TECHNICAL AND VOCATIONAL EDUCATION TRAINING (FOR PERSONS WITH VISUAL IMPAIRMENT IN THE PHILIPPINES) BY ONNET

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ABSRACT: *In a national survey that we conducted in 1998, out of about fivehundred adults with blindness, we found out that there were 27 visually impaired adults with very little background or have heard about computer for theblind. Screenreader for the blind then was not that familiar with them. Technology and computers for the blind was introduced in the Philippines in the late 1990s,when a non-government organization took advantage of it and began to work for the blind by offering basic training in computer using a screenreader. Resources for the Blind, Inc. (RBI), first got involved in computer training through a trainers training with five special education teachers as participants. A series of trainings followed for other special education (SPED) teachers and selected workers for persons with visual impairment. After gaining the skills, these teachers included computer lessons in their curriculum. It was also during this time that ONNET started to fund a project to set up a Computer Resource Center in each of the schools where there are students with blindness. The Computer Resource Center was equipped with a set of computer with screenreader and magnification software, braille translator program and braille embosser, a printer and a scanner. Then in 2001, RBI started Computer-Eyes, a two-week advanced computer training program for selected twenty secondary students with visual impairment. This training aimed to better educate the students about the use of computer using a screenreader and prepare them for future employment. This program was conductedin partnership with the Philippine government's Department of Education, IBM Philippines, Freedom Scientific and Overbrook-Nippon Network on Educational Technology (ONNET). With the support of these organizations, students with visual impairment are taught the importance and use of computers using a screenreaders, office applications, Internet and email. The computer training is now an annual project of RBI with 20 to 30 participants every year which through the recommendation of the SPED teacher from different schools of the country.*

Computer and assistive technology has made a positive impact in the lives of people with visual impairment in education and employment around the country. More students in higher education are now encouraged to take computer related courses because of the jobs demand in the global market. Currently, there are about 31 students with visual impairment enrolled in college and universities nationwide taking up computer related courses.

Philippines Disability Legislation

The Philippines has policies and laws that gives favor to persons with disabilities have a place in society that would allow them to function normally and be productive members of their community.

i. The Philippines adheres to the Universal Declaration of Human Rights, that all human beings are born free and equal in dignity and rights and that everyone is entitled to all the rights and freedoms regardless of age, race, sex, and disability. The protection of basic human rights—political and civil rights for all

citizens including those with disabilities—is provided for in national legislation.

ii. As a member of the United Nations, the Philippines has reaffirmed the World Programme of Action Concerning Disabled Persons through the promotion of participation and equalization of opportunities for persons with disabilities, which was an important outcome of the International Year of Disabled Persons, 1981. The State's commitment to develop the capacities of people with disabilities and observance of the International Decade of Disabled Persons 1983–1992 have provided focus and priority to the country's disability issues and concerns.

iii. Legislation specifically and exclusively addressing disability has been formulated. Republic Act 7277 or the Philippine Magna Carta for Disabled Persons, which took effect in 1992, is the definitive legislation that addresses disability concerns in the Philippines. It contains specific provisions and policies to address the concerns of persons with disabilities and ensures that they are provided equal opportunities and participation in their development. The legislative measure identifies and provides for the rights ofpersons with disabilities with regard to employment, education, health, auxiliary social services, access to telecommunications, and enjoyment of political and civil rights. Moreover, it ensures the protection of their rights through the prohibition of discrimination against them. The Magna Carta for Disabled Persons identifies government agencies responsible for the formulation of programs and services and enforcement of legislation in support of persons with disabilities.

iv. Republic Act 344, or Accessibility Law, requires that public buildings meet reasonable accessibility requirements in order to promote the mobility of persons with disabilities.

v. Proclamation 125 (declared by then President Fidel V. Ramos in 1993) called for the nationwide observance of the Asian andPacific Decade of Disabled Persons to advance disability concerns further. The goal of this proclamation was to equalize opportunities and promote the full participation of Filipinos with disabilities in line with the Agenda for Action for the Asian and Pacific Decade of Disabled Persons.

vi. RA 10372 Copyright Law Amendment: **SEC. 11**. Section 184.1. of Republic Act No. 8293 is hereby amended to read as follows:

    –SEC. 184. *Limitations on Copyright*. – x x x

    –(1) The reproduction or distribution of published articles or materials in a specialized format exclusively for the use of the blind, visually- and reading-impaired persons: *Provided*, That such copies and distribution shall be made on a nonprofit basis and shall indicate the copyright owner and the date of the original publication.‖

vii. White Cane Act (Republic Act 6759), 1989; —an Act Declaring the First of August of Each Year as White Cane Safety Day in the Philippines and for Other Purposes;‖

viii. Exective Order 281 Free matter for the Blind exempting the blind and those with print disability from paying postage for mailings.

ix. Administrative Order 39 requiring all government agencies to make their website accessible.

    In our desire to lift up the status of persons with visual impairment in the Philippines, Resources focuses on the delivery of programs and services and advocates for the integration of persons with visualimpairment in our society.

    In a national survey that we conducted in 1998, out of about five hundred adults with blindness, we found out that there were 27 visually impaired adults with very little background or have heard about computer for the blind. Screenreader for the blind then was

not that familiar with them. Technology and computers for the blind was introduced in the Philippines in the late 1990s, when a non-government organization took advantage of it and began to work for the blind by offering basic training in computer using a screenreader.

Assistive Technology Training
Resources for the Blind, Inc. (RBI), first got involved in assistive technology training by conducting the first trainers training where five selected special education teachers participated. A series of trainings followed for other special education (SPED) teachers of persons with visual impairment. After gaining the skills, these teachers included computer lessons in their curriculum. It was also during this time that ONNET started to fund a project to set up a Computer Resource Center in each of the respective school of the trained teachers.

The Computer Resource Center was equipped with a set of computer with screenreader and magnification software, braille translator program and braille embosser, a printer and a scanner. Then in 2001, RBI started *Computer-Eyes*, a two-week advanced computer training program for selected twenty secondary students with visual impairment. This training aimed to better educate the students about the use of computer using a screenreader and prepare them for future employment. This program was conducted in partnership with the Philippine government's Department of Education, IBM Philippines, Freedom Scientific and Overbrook-Nippon Network on Educational Technology (ONNET). With the support of these organizations, students with visual impairment are taught the importance and use of computers using a screenreaders, office applications, Internet and email. The computer training isnow an annual project of RBI with 20 to 30 participants every year which through the recommendation of the SPED teacher from different schools of the country.

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Employment for persons with visual impairment has also increased because of the assistive technology made available for themand the computer skills that they have. Moreover, many of them are working in a computer related companies such as BPO's, as English Coach, Web content Writers, and others.
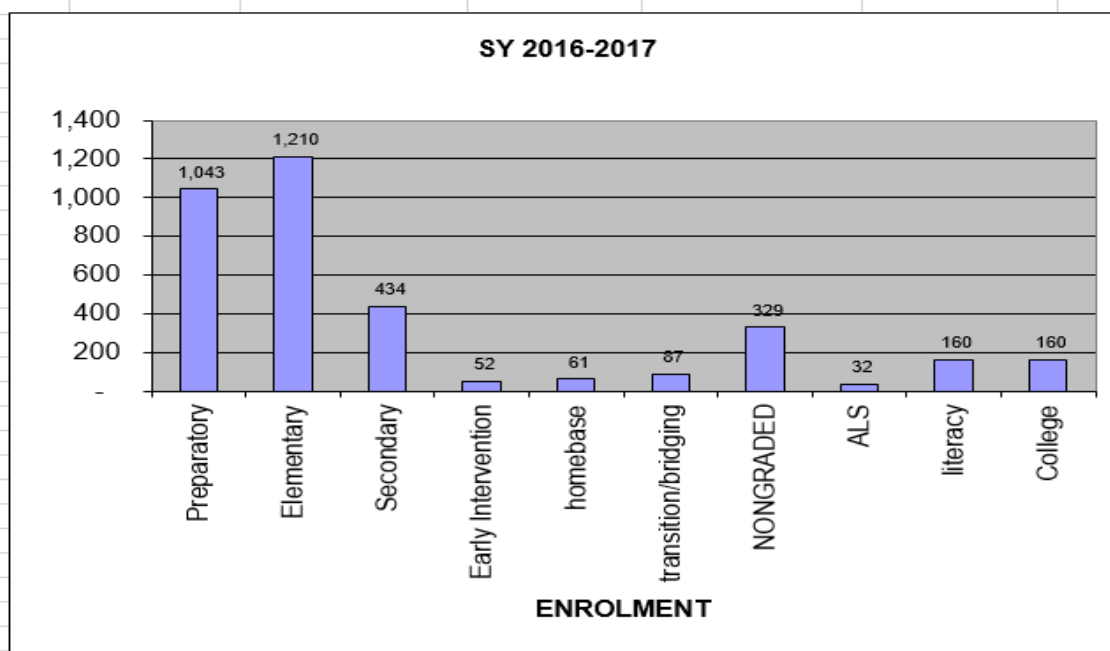
Table 2: SPED EARLY ENROLMENT IN GOVERNMENT ELEMENTARY SCHOOLS (SY 2012-13)

Region	Blind or Visual Impair-ment	Deaf	Intellect-ual Disabili-ty	Speech / Lang-uage Impair-ment	Serious Emotional Disturb-ance	Autism	Orthope-dic Impair-ment	Special Health Prob-lems	Multiple Disabili-ties	Total
I	314	367	1,069	531	143	134	149	237	94	3,038
II	104	60	209	125	29	37	57	50	17	688
III	688	519	921	468	126	251	150	287	242	3,652
IV-A	509	706	1,530	333	89	327	128	191	149	3,962
IV-B	203	246	488	369	91	89	97	111	79	1,773
V	459	537	922	662	140	285	217	322	158	3,702
VI	555	844	1,596	694	97	277	173	293	166	4,695
VII	388	523	1,131	505	343	192	134	210	104	3,530
VIII	394	443	610	571	113	143	146	242	93	2,755
IX	150	207	468	198	19	71	48	63	89	1,313
X	302	342	816	266	73	145	62	188	170	2,364
XI	162	315	646	274	47	189	83	63	424	2,203
XII	181	259	486	273	224	175	63	124	87	1,872
CARAGA	181	307	393	242	50	146	58	111	122	1,610
ARMM	104	114	94	79	16	16	37	201	7	668
CAR	143	144	271	213	46	46	49	123	56	1,091
NCR	88	284	470	54	20	256	24	34	35	1,265
Total	4,925	6,217	12,120	5,857	1,666	2,779	1,675	2,850	2,092	40,181

Source: Department of Education

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Figure, Tables, Equations

Enrollment of Students for school year 2016-2017 that were assisted by RBI

# of Students	trained/knowledgeable in	Schools Equipped with Computers for the Blind	
1999-2000	27	1999-2000	0
2001-present		2001-present	71

Results of the Computer Training for Blind Students in the Philippines

RBI PROJECTS

i. **Computer Skills Training for Teachers:** RBI started to equip the special education teachers from public schools by giving them computer training on how the blind use the computer.Five teachers were initially trained and eachyear, we continued to invite other teachers to undergo the computer training.

Series of trainings has been given to upgrade their skills in using the screenreader for the blind as well as using the equipment on how to produce accessible reading materials for them.

As as result of this training, the school now makes the computer lessons for the blind students form part of their curriculum. During the computer class, the blind students now participate unlike before since they were not aware or have no knowledge about computer, the blind students are exempted or excluded in their computer classes. Because of this development in technology and also because of the interests of the students in computer, they can even exceed the expectation of the teacher. Now they participate in class discussions.

ii. **Computer Resource Center for the Blind:** In our desire for the students to have a continuous training and hands on practice in their respective school, a computer resource center is set up equipped with a set of computer with the screenreader program, scanner, braille translator as well as the braille printer. We currently have 72 schools that have computer resource center for their blind students all over the Philippines.

iii. **Scholarship for IT& Computer Science College Students:** Through the funding of the Overbrook – Nippon Network on Educational Technology (ONNET) and the International Council for Education of People with Visual Impairment (ICEVI), full scholarships were given to sixteen (16) indigent qualified college students with blindness. Scholarships include tuition fees, transportation and books. Today, all of these students have graduated from their courses and as a result of this project, we have computer trainers, online English tutors, online marketers and workers working as BPO

iv. **Loan of Assistive Devices:** We help blind students attain success in high education by loaning them assistive devices. These assistive devices also make our students with visual impairment interested and enjoying their learning as well as cope in their studies is the availability of asssitive devices which they can loan every start of the semester and return them after each semester. These assistive devices include a digital book player, netbook with screenreader, braille display, talking scientific calculator, audiographing calculator in which they have the option to choose one for their use. The device allows the students to do their lessons or assignments independently and with minimal assistance from their sighted guide.

v. **Computer-Eyes: An Annual Computer Camp for Blind Students**

Keeping up with the fast changing computer technology is very challenging especially persons with visual fo The accessibility to information and communication technology (ICT) is important in the education of persons with disability as it enables them to have access to their academic, social, and eventually employment opportunities that have traditionally been limited for them. However, while there is awareness that access to education through ICT should be equitable and accessible for students with visual impairment, they the least arepriority.

Computer-Eyes participants with the IBM Philippines administrators

As we directly deal with students with visual, we recognize the importanceand crucial benefits of giving them the necessary training. Through the Computer- Eyes, the participants are equipped with the necessary computer skills and knowledge, hence, it provides skills and access to life- changing educational and better employment opportunities. Computer-Eyes,

the only special ICT based computer-training for high school students in the Philippines, is an advanced computer training participated by a new batch of trainees each year. In partnership with IBM Philippines, Overbrook-Nippon Foundation and the Department of Education, we are privileged to conduct this y year's intensive training for two weeks.

Area	F	M	Total	College Graduates	College Undergraduates	High School graduates	Still Studying	Working	Looking for work	
1. National Capital Region	84	54	138	60	9	28	40	45	52	
2. Luzon	69	54	123	42	3	34	32	41	50	
3. Visayas	48	43	91	37	3	20	27	22	43	
4. Mindanao	41	41	82	18	1	28	31	16	35	
5. Others (London/US)	1	1	2				2			
Total	243	193	436	157	16	110	132	124	180	436

Number of Students who have been trained in the Computer-Eyes as of 2016

vi. **Student Resource Center:** Another option for the students with visual impairment is the use of the Student Resource Center of Resources for the Blind, Inc. especially for those who are not able to avail of the loan of assistive devices. They can make use of this center anytime they want during office hours and on weekdays. The center is equipped with desktop computers with screenreader, ready internet connection for their research, braille translator and embosser, braille display and scanner with optical characterreader in which they themselves can scan and

read their textbook using the scanning software for the blind.

vii. **ICT Congress for Blind Students:** One way of motivating and appreciating administratorsof schools in the Philippines who have opened their doors for the blind especially thoseoffering IT and Computer Science courses is to conduct and ICT Congress where participants include students taking up IT and comptuer related courses and professors from the IT schools. Resource Speakers include graduates who are enjoying their mainstreamed jobs and share about their success in their profession, as well as professors who have blind students in their class and how they teach their blind students.

viii. **Provision of Accessible Textbooks to Blind students:** One important program of RBI is the production and provision of the textbooks in the format that the blind can read and this is through braille, large print or digital electronic or audio. Any visually impaired student in higher education avail of these program and we can say that it really contributes to the independence and easy access to knowledge ang information. This makes them not only at par with their sighted classmates but even allowthem to excel that is why, some of them graduate with honors if not, as the topnotcher oftheir class.

ix. **Employment for the Blind:** Statistical analysis showed that the factor performance of the currently hired blind employee proves to be the best judge for hiring more visual impairment. The primary and often only consideration of Philippine employers is the positive individual image that decisions to hire

visual impairment will bring to the company.

Service industries such as hotels and massage parlors are most likely to hire persons with blindness or visual impairment. Small-scale enterprises also showed the most favorable attitude towards employing visual impairment. Business Process (BPOs) are Outsoursingalso one considered hiring persons with visual impairment. Many of those employers who agree to hire visual impairment have observed that they have consistently shown satisfactory work performance in their company.

The Philippine government guarantees the capacitating and inclusion of visual impairment into the mainstream society by stressing the importance of their rehabilitation, self-development and self-reliance as stipulated in the Magna Carta for Disabled Persons.

Some of its noteworthy efforts in improving the employment opportunities of Visual impairment include the development and implementation of training programs in support or in preparation for employment, the allocation of jobs in many government agencies, and the provision of attractive incentives to private entities who will hire Visual impairment.

Resources for the Blind, Inc. (RBI) is one of the agencies that provide intensive training on technical skills, work ethics, socializationand independent living skills and initiate efforts to help improve the attitudes and behaviors of people in the workplace towards visual impairment. RBI provides job placement services to adult blind persons after giving them the necessary trainings. Equally important, we continue to provide orientation employers or prospective employers.

CONCLUSION

With the advancement of technology and easy access to any information as well as the availability of trainings, persons with visual impairment in the Philippines are given oppportunities in pursuing their chosen field of higher education.   Given the the proper education, good training and the assistive devices, the blind can now have the liberty to find a good and fulfilling job.   They can become productive members not just to their family but of the community they belong, hence they become encouragement not just to other persons with disabilities but to institutions to provide programs and services that benefit persons with disabilities.

REFERENCES

http://www.ohchr.org/EN/UDHR/Pages/Language.aspx?LangID=eng : Universal Declaration of Human Rights

http://www.un.org/esa/socdev/enable/impwpaac360l3.htm : Implementation of the World Programme of Action concerning Disabled Persons: realizing the Millennium Development Goals for persons with disabilities

http://www.ncda.gov.ph/disability-laws/republic-acts/republic-act-7277/ : RepublicAct No. 7277 An Act Providing For TheRehabilitation, Self-Development And Self-Reliance Of   DisabledPerson   And TheirIntegration

http://www.ncda.gov.ph/disability-laws/batas-pambansa/batas-pambansa-blg-344/: Accessibility Law Republic Act 344

http://www.ncda.gov.ph/disability-laws/proclamations/proclamation-no-125/   : Proclamation No. 125 Proclaiming The Nationwide Observance In The Philippines Of The Asian And Pacific Decade Of Disabled Persons, 1993-2002

http://www.lawphil.net/statutes/repacts/ra2013/ra_10372_2013.html : RA 10372 Copyright Law Amendment

http://www.ncda.gov.ph/disability-laws/republic-acts/republic-act-6759/   White Cane Act (Republic Act 6759)

http://www.lawphil.net/executive/execord/eo1987/eo_291_1987.html   :   Granting   Postal Privileges For The Blind, And For Other Purpose

http://i.gov.ph/wp-content/uploads/2016/10/AO_NGP_20161013.pdf : the government recognizes the need to adopt ISO 40500, or WCAG 2.0, to make government web systems compliant   withinternational standards for web accessibility www.blind.org.ph : Resources for the Blind,Inc.