

COOPERATION AS PEAK OF COMPASSION

A unique international program (PEN-International) has made a new step forward at Bauman.

The first thought coming to one's mind is that this is something needed by everybody else, too, from primary school kids to undergraduate students and even highly-qualified professionals seeking to develop their proficiency level. It is needed by those in engineering and humanities, by theorists and researchers in any branch of science.

But it is only fair that the weakest within these walls, that is those who are now referred to as "people with special needs", happen to be the first to receive the best of the best. "Special needs" are compensated for by special facilities, which help a handicapped person stop feeling inferior and become a productive member of the people's community. Here at Bauman these special facilities are intended for its 170 hard-of-hearing and deaf students, who are taking a training course on a par with their hearing peers.

Scientific Wednesday has already told our readers about the Center for Complex Rehabilitation of the Hard-of-Hearing based within Bauman Moscow State Technical University. The tradition of training deaf students together with hearing students (which certainly requires additional efforts on the part of the faculty) has existed here since 1934. But at the turn of the century state-of-the-art information technologies have not only improved the teaching methods but have also placed the training process on an entirely new level. Not so long ago the wonderful classrooms and the computer class of the Bauman Center for Deaf Students, where hard-of-hearing students get adapted to the general training cycle and get all the methodological support needed to master engineering subjects and get a degree, seemed a miracle. Participating in these programs are more than a hundred faculty at forty University's Departments.

But nowadays such tasks are no longer accomplished on one's own. PEN-International, a unique international project, which is one-of-a-kind in the world, has integrated the efforts of today's leaders in educational and social rehabilitation. Work is underway to create an international postsecondary education network for the hard of hearing on the basis of state-of-the-art technologies.

In practice, this means barrier-free access of deaf people to the world culture and the world's entire knowledge base and competitiveness on the world labor market. The National Technical Institute for the Deaf (NTID) at Rochester Institute of Technology (RIT), USA, (where 1100 deaf and hard-of-hearing students from all over the world live and study side by side with 14,000 hearing students), Tsukuba College of Technology for people who are deaf and visually impaired of Tsukuba University, Japan, (the college, which was modeled after NTID, opened its doors in 1990 and was the first of its kind in all of Asia), Tianjin College for the Deaf of Tianjin University of Technology, China, are all participants in the project and partners of BMSTU. These institutions constitute the main centers of the program, which will develop the interconnected network within their respective countries and regions. The project is funded by The Nippon Foundation of Japan.

"Getting in touch" with Rochester or any other participating institution, contacting any library, archive, engineering or cultural center, listening to lectures, participating in a workshop or a conference anywhere in the world – all this can be done via such a node referred to as a multimedia/distance learning laboratory.

The tape is cut, and behind an ordinary-looking door in an ordinary institute corridor there is something which looks more impressive than any advanced and most sophisticated classroom. Dr. Fedorov, Rector of BMSTU, scissors in his hands, admits that “we are not strangers to hi-tech but this informational technology miracle is really amazing”. Guest from Rochester Dr. DeCaro, Director of PEN-International, paraphrases Robert F. Kennedy’s famous words, “Some people see things as they are and say why. I dream things that never were and say why not? What you can see here is your dream, which has come true thanks to this “why not?” that became a motto of many humane people, education leaders, engineers and construction workers in Russia.”

Bauman Hymn struck up and it was in the line with the lofty atmosphere of the ceremony. It turned out that hymns are also capable of breaking through deafness – the fingers of American and Russian sign language interpreters started moving making the words clear to deaf students and the members of the international delegation: “MSTU is our vocation and lifework, repository of science, heart of research...”

Taking seats in front of flat screens of computer displays leaders of the international project make sure that the lab has been created in compliance with the high standards of its programs. Professor Alexander Stanevsky with the help of the Center’s employees demonstrate informational and methodological facilities of the new complex. Lighting control, transformation of the room as a whole and each work station – just press a button and the screen goes down making room for your papers and textbooks. The interior design makes it possible to rearrange the tables from rows into a circle depending on the event: a lecture, an object lesson, a conference, etc. At the same time, each participant can use a miniature video camera and turn from a listener into a presenter and appear on the screen. And not only within this room. A connection is established with one of the University’s classrooms and we can witness an exchange of greetings. In the same way communication will be carried out with international partners.

Now let’s move from individual workstations to the “smart board” on the teacher’s podium. The smart board is a huge screen, which looks like an enlarged computer monitor. Moving a pointer like a computer mouse the teacher transforms the board into a computer screen or an ordinary (not quite ordinary, though) teacher’s board. We can see files from any database, including those from the Internet, changing one another on the screen. Then we can see a new text or design taking shape on the clean board, with the whole spectrum of colors and designs of the graphics editor used. Then a scaled pattern appears on the screen for a new graph to be built. And all this information can be transmitted to any selected point in any part of the world for discussion and consultation. The capacities of the system are diverse: file fragmentation, enlargement, combination, making electronic notes for students, to name but a few.

While the electronic facilities mentioned above are of foreign make, the nearby mirror board has won a patent for the Bauman Center. With its help the audience can see not only the back but also the face of the teacher explaining and writing things on the board, thus helping lip readers understand the subtleties of the subject. “This is a boon for a woman teacher,” the audience is smiling. “You can look at yourself in the mirror while working.”

On behalf of the distinguished “inspectors” from PEN-International, Dr. DeCaro himself is presenting diplomas to the creators of the laboratory, who have achieved a truly world-class level in Russia. They are Sergei Burov, the project architect; Victor Saprykin, the manager of electronic systems’ assembly and installation, both representing project contractors; “Energia” Rocket and Space Complex for the satellite support, as well as some employees and students of Bauman... It is

symbolic that the intellectual contribution of Project Coordinator Maria Shustorovich, a Professor of Mathematics from Rochester is noted along with the merits of Andrei Shmygol, a Bauman student who won the web site design contest. This is essentially an embodiment of democratism of the notion of “cooperation network” incorporating both continents and educational structures’ levels.

Not so long ago such network was only a dream. Vladimir Bazojev, Chairman of Moscow City Society of the Deaf is recalling his visit to the USA for a further education course in the mid-90s, where he saw such laboratories, which made him feel envy. Now we see this level in Russia, too, but this is just the beginning of a full-scale attack of education on deafness.

And indeed, Ishii Yasunubu, the Chief Executive of The Nippon Foundation, says that PEN-International will go from the training of hard-of-hearing students in the world’s best centers to the delivery of the best education “to the doorstep” of those who need it using such an extensive network. All in all in the world, the implementation of this project will help six million hard-of-hearing and deaf people get education and improve their professional level. Following Russia and China, the project will be joined by Philippines and Thailand.

And Bauman in Russia will be joined by a whole range of other university cities. The representatives of our Ministries of Education and Labor assures that four other cities are ready to open such laboratories for disabled students. They are Ekaterinburg, Krasnoyarsk, Vladimir and Kazan. For them Bauman will become the same as Rochester is for the world-wide network. And the Government of Russia and leaders of industries and business should become more and more aware of the fact that investing into this sphere means not only a humane effort but also a substantial reduction of handicapped-related expenses as people who can support themselves and pay taxes are in fact a state income item.

Having taken their legitimate seats at their work stations after the distinguished guests the students are listening to Dr. Robert Davila, who is speaking about career opportunities for the deaf. A legendary person, the Vice President of RIT for NTID is a brilliant example of overcoming the disability, “Within a period of 35 years I have participated in the education of five thousand students. Some of them became doctors, several dozens became lawyers, and most of them – engineers and social workers... Transition of such a person from the sphere of primitive manual labor to intellectual hi-tech activities constitutes both his/her social victory and a moral success of the society.”

That is why in the lobby and corridors there is a continuous discussion of different options and proposals connected with career opportunities of the Center’s students. We can argue about the jobs of a pilot or a military man, but in jobs which require computer skills, concentration, engineering or artistic talent a specialist who has grown on this basis will be able to compete with any “full-fledged” contender.

Andrei Tarasov

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