

Accessible Education in Russia —A way for the visually impaired to achieve equal social status

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Abstract: In this paper, we briefly introduce the Russian special education system, i.e., education for the visually impaired, hearing impaired, and people with other impairments, and higher education offered in technical colleges and universities for the visually impaired. We describe the activities of the Novosibirsk Special Library for the Blind (NSLB). Especially we mention the need for developing recorded books in DAISY format in Russia. The final section of the article is devoted to describing the impressions of the NSLB delegation to Japan regarding the accessible technologies in Japan with which they became acquainted.

1. Introduction

Special education in Russia was first made available 200 years ago. An educational institution for 12 deaf-and-dumb children was founded on October 14, 1806 in Pavlovsk, a city close to Saint Petersburg. One year later, an institution for blind children was also opened there. By the end of the nineteenth century, education for people with visual and hearing impairments had shifted from private educational institutions to special governmental schools. Schools for the hard-of-hearing, the deaf-and-dumb, and people with various hearing and vision impairments thus came into being.

2. Special Education in Russia

The system of special education embraces different forms of aid for impaired children. The differences in education concern the number of students, the form of education, the academic curriculum and program, specialization, and vocational guidance. Today, according to Russian legislation, impaired children have the right to receive general elementary and secondary education in state and private institutions, special adjustment schools and groups, and at home.

Children with partial and full loss of sight receive preschool education and training in kindergartens. Incomplete and full secondary education is given in special boarding schools for blind and visually impaired children, as well as in full-time schools and extramural courses for physically impaired people. Children and students in these special schools have various forms of visual impairment and capacity, the etiology and clinical forms of which are dependent on complications from abnormal development. Of these children, 6–8% is totally blind, and the others have various visual impairments with minimal sight sharpness of 0.05 degree. Specifically, 35% and 65% have sight sharpness of 0.2 and 0.4 degree, respectively.

Children between 6.5 and 8 years of age are admissible to educational institutions with special elementary curricula on the basis of required states of health.

Special secondary and higher education is the most important condition for impaired people to achieve professionalism and successfully compete in the labor market. However,

today most intelligent, socially active people with impairments are not assured these prospects for self-realization by the government.

However, in the last few decades, the Russian special education system has changed. The number of children with hearing and visual impairments in special adjustment groups of comprehensive schools has increased. Today, under Russian legislation, parents can choose different forms of education for their children. All governmental and municipal comprehensive schools are obliged to admit all children 8 years old and older residing in the region. However, the architectural barriers and technical incapacities of these schools are extremely problematic. Undoubtedly, legislation must take all possible measures to change these conditions.

An order to make buildings and institutions accessible for the disabled was established in Article 15 of the Federal Law, "On social support for the disabled in the Russian Federation," and Article 17 of the Urban Development Code on May 7, 1998.

Statistics show that 11 million people in Russia have various disabilities, with only 13–15% securing regular work. Evidently, impaired people with higher education are better employed and account for 60%. At the turn of the twenty-first century, more and more people with disabilities began entering universities. According to the Federal Law of 1995, "On social protection for the disabled in the Russian Federation," complete education and professional skills for people with impairments make higher social status and protection possible.

Today, twenty-four thousand people with disabilities are studying at universities. The blind and visually impaired learn massage techniques at pharmaceutical colleges in Ulyanovsk, Kislovodsk, Ufa, and Tomsk. Conductors, performers, singers, and musicians graduate from the Musical College in Kursk. The specialties of law, social protection, social and rehabilitation work with the deaf, design, and sailing are taught in Saint Petersburg. Industry specialists such as turners, millers, metal-workers, and repairmen graduate from vocational boarding school in Chelyabinsk.

Access to proper study materials has been a burning issue for a long time, and in the last decade cooperation between the different organizations responsible for the production, distribution, storage, and usage of documents in special formats for the blind and visually impaired has changed. However, many Russian special libraries had proper access to such information and education from the beginning.

In Table 1 we show data for the special education in Russia, while in Table 2 in the appendix, for comparison purpose, we show those in Japan. The populations of the two countries are roughly 140 and 120 millions (Russia is larger than Japan for 15 %), while the numbers of visually impaired students in Russia is much larger than those in Japan. This may be related with the respective criteria authorized as "visually impaired " in Russia and in Japan.

Table 1 Data for Special Education in Russia [1]

Types of special educational institutions (schools and boarding schools)	The number of schools and (students)				
	1990	1995	1998	2000	2004
Schools for deaf and hearing-impaired children	80 (12702)	84 (11413)	86 (11039)	82 (10843)	90 (9850)
Schools for hard-of-hearing and late-deaf children	69 (11369)	75 (11035)	83 (11412)	84 (10542)	87 (10350)
Schools for the blind	19 (3672)	18 (3040)	17 (2921)	16 (2950)	17 (2604)
Schools for low-vision and late-blind children	53 (8191)	61 (8508)	71 (9760)	84 (10261)	90 (10907)
Home-based schools of individual training for children with different impairments	—	10 (1172)	14 (1872)	22	23 (2972)

In Russia the criteria are more strict and there are different "degrees" of disabilities. This may explain the discrepancy, however, it may deserve for further study. Recent years it is said in Japan that parents prefer for their children ordinary school to special school for the visually impaired. The same is partly true with the hearing impaired. This may be another reason for that the portions are less in Japan than in Russia. In Novosibirsk state (oblast) where 2.69 million people is living (among them 1.43 million is living in Novosibirsk city) in 178,200 km² area, there is one boarding school for the visually impaired (73 pupils) and one boarding school for the hearing impaired (180 pupils) for 2009 year. In Novosibirsk State University 11 visually impaired students are learning various specialties. Again, for the sake of comparison, in Ibaraki prefecture where 2.97 million people is living in 217 km² area, there is one (boarding) school for the visually impaired (72 pupils) and two schools for the hearing impaired (125 pupils in total) for 2006 year.

3. Novosibirsk Special Library for the Blind

Novosibirsk Special Library for the Blind and Visually Impaired has developed an information and resource center that provides social and cultural services, adaptive information, communication technologies, and technology training. Current and retrospective cataloguing in RUSMARC format has provided full access to Novosibirsk Special Library's bibliographic resources under protocols HTTP, Z39.50. The computer databases that are annually enriched and actively used in the Library include information about the following:

- Russian and foreign rehabilitation centers and services
- organizations and experts in the sphere of rehabilitation in the Siberian region
- modern adaptive equipment and technologies

NSLB has also participated in various projects to break barriers to modern life for the blind and visually impaired. Fruitful cooperation between Russian and foreign partners has been supported by the Ministry of Culture of the Russian Federation and by international funds. As a result, the Library has been modernized and repaired to fit the needs of the blind. Additionally, the Library has obtained a rich collection of Russian and foreign equipment and software for the blind and visually impaired, and now provides access to editions in special Braille, relief, graphic, large print, and digital formats, as well as information and modern technologies that facilitate and improve visually impaired people's work, study, and general way of life.

For the last two decades, NSLB has organized many social and cultural events, seminars, exhibitions, and conferences, and important experience has been gained at Russian and international training and exchange programs with experts in adaptive technologies. Among the most remarkable events that NSLB has organized was an international theoretical and practical conference titled, "Libraries for people with disabilities and the public sector are on their way to social cooperation," which united 122 representatives from 20 countries and 24 Russian regions.

4. Standardization and DAISY in Russia

The needs of people with impairments have prompted an international initiative to create and develop special standards for information access. The DAISY Consortium, which was founded in 1996, has had great impact on the development of new technologies. The

Consortium encourages various organizations and special libraries all over the world to unite forces and make new technologies and information available for everybody.

Unfortunately, years of economic and social change have postponed modernization and development in Russia. The production of editions, books, and materials in special formats has been drastically reduced, and technological development in many spheres of life has come to a halt.

Recently, special libraries in cooperation with partners all over the world have begun to overcome economic and social barriers. The DAISY format has been agreed to be the most efficient way to provide blind and visually impaired people with access to and integration into modern information and communication society.

NSLB took this important step to catch up with the development of special technologies. Being the first Russian organization in the DAISY Consortium, NSLB teaches devices and technologies to Russian impaired people, and helps integrate these technologies into their lives. The opportunity to use computers and individual DAISY players allows impaired people access to a rich collection of documents and books. NSLB hopes to make documents in the Russian language an integral part of this collection in the future.

As an innovative and technological leader, NSLB has taken this opportunity and responsibility to integrate and develop the DAISY format in Russia. We are very grateful to our international partners for this opportunity and their important support.

5. The Japanese Approach to Accessibility—A trip to Japan

Major contributions and incentives in this direction have been made by the International Communications Foundation (ICF). In 2008, two experts from NSLB went to Japan to learn more about DAISY technologies.

This business trip was efficiently planned by the receiving country, and all the trip's aims were accomplished. First, Russian experts visited departments at Tsukuba University of Technology to learn about the priorities and aims of special higher education in Japan. One of the delegates, Yuriy Lesnevskiy, who had previously visited Tsukuba University of Technology in 1999, noticed remarkable changes in the university's technical and methodological support. The high level of the university faculty's professional and scientific work made a particular impression on the Russian delegates. The research papers and successful medical training performed by professors and students in different departments was very interesting and informative. One of the most remarkable services observed was the polyclinic run by the departments of physiotherapy and acupuncture. It was also interesting to learn how students were provided with study materials. Experts from each department displayed the stages of selection, editing, archiving, usage, and conversion of materials in special formats for the blind and visually impaired.

As demonstrated by Tsukuba University of Technology, DAISY technologies clearly offer a basis for achieving high technological levels. This basis was also determined by Russian and Japanese partners to be a priority in collaboration. Within the visit's framework, Yuriy Lesnevskiy, the Director of NSLB, gave a speech on "How resources of special libraries provide access to information and education in the Russian Federation," and delivered a presentation on the modern social services provided by NSLB. The report raised interest, questions, and discussion among those present.

The visit to the National Rehabilitation Center, Tokorozawa was another important event. The experts at Tokorozawa were among the founders of the DAISY Consortium, and the first

to integrate and develop DAISY technologies in Japan. These experts noted that DAISY books are used more and more throughout the world. They also emphasized a new direction in aid, support, and rehabilitation for people with dyslexia. We thank Hiroshi Kawamura and his colleagues for their thoughtful discussions.

The visit to the Japan Braille Library was also very informative and interesting for the NSLB experts. The Library is known as a center that provides services and produces materials in Braille and large print. The NSLB representatives received samples of the editions and other materials for the blind and visually impaired offered by the Japan Library, and today those materials are displayed at the NSLB exhibition of Russian and international rehabilitation equipment. Additionally, the Japan Braille Library presented their Russian colleagues with a unique book about Braille systems in Asian countries. This visit helped Russia and Japanese experts share their experiences and strengthen professional contacts.

The Russian delegation also visited the Japan Lighthouse in Osaka. We are convinced that this is an excellent model for realizing support for blind and low-vision people. The organization of special workplaces, self-service training and orientation, usage of technical devices such as DAISY players to feel comfortable at home and at work, equipment for physical training and sports, and a convenient and safe building fit for impaired people's needs make the Lighthouse an exemplary model of a modern multi-purpose rehabilitation center. Although it is neither a commercial nor a governmental organization, the Japan Lighthouse proves the possibility of successful self-development, answering to the requests not only of the government and of local governments, but the personal demands of impaired people.

We thank Satoshi Tsuda and his colleagues for their kind discussions.

6. Conclusions

In conclusion, this business trip allowed our Russian experts to achieve a new understanding of the issues related to modern technologies. New information and a glimpse into the Japanese model offered insight into new ways to develop special information, education, and rehabilitation services. This knowledge will be converted into practice in Siberia and other regions of Russia. As a result, new ideas and projects will be put forward in the near future. Mutual exchange of DAISY books, exhibitions, and training techniques for massage and acupuncture are among the first ideas that will be pursued. This will no doubt help Russian and Japanese impaired people learn more about the traditions and cultures of these two countries.

The results of the project are impressive. The Russian delegation is especially grateful to Mr. M. Miyakawa for the informative and interesting schedule regarding Japanese culture, traditions, and history. Our Russian experts visited several cities, and the way of life and organization of services for the blind and visually impaired made a great impression. The photos taken during this visit were also useful for informing NSLB clients about the culture and specificities of the Japanese way of life.

NSLB would like to emphasize that this project, supported by ICF, generated many ideas that will be used to improve the conditions of visually impaired people in Russia, and many projects that will help accomplish this goal are in the works. NSLB is also grateful to its Japanese colleagues for their knowledge and fruitful cooperation, and hopes that further collaboration and mutual assistance will be available for the projects planned.

Acknowledgements

NSLB is grateful to the International Communication Fund for their help in realizing this visit to Japan. NSLB would like to thank Ohnuma Naoki, president of NTUT, for his invitation, as well as Yoshinori Murakami, Yoshitoshi Ichiman, Tsukasa Ono, Tsutomu Araki, Teruo Yasuda, Hiroshi Murakami, Mayumi Shirasawa, Hisayuki Tatsumi, Norio Ohkoshi, Tomoaki Kimura, Ken-ichi Takahashi, Hideji Nagaoka, Manabi Miyagi, Masami Onose, Teruhisa Miyake, and Iwao Sekita for their great support, professionalism, and cooperation, which enabled us to understand and learn more about information technologies in Japan. We also thank Alla Sergeeva, of Novosibirsk University, for her work in liaising with the Japanese and Russian parties involved, as well as for translating this report from Russian.

References

- [1] http://www.socpolitika.ru/rus/social_policy_monitoring/events/document739.shtml
- [2] Ministry of Education, Culture, Sports, Science, and Technology (Japan), http://www.mext.go.jp/a_menu/shotou/tokubetu/002.htm

Table 1 Data: Education for the Visually and Hearing-impaired in Japan [2]

Types of special education (separate class for special education)	Number of schools	Number of students				
		Kindergarten	Elementary school	Middle school	High school	Total students
Schools for the visually impaired	71	268	678	448	2,294	3,688
Special classes for low- vision persons	256	—	252	83	—	335
Schools for the hearing impaired	104	1,263	2,210	1,279	1,792	6,544
Schools for the hard of hearing	660	—	822	354	—	1,176