities and visual impairment, developing these children to become readers need resourcefulness and diligence to make possible means and ways to prepare manipulative-tactile materials that deal with Pre-Braille skills according to the needs, strength and present performance of the children.

Pre-Braille Reading Skills Approach must be applied to children with MDVI. The approach be done with strict implementation and support by the parents and teachers to improve and develop the study habits, fine motor skills and mastery of Braille dots/characters.

Pre-Braille reading skills were found helpful for families who want to support and improve their pre-literary skills, multi-sensory approach to reading readiness that help build concept development, auditory and tactual discrimination skills.

To help the child develop a love of reading Braille, it is recommended that the following concepts will be used: Body and Space Awareness, Identify Objects, Time Awareness, Braille"bumps", Motor Skills and Tactual and Auditory Skills. (www.pathstoliteracy.org)

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