
communication between the concentric circles. The inner circles of every family, the relationship between child to another child in the group, between parent and (another) parent and between the system and the parents.

When a child was accepted into the program, so was his/her parents and family. The daily routine was created with this in mind.

The operating of the nursery reinforced the active involvement of the parents in the entire process. Beginning with the individualized program for the child as mandated by The Special Education Law (1988), which was created with the active and full involvement of the parent.

Conductive Education is the system which tries to provide a way of life for the family and child as one, and as such, the family is an extension of the nursery and vice versa. Its application was established through the initial home visit prior to the (formal) evaluation, which explained the principles and the mandated family coordination.

This framework provides for a weekly activity (at the nursery itself) of parent-child activity; a day of active work devoted to integrating parent and child, parent to parent, parent to conductor. It is a day where we together we learn and strategize solutions for problems and orthofunction.

The family is further strengthened by regular home visits by nursery staff. These visits are devoted to developing individualized approaches for addressing the specific family needs. The visit, as well, reinforces the interrelationship of the child, the center and the family, and creation of one larger

circle.

The nursery's rehabilitative program is, augmented by the involvement of a psychologist who provides the family with additional tools to address their successes and failures,

The operative system involves parents in the steering committee of the nursery in particular parent's representative at Board of Directors of the "Tsad Kadima".

The model described above presents a way in which that the birth of a child with dysfunction can turn into an orthofunctional experience, through the acceptance of the basic principle that the family represents the inner strength of confrontation and the key to success.

For the sake of clarity, this paper uses the masculine. It should be understood that both genders are included.

21. Professional Development and Training in Conductive Education - An Australian Perspective

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Claire Cotter

Gayle Porter

Lynn Carter

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Professional competence and quality control are issues for systems worldwide and for us in Australia, the issue of training professionals working in educational settings with students with physical impairments, is paramount. Existing courses for teachers and therapists tend to be more generic in nature with a broad disability focus.

The development of services inspired by conductive education has been a gradual process in Australia over the past twenty years and has been shaped by the notion of cultural relevance encompassing educational philosophy, organization and practice and current therapeutic interventions. A conceptual model, *principles of conductive education*, continues to develop within this framework that utilises best educational and therapeutic practices.. It is an educational option for a broad spectrum of children with physical impairment, many of whom have severe and/or multiple disabilities. Teams of conductors, parents, teachers and therapists operating along the collaborative continuum provide services.

Professional development and training is essential to support the growth of this model. Training in *'principles of conductive education'* must address conductive education within the contred of current educational practice. This includes inclusive curriculum models, family context principles within early childhood settings, the curriculum framework within schools, additional therapeutic practices, and collaborative teaming and education planning.

Distance and cost limits our options in relation to formalised training links with the Petö Institute, however training in conductive education has always been a goal and this has been achieved to a

certain point, with the postgraduate course for teachers and therapists, *'Developing Programs for Children with Motor Disabilities: Applying Principles of Conductive Education'*. This course offered through a University in One State in Australia, is now in its fourth year and approximately eighty teachers and therapists have completed its requirements.

In another State, professional development and training for teachers and therapists specialising in the education of students with a physical impairment has been identified as a priority by that state's education department. As a result of this, a major project is currently underway which will see the development of a course specific to the education of students with physical impairments with university accreditation at various levels from Graduate Diploma through to Masters level.

Modules on Conductive Education will be an integral part of this course. It is envisaged that practitioners, including conductors, teachers and therapists with recognized expertise in their own professional background as well as wide experience in conductive education, will be involved in developing the materials.

Course materials are being developed in distance learning mode using interactive multi-media technology. The use of this technology, will enable practitioners from different parts of the country to access training. There is also the potential for flexibility in use.

In this presentation, the development of these training initiatives will be outlined.

22. A New Paradigm : From Segregation to Integration

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International Pető Institute, Budapest, Hungary

Motto: "Ideal is like a star which we cannot ever reach but like seamen we follow it by a compass" (Armin Gugelmann)

The development of humanistic philosophical approach during the past fifty years radically changed the judgement of „different“. "Different" is not to be interpreted as negative from the start but dysfunctioning people are rather considered as a variation of normal. Because of the change of attitude the educational care for the disabled people has been interpreted differently and is still changing. A milestone of this change is a conference at the United States in 1973 where the differentiation of the disabled was banned by law.

In Europe, the first considerable steps against segregation were made 20 years later at the Strasbourg Conference in 1992:

"The aim of rehabilitation of disabled/dysfunctioning people is to provide the largest possible chances for social and economic participation, for independence, regardless of the nature of the disability". (1)

The next decision, among others, was the one of the UN to influence the attitude of European countries toward the disabled and was adopted by the General Assembly in 1993:

"Member states should strive to gradually integrate special education institutions into the system of mainstream education" (2)

In 1994, the UNESCO World Congress in Salamanca drafted the demand of programmes that enable the education of special needs children in

mainstream schools by the year 2000 to be realized with the powerful help of world organisations like UNICEF, WHO and the World Bank.

In Hungary, the second part of the 19th century brought the development of disabled children's education: special institutions were opened for the blind, the deaf, the mentally disabled and for children with speech problems. From 1921 disabled children are part of compulsory education. The College of Special Teacher Training was established to meet the needs of an injury-specific teacher training programme. The traditions and well developed system of institutions of Hungarian special education and the personalities with a sense of vocation in the past formed a heritage which did not question the grounds of segregated education for long. Nowadays, the approach to European standards helped to reinterpret the notion of learning in Hungary:

„Human learning is not only the acquisition of socially useful knowledge but also to learn the security experienced in interaction and mutuality and to accept and to be accepted, to learn how people of various kind and various way can live together. From this point of view the disabled are not excluded from integration, integrated education or from the common learning in its large sense..." (3)

The issue being treated from any point of view it is evident that both special education and mainstream education are aware of the problem: due to the segregated education of the disabled their interpersonal relations are not satisfying, they do not function appropriately and, on the other hand, the result of segregated education is the serious

disturbance of integration into normal society. Nowadays one of the main issues of education policy is how integrated education can be realised, how the mistakes can be avoided, how the best way can be selected.

„Aversions to every new and mainly unknown emerge, refusal can often be attributed to ignorance, to rigid adherence to what has been the routine and to the fear of something unknown. „ (4)

The integrated education and teaching of normal and disabled people is a crucial issue all over the world.

Can we say that Petö and conductive education were decades ahead of time? Dr. András Petö and his colleagues were against segregation from the birth of the method if we take into account that the principle aim has always been the achievement of the highest possible level of social integration of the disabled. In order to develop the attainment of social roles our method gives preference to education in group to prepare children for „life“ as segregation, isolation, individual education are not expedient. Difficulties can only be eliminated and prevented if motor disabled children are educated and taught in a group appropriate to their age and to their level but with individualised aims. (Kozma 1993)

In conductive education the notion of integration does not only covers the participation in mainstream education but the pedagogue carrying out education possesses the characteristics of integrated educator. Following the few initial experimental years, Professor Petö drew the

conclusion that even the best specialists, making the utmost of their profession cannot achieve the same results in a heterogeneous team as the multifunctioning specialists, the conductors. Fifty years ago Petö realised the problems of today's integration issues:

- Education will focus on the injury if special teachers teach and educate
- mainstream teachers are not prepared for the problem and success is doubtful.

The two above basic matters made Petö realise that it is the conductor who should carry out the education of the motor disabled with disintegrated functions in an integrated educational process in a homogeneous team according to uniform attitude and uniform requirements on the basis of active learning and activity, empowered with general and special educational knowledge.

During the past decades the world tends to make the most possible disabled children participate in mainstream kindergarten and school education. According to European statistics 0.4% of school-age children in Italy and 3.8% in the Czech Republic attends special education institutions.

Looking at these attractive data the question may rise: what is behind them? Are the societies so tolerant? Or integrated education is a lawful option even if the standard is not the most adequate? Or some countries might not have a network of special institutions and adequately trained specialists? These and similar questions are asked by educators and education specialists while the tendency is to achieve the integrated education of more and more disabled.

Finally, without going into the details of the trends, I would like to turn back to conductive education, its modernity and progressive attitude with the following numbers: during the past two decades 1449 children were discharged to mainstream educational institution, i.e. it seems that in Hungary the integration of disabled and normal children can be practised.

The way of achieving integration from segregation raises several social and educational policy issues from acceptance through financial and infrastructure background to the training of professionals.

NOTES

- (1) **Ágnes Kelemen:** A comprehensive policy of the rehabilitation of disabled persons; Council of Europe interim report. Strasbourg 1992, 5.p.
- (2) UN General Assembly on 20 December 1993, Order No. 6. item 8
- (3) **Ágnes L. Engelmayer:** The lessons of international integration models for national use. In: ALTERN Brochures. 5. 11.p.
- (4) **Ágnes L. Engelmayer:** The lessons of international integration models for national use. In: ALTERN brochures. 5. 12.p.

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23. Applied of Conductive Education in China

Shuchun Li, Professor, Honorary Director

Xiaojie Li, Professor, Director

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Xiangcai Meng, Vice-President

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The rehabilitation for CP children started from the early period of 1980th as same as the stage of Chinese Medical Rehabilitation in China. The number the professional person of Chinese CP Rehabilitation and Research is from less than 100 at beginning to a steady and quit big number at present as the guiding of professor Li Shuchun. The number of the rehabilitation facilities have been set up in many provinces, cities and areas until now from only one in 1987 in Jiamusi which could serve to CP children such as the rehabilitation centers, the department of the hospitals and the community based rehabilitation. However China is a developing country with wide areas and the biggest number of disabled children who are most of them living in very far and very poor areas. Medical rehabilitation started later in China therefor there is big distances in rehabilitation theory, education, practices, special facilities, experts and skills then the developed countries.

1. Introduction and development of Petö system in China

(1) The contribution of Dr. Murai

When the first Chinese Rehabilitation Center for CP children was setting up in Jiamusi in 1986, Dr. Murai came to visit Jiamusi to see the situation of Chinese rehabilitation and to introduce Petö system to us. At the same time the experts with him to give us advice and teaching of Petö method, Dr. Murai has started to take the staffs our Center to do study and practice of Petö system in his Center of Osaka since 1986.

Dr. Murai attended the Chinese Pediatric

Neurological Congress and the First Chinese CP Conference introducing Petö system to whole China.

Dr. Murai has visited our Center, attended Chinese CP Conference many times to do advice and teaching of Petö system, sent the experts and tacked our staffs to Japan to learn Petö of conductive education continuing in the last years. He concerns the rehabilitation programs and works in China with doing the big contribution between China and Japan building the friendship and the exchanging programs.

(2) The efforts of Professor Li Shuchun

Professor Li Shucun is the originator of Chinese rehabilitation for CP children. He established Chinese CP Association with learning and taking the advance theory and methods widely in the world. Because of the introduction by Dr. Murai Professor Li was very interested in and paying more attention to Petö system. He has decided to learn, obtain and spread Petö system in China since 1986.

Professor Li has visited many times in Wua La Xi Bei Center to do study and attended the conferences in Japan since 1987. He visited some facilities in Hongkong, met Ms Fang Xinshu and other persons and to study the experiences of Petö system in Hongkong. He also invited the Hongkong experts to China improve the exchanging programs between Hongkong and mainland.

Professor Li went to Wuhan to give the lecture in the first Petö course in China getting a highly appraise. He has been Hungary with Dr. Murai and

Mr. IMAI in 1992 to visit Conductive Education University and to meet the president of the University in order to learn more and to get more impress of Conductive Education. In 1998, Professor Li suggested to organize a Petö preliminary group of Conductive Education during the 5th Chinese CP Conference in Hefei and more than 70 persons joined the group.

It should be stated clearly of our determination and confidence that there are more than 10 persons to attend this congress.

(3) The situation of the development of Conductive Education in China

A. The 3 courses have been made by UNICEF, Chinese Health Ministry, Chinese Disabled Persons Federation and Hongkong Spastic Society in Wuhan and Hebei province. There were 111 students attended the courses. The teachers of the courses are Ms Fang Xinshu and other experts including Chinese. The professional contingent of Petö system has been trained by the courses.

B. Conductive Education has been developed in Jiamusi, Wuhan, Shandong, Beijing and other areas in China one after another. Most of these areas developed Conductive Education in the rehabilitation Centers or the facilities where there are collective disabled children. These centers and facilities belong to the departments of medical health, welfare and disabled persons federation. Some of them applied Petö for CP children in 24 hours of the daily living, some during the eating, dressing cleaning and so on. Others applied Petö join the other methods, beside activities of daily living making the special

classes every day.

2. Conductive Education applied in Prevention, Treatment and Rehabilitation Center for CP children of Heilongjiang Provence in Jiamusi University

The Rehabilitation Center is the first Center for CP children in China which was set up in 1987. Our Center have started to learn and applied Conductive Education since 1987 and systematic applied since 1992 for more than 200 CP children. According to the situation and the type of CP children who were divided in the different groups with 3 conductors each group making the different programs for each group according to the aims of them. The children follow the beats of own saying become the orders to own trying and activities. Conductors just give them the guiding, correcting and little-helps or the helps through the instruments. The same programs were applied repeatedly in the certain period than as the improvement of the children to make the new programs to go the next steps. We applied Conductive Education in 24 hours of the CP children in patients including daily living activities. PALCI were applied as the evaluation of these children to see the result of rehabilitation of Conductive Education. The results of compared indicate that PAL 3 items are obviously different between the children coming the Center before the program and leaving the Center after the program.

3. Some ideas

(1) China is the largest developing country with the biggest number of the disabled people and CP children. All of them should have the same right to get education, social joining, life with the

love, working and contribution to the society.
The people of the society in the different fields should try to producing the proper condition to develop rehabilitation programs including medical, educational, occupational occupational and social rehabilitation to improve more and more number of them to join the main society.

- (2) Conductive education is adapted applying in China as there are not only public medical rehabilitation centers/hospitals or departments, some facilities of welfare and disabled persons federation but also some private facilities
- (3) Community based rehabilitation is improving quit quickly in China which is the very good field for applying Conductive Education as there are many stations and points of CBR programs.
- (4) Establishing Petö system and developing the education, training and the facilities in different steps are necessary in China. The activities of the sciences for Conductive Education regularly is the important way to improve Petö programme.
- (5) Improving and applying Conductive Education should be according to the different situation to choose the different way as well as learning and applying as step by step.
- (6) We wish to get the supports from international Petö System and to get the helps and supports from the governments and organizations in China.

24. Conductive Education for People with Severe Disabilities — Therapy and Training to Help People Live More Actively —

Akira Kawamoto, Assistant Facilities Director and Conductor
Otaki Warashibe-En, Japan

Introduction:

Warashibe-en has been conducting education by running rehabilitation facilities for people with severe disabilities. One was established in 1992 in Otaki, a village on Japan's northern island of Hokkaido. Another Warashibe-en campus was later opened in the town of Urakawa, also in Hokkaido. We are active in what is known as Conductive Education, and we are constantly going over our lesson plans and curricula for the severely disabled.

As we see it, the most important purpose of the therapy and training we provide is to help people lead more active lives. To achieve this goal, we offer a variety of activities, such as farming, raising poultry, carpentry, painting, making soba noodles, and horseback riding. There is also a soba shop to run, and we give them a place to practice their skills for living alone at our independent living facility.

Following is a description of the horseback-riding programs that Warashibe-en campuses have offered for several years.

Horseback-riding at Warashibe-en:
Horseback riding programs for people with disabilities are catching on in Japan. Such programs have two main purposes: first, to provide sports and recreation opportunities; and second, to provide therapy and training. With these two purposes in mind, we emphasize the following principles in our horseback-riding programs:

- 1) Time on horseback is not a stand-alone element of the curricula.
- 2) Horseback riding is just one of many therapeutic and training activities.
- 3) With assistance from us, the rider also helps take

care of the horses

- 4) Our riding programs reflect Warashibe-en's overall goal of helping people live more actively.

Horseback-riding skills:

Horseback riding is one element of therapy and training at Warashibe-en. Accordingly, we take pains to integrate the lesson structure into the overall therapy and training. The program starts in the morning with basic exercises that take students from a reclining position to walking. Riding instruction begins in the afternoon. Following is the lesson structure, divided into morning and afternoon components:

- 1) Exercises (morning)
 - Reclining skills
 - Sitting, standing, and walking skills
- 2) Riding skills (afternoon)
 - Sitting, standing, and walking skills
 - Horseback skills
 - Individual standing and walking instruction

The reclining, sitting, standing, and walking skills, which play such an essential role in everyday life, are arranged in a logical progression, from morning into afternoon and from learning the basics to applying them. The horseback-riding skills follow the same progression.

Case studies - Participation in horseback-riding skills and aggressive activities: The following case studies provide a glimpse into our conductive education activities, horseback-riding for the disabled and horseback-riding skills.

25. The Place Where Two Correlated Selves Meet

Mina Chinju, Warashibe-En Graduate, Japan

When I hear the word “Warashibe”, I always remember two persons. One is Mina Chinju when she was receiving Conductive Education for four- to six-year-old children at Warashibe institution. The other is Mina Chinju today who goes to Warashibe once a week to train herself earnestly for a good horse rider. Both persons in my mind cry humanly, get angry sometimes, and smile pleasantly.

Perhaps, I remember little girl Mina because she was strongly moved by what she experienced at the institute. It crashed her image of the world that was planted in her mind through her experience with structured Bobath method. Up until she was admitted to Warashibe institute, she was passively receiving the training from her mother and therapists. She thought that the world should be monotonous.

I suppose that I also remember Mina today because I was thrilled when I first rode a horse and riding is now the only experience that enables me to know what I really think deep inside myself.

So, let me talk about something about these two persons.

First, about little girl Mina. For her, the greatest experience at Warashibe was summer camping in Toyama when she was six years old and in the third year at the institute.

I still don't know why we were brought to such a remote place among the mountains. Anyway, we got off a bus and began walking. The paved road was easy to walk, but only a few minutes later, it changed to unpaved, narrow winded mountain path. Accompanied by conductors, we walked each

carrying their own canteen and knapsack, and we arrived at the destination at last two hours later. The little girl, after washing her face with spring water, drank it. She felt it sweet and it was the only time in her life until today that she felt water that way.

The little girl had many wonderful experiences there. She took a bath using a drum can bathtub. She made a fire in a fireplace using leaves, wood and newspapers, and maintained it by fanning it with a bamboo blower. She was also assigned to cook a giant “okonomiyaki” (a kind of unsweetened pancake fried with bits of vegetables and seafood) for scores people waiting for the dinner. She did well until spreading batter and ingredients on a hot plate, but she dropped it on the ground when she tried to turn it over to cook on the other side. People around her just laughed, and no one complained about it. They were all large-hearted.

Naturally, we had to have only smaller amount of food for the dinner. Due to hunger and curiosity, the little girl had scorched rice at the bottom of a portable pot for the first time in her life following a conductor. It was delicious with “shoyu” sauce put on it, although hunger should have helped her feel that way.

On the last night of camping, we played a lot of games around the campfire. The little girl competed with a boy in a game to cut a bamboo tube faster with a saw. She concentrated in cutting the bamboo with a saw, but when she cut about half of the tube, she felt fatigue in her hands. So she put the saw down, and tried to break the bamboo with her arms. However, her arm strength was not strong enough to break it. She started cutting it

with the saw. When the two-thirds of tube was cut, she again tried to break with her arms, this time on a standing position using her weight. It broke quite easily with a sound. The little girl shouted in her mind feeling relieved and satisfied, "I won! It's over. I can meet Mom and Dad tomorrow." The boy continued to cut it with a saw earnestly, receiving great cheers from all spectators. Soon the boy finished cutting. Without any scolding, a conductor gave a gold medal to the little girl and a silver one to the boy. She was excited about what she did. I remember this experience with a thrill and strange embarrassment.

The camping was the greatest highlight of the little girl's life at Warashibe. She learnt through her own experience that the steeper a mountain is, the more one must believe one's potential and that if one proceeds without getting cold feet, one will obtain something valuable.

My reminiscence of Warashibe institute include days when no air conditioner was used and there were some unsanitary aspects, but in my general view I conclude that I received plenty of love and learnt wisdom necessary for my life from conductors, friends and many other people at the institute. At the institute, I also led a life that focuses on living with nature and, my life there was shining. Taking the incidence of my breaking a bamboo stick in a campfire game for instance, such action should be condemned by Bobath method instructors because they want to teach right form of movements through repeated practice. On the contrary, I was encouraged with applause and the gold medal. I believe that it took place that way because of Conductive Education employed by the institute, and that such an approach was suitable for

curious little girl Mina.

Next, let talk about Mina Chinju today. Like other healthy boys and girls, I entered an ordinary local elementary school at age seven, and studied among them for 12 years until I graduated from a high school. This experience was advantageous as well as disadvantageous to me. I had to act at the pace of normal people. It meant that I had to move as quickly as possible – an environment completely different from Warashibe institute where children are afforded a lot of time and advises, although they are not physically assisted by conductors. Among healthy students, I knew the severity of my physical handicap in comparison with others, and tried my best to be able to catch with their action speed. It helped me develop physical functions. In fact, I made tremendous improvements compared with my childhood. That constitutes part of self-confidence.

Upon graduation from a high school, I had one-year vocational training that led to my employment by a company. I know that I am a relatively privileged handicapped person considering that I have no serious financial problem and I live in a community where people are cooperative to the disabled.

However, by objectively observing inner myself, I must say that my state of mind was very different from such favorable outer appearance of mine. In reality, I could barely maintain mental balance by refusing myself because I sustained a trauma from tremendous pressure and inferiority complex that I had during the days when I had to adjust myself to rapidly changing environment. The trauma still exists somewhere in my mind like a mine. I encountered with riding in such a state of mind.

I first rode a horse six years ago when I was a second-year high school student. I just wanted to ride from simple curiosity, and it was beginning of my receiving regular riding training. I rode just for riding pleasure. It wasn't bad because I had very good time on horseback. However, I began to seriously train myself to become a good rider due to an incidence in November last year. That was a great change for me that every one who knows me agree, although my riding technique has not improved so much since then. In the past eight months, I fully realized that how it is enjoyable and difficult to advance a page. Hereafter I would like to elaborate on my riding training, based on accounts in daily records of mine and instructors'.

My major riding skill advancements so far include:

1. Stable horseback sitting which enabled stable holding of my posture when horse is going at a walk
2. Holding the right position of the rein
3. Making voice for horse controlling

About 1st achievement:

Riders are required to hold their posture upright against the ground and put center of gravity as low as possible. When I started riding seriously last November, I was dependent on the reins and stirrups too much due to the fear for a fall that I had never experienced. Using reins and stirrups helped keep riding posture stable, but it also made horse controlling more difficult because it restricted my limb movements in giving signals to the horse. To solve this problem, an instructor advised me not to have my feet on the stirrups when I practice horseback physical exercises right after mounting a horse. I took his advice in December last year. When I first rode without resting my feet on the stirrups, it was frightening and I knew I was

unconsciously too dependent on the stirrups.

I gradually improved my ability to keep riding posture balanced without using stirrups. In January this year, my horse suddenly began to run while I was having horseback physical exercises, but I could stay on horseback and keep my posture balanced. Through this incident, I knew that my ability to balance on horseback was improving and came to fully recognize critical importance of such ability. I trained myself earnestly to the extent that I could have confidence that I will not fall so easily. Now I can practice physical exercises on horseback without using the stirrups or reins when my horse is going at a trot. During the exercises, I can put my both arms on a level or upright position or put one arm at angle and other at a different one.

About 2nd achievement:

Before I started having serious riding training, I had knowledge of where in the rein I should hold. However, due to my weak grip, I could not keep holding the right position, thus having difficulties in controlling my horse through the rein. I tried a stick that was invented as a grip. It was made easy to hold and had the length of a relay baton. It was fixed to the rein with an adhesive tape. I also tried a ring made of cloth (a ring used in quoits will do). However, I concluded that direct holding of the rein is suitable for me, and I now use a glove with rugged surface for greater friction. My rein has two knots at the standard gripping position and I hold the rein between these two knots with my gloved hand. I have been using this simple method for some time. If my gripping moves out of the right position, I can feel it as my fingers hold a knot. In such an occasion, I stop my horse and grip the right position of the rein before let him go. Although this

method does not solve the rein holding problem completely, it is more advantageous than other methods in that I can correct the holding position.

About the 3rd achievement:

Among these three achievements, this gives me the greatest pleasure. The table below shows my progress with regard to horse controlling vocalization:

Progress of Vocalization

Date (Month)	Volume of voice				Remarks	Secondary ⁴⁾ motive
	1 ¹⁾	2	3 ²⁾	4		
Nov. '98	-	-	-	/	No utterance due to fear of people around	Wish to participate in the next year's riding meet for the disabled
Dec. '98	-	△	-	/	Weak utterance forced by instructor	
Jan. '99	-	△	-	-	I have to say "Trot" to let him trot, but I can't.	Lessons of trotting and its maintenance started.
Feb. '99	△	○	-	-	I know when I should utter, but have timing problem.	
Mar. '99	△	○	-	-	Too much concerned with other controlling actions. Have intention to utter, but voice does not come out.	After my first fall, I realize the need to utter properly to communicate with my horse.
Apr. '99	◎	○	○	○	I am surprised as I could say "Move" naturally.	I first had feeling of togetherness with my horse, not strong though.
May '99	◎	○	◎	○	I fully realize my horse responds to my voice. I can utter at any time.	I was very timid of making voice before people, but came to utter loudly on horseback.
Jun. '99	◎	○	◎	◎	I am able to say "Trot" if people are watching me.	I wish to meet expectations of volunteer instructors who encourage me earnestly.

Notes:

- 1) 1 = Utterance of "Go", 2 = Utterance of "Stop", 3 = Utterance of "Move", 4 = Utterance of "Trot"
- 2) "Move" is instruction not to stop when changing the rein grip or other actions.

- 3) — = No utterance, △ = Weak utterance, ○ = Conversation-level utterance volume, ◎ = Controlling-level utterance volume
- 4) Primary motive is my extreme inferiority complex that I have utterance problem.

By repeatedly making these achievements, I could have a sense of accomplishments and satisfaction and constant desire for improving my riding ability. Today, I am taking hard riding lessons with pleasure.

I am now able to solve a problem concerning an aspect of my riding skills when an instructor indicated it. My current major task is to improve my overall performance by overcoming all of these specific problems.

However, serious riding training has changed my view on my handicap. The harder I try to improve my riding skills, the more I realize my physical disability. I sometimes seriously desire, "I do not ask too much. I just want to have normal legs only when I am on horseback." I even get angry at my arms that move against my will and legs that do not move as I ordered, feeling that I do not need such arms and leg anymore. It later causes in my mind a guilty conscience.

I do not strongly feel my physical disability when walking on the street or going up or down the stairway, although I am fully aware of my handicap to healthy people. However, on horseback, I am forced to be strongly conscious of physical affect of my cerebral paralysis, especially on such an occasion that I have to use my leg to control my horse. I try hard to move my left leg, but its response is too slow. On such an occasion, I am not only greatly disappointed, but also refuse, though only occasionally, to accept the reality, feeling that "I do not want to see myself who suffers from disability anymore." Time is required before I come to think, "That's one of the things that I cannot do well."

I didn't feel this way when I was just riding a horse just for pleasure, but now I feel a sense of achievement and satisfaction and self-denial alternately. I think this tends to make my mental and physical balance lost

Still I go to Warashibe to ride a horse. Reasons for this include pure physical pleasure, nonverbal communications with a horse, rapport with the training staff based on exchange of views, joy of feeling seasonal changes with horses and many others.

Recently, I became to realize that I ride a horse probably because I have cerebral paralysis. I encountered with riding at Warashibe to where my parents brought me because of my cerebral paralysis. I think I have finally noticed this simple fact. With this understanding and ample aggressiveness, I plan to participate in a riding meet for the disabled to be held in October this year. I will continue to devote myself in improving my riding skills until the last minute so that I can enjoy riding in the meet.

In conclusion, Warashibe in my mind is not the place to have education classes or riding therapies. Warashibe represents the process where a little girl who was crying every day for her parents develops her personality and physical functions and improves her social integration ability through association with her friends. The experience there constitutes my fundamental view of people. It is the basis on which Mina Chinju today, including she as a devoted rider, depends in many ways and forms.

Taking advantage of preparing this speech, I reviewed my past experiences and found that my

roots exist in Warashibe. I am happy to have clearly understood that. I am also happy that I could fully realize that I am making a new step toward self-realization.

It is especially moving that my mother-in-law, who has been a pillar of support for me, has also realized that I am making a new step toward self-realization.

I am sure that my mother-in-law will continue to support me in my new step toward self-realization. I am sure that my mother-in-law will continue to support me in my new step toward self-realization.

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26. Conductive Education Research: Acquisition and Maintenance of Developmental Skills and Cost-Effectiveness Analysis

Kathleen Liberty, Senior Lecturer

University of Canterbury, New Zealand

Paula Wilson

School of Business Administration

1. A Comparison of Skill Acquisition by Children Enrolled in Conductive Education and Children Receiving Other Early Intervention Services.

The purpose of this study was to evaluate the effectiveness of year-long Conductive Education-based programmes for pre-school children with motor disorders in New Zealand (NZCE). 29 children participated in the study. For experimental purposes, skills were coded by trained observers during direct observation of the children at CE/Other programme using a standardised developmental instrument at the beginning of the study and one-year later. Skill scores of the children were grouped on the basis of child characteristics for evaluation purposes. Groups 1 and 2 were children with spastic quadriplegia and severe developmental delay who were not able to sit independently for 3 seconds. Children in Group 3 had quadriplegic cerebral palsy and sensory disabilities and/or epilepsy, as well as severe developmental delay and did not sit independently. Children in Group 4 had a variety of motor disorders, were less delayed and were able to sit independently.

All groups except Group 1 participated in NZCE under the direction of Pető-trained Conductors. Although they had comparable scores at the first assessment, Group 2's raw scores and developmental age scores were significantly superior after 12 months. Gains by Groups 3 and 4 indicated that NZCE might benefit a broader spectrum of children with motor dysfunction than previously considered.

2. Maintenance of Acquired Skills by Children

After Conductive Education

Young children who had attended a CE programme in Dunedin New Zealand and participated in an acquisition study (N=11) were followed-up 2 to 3 years after attendance. Measures taken with a developmental assessment instrument during the original study showed that children had acquired an average of 17 developmental skills to a high performance criteria and a further 11.2 skills to a lower criteria. At follow-up, children were assessed for performance of the same skills in their schools and at home, and parents were interviewed. Of the skill functions originally acquired to a high criterion, 72% were being performed at similar or better levels of function. Skills acquired to a lower criterion were less likely to be maintained. Factors affecting maintenance include intensity of initial CE programme, type of programme during maintenance, child health and life-stress factors, and schooling practices. Implications for transition will be briefly discussed.

3. A Cost-Effectiveness Analysis (CEA) of Conductive Education vs. Alternative Intervention Strategies

The purpose of this study was to begin to address the requests from health and education decision-makers and funding agencies in regards to the cost-effectiveness of Conductive Education and other early intervention programmes. Early intervention programmes may be funded through Education or through Health agencies in New Zealand and in the United States. The presentation will include a discussion of the rationale, method, and results.

This study uses a model of CEA of early

intervention reported to the United States Congress by the US General Accounting Office (Federal Investment in Early Intervention, 1992) which involves identifying key outcomes, identifying alternative strategies for achieving key outcomes, identifying the cost and the effectiveness of each strategy, and comparing the costs on a population basis.

In our study, we first searched the research literature to identify the key outcomes of early intervention for young children with motor disorders, particularly spastic quadriplegia. The priority key outcomes identified from this search in rank order are: (1) family support, (2) nutrition-intake skills (sucking, swallowing, chewing, independent feeding, independent drinking) and (3) coughing and rolling over. These outcomes are of critical importance because they are the primary factors related to quality of life. In regards to the first key outcome, children who are taken into care because their families are not supported to continue in-home care are less likely to have good outcomes as compared with children who live with their families. In regards to the second key outcome, children who are not able to engage in feeding and drinking have poorer health, mortality, and development outcomes than children who gain function in these key areas. The third key outcome relates to the acquisition of function to clear lung, throat and breathing passages of mucus and other obstructions.

The key outcome of nutrition-intake skills was used in the present study because these skills can independently and reliably be measured and because alternative interventions and their costs are identifiable. In addition, in New Zealand, and in

the United States, family support and issues related to the costs to families of children with disabilities has been excluded from CEA to date.

The next step is the identification of strategies of achieving the key outcome. In the present study, the following alternatives have been identified:

a. Educational Approaches

- Conductive Education
- Conventional Programmes

b. Therapy Approaches

(Physicaltherapy/occupational therapy)

c. Assisted feeding

d. Mechanical feeding

Arguments against separating the acquisition of feeding function from orthofunction to provide a CEA of CE will be discussed.

In the third step, the efficacy and costs associated with each alternative will be identified. Data bearing on the key outcome collected during the first study will contribute to the analysis of the Conductive Education alternative. Data from the literature and from public information will be used to identify the efficacy and costs associated with the other alternatives. These will be compared in the final step, and discussed during the presentation.

27. Special Features in the Behaviour and Psychology of Hemiplegic Children with Special Reference to Their Drawing Development

Erzsébet Balogh, Research & Medical Director
Júlia Horváth, Head of Department of CE
 International Pető Institute Budapest Hungary

The commonplace that the first requirement of every rehabilitation process is recognition, is only partly true. The first requirement of rehabilitation is prevention and this is in particular true for congenital hemiplegia although it cannot be implemented easily, as we all know.

In Hungary, a state decree was issued in 1963 making the registration of Cerebral palsy obligatory.

The Pető András State Institute for Conductive Education of the Motor Disabled has been responsible for the registration since.

On the strength of the data we can ascertain that the incidence of cerebral palsy has remained between 0.2 and 0.4% in the last ten years. This means 200 to 400 CP cases in a year in our country.

The commonplace that there is no two disabled persons who would be the same is to an increased degree true for the cases of congenital hemiplegia. The setting up a diagnosis in the early childhood (under 3) is supposed to be very easy. A table about a parental, and medical recognition is shown below

Table 1. Age Setting up diagnosis of hemiplegia

Before	7months	10months	4yrs.
by doctors	17%	35%	90%

The preference of motivated prone position gives freedom to action for genetically determined laterality. The child will be able to choose to use the palsied extremities. In prone position, by elicited reaction asymmetrical loading is performed but always with complex adapted motivation. Making the extremities heavier on the normal side, with to some extent weighted gloves and shoes can arouse

symmetrical sensation and movement. Movement is regarded in this age as a contributor to learning and the conductor will stimulate active exploration of the world through movement. The body scheme requires continual maintenance by constant sampling of the environment.

The cases of congenital hemiplegia often come from a scope of children whose preliminary data do not reveal any difference from the optimal obstetrical and neonatal conditions. This explains partly for the fact that the suspicion of hemiplegia arises sooner in parents, than in physicians. On the other hand it is known that one third of the hemiplegics have acquired their lesions intrauterine.

Handedness may appear too early in hemiplegic infants without any remarkable pathological history not following the normal developmental pattern.

Just to refresh the normal establishment of handedness the data of normal development are given below

Table 2. Onset of handedness in health child

9months of age	few
15months of age	20%
18months of age	45%

Palsy is not necessarily the earliest and most severe sign of hemiplegia. The additional impairments and sensorimotor neglect are of greater significance "Growth (of hemiplegics side) is more retarded in cases with cortical sensory impairment" (Holt, 1959)

Impairments in hemiplegics:

- Palsy of one side
- Growth retardation of affected side

Erzsébet Balogh, Beatrix & Mária Dóka
Gy. Kállay
Zs. Nagy

During the drawing tests to find out how she responds to teaching, her prognosis was not favourable having paresis on the left so the injury being on the right left hemisphere is not perfect at the same time. This can hamper developing to be right handed (due to the paresis the child cannot become left handed). In spite of this drawing develops at an extraordinary rate.

How might conductive education influence that? In early infant age with the relative physical loading of the intact side, putting heavier gloves and shoes on them. Auditory motivation is applied on the paretic side while visual on the intact side without being forced to decide whether the baby has scotoma on the paretic side, or rather neglects it.

The elements of a rhythmic daily routine suppose cognitive, motor, sensory and communication skills. Rhythm is considered to be of great importance not only in exercising but it also means repetition of problem solving. Kinetic experience, together with proprioceptive facilitation are consciously applied. At this age expecting two handedness not only as tasks but age appropriate as well assists the interaction of the cerebral hemisphere through learning, the establishment of new ways and the new division of functions in the hemisphere. Accordingly making certain elements of CE and the programme individual, the symmetric and alternating and the varied application of tasks at a determined order in different positions, help the hemiplegic child to establish a normal way of life.

It is achieved through making the tasks more difficult parallel with day by day encouragement of the paretic side by rhythmic intention but in fact

through the adaptation of the educational means of CE to the given child.

"Brain damage no longer means simply the lack of destroyed tissues for the remainder of the individual's life it also implies responses to change in remaining intact brain, not only in functional but also in structural terms" (Prechtl)

This comparison with other disorders hemiplegia is considered less severe both by professionals and by the society. *However, we should be all aware that our work can not be finished, should be continued for lifelong in cases of hemiplegia.*

28. Introduction of a Conductive Educational-Psychological Test Series

Erzsébet Balogh, Research & Medical Director

Gy. Kállay

Zs.Nagy

International Pető Institute, Budapest, Hungary

Our series of standpoints have been elaborated to follow the development of dysfunctioning cerebral palsied (CP) children. It is exactly measurable and allows for assessing the developmental level of children between 0 and 3 years. Building on many years of conductive education practice, it is used for the complex evaluation and development of dysfunctioning children of low age and with a low level of functions when they are first admitted to the Pető Institute. It measures real conductive educational and psychological performances.

The motor elements of traditional performance tests are inestimable, uninformative and unstandardizable. Our series of evaluation standpoints is a complex test reduced to its elements. It comprises observation in general, observation of spontaneous and intentional manifestations, observation of mother-child interaction and the description of all those. The test tasks of this evaluation method are conductive educational task series, the sequence of which corresponds developmental levels. In the performance tests used in psychology, for the most part only some limited ways of performance are acceptable. Our method adopts numerous ways of successful performance without discrimination. The series of standpoints are utilizable as a coherent one but also selections thereof are suitable for assessing a series of movements or actions. The test series are completed by a conductive education report which assists determine the short term and long term goals of teaching and learning in conductive education and the special areas of individual development in order to achieve orthofunction.

29. Follow-up Control of 532 Discharged Motor Dysfunctional

Erika Bejczy Bányai

International Pető Institute, Budapest, Hungary

The aim of the system of conductive education is the social integration of people with central nervous system injury. The system follows, monitors pupils after their discharge from the Institute. Follow up is, at the same time, the means of self control necessary for achieving practical outcomes. With full knowledge of the circumstances, the conductor's task at the Follow-up Station is to establish an adequate daily routine and have it accepted by the parents and the child.

In the 1997/98 school year 532 children and young adults visited the Follow-up Station (Figure 1). 21 of the children stayed at home with their mother as Hungarian regulations allow a child bearing leave for the parents: 3 years with normal children, 6 or 12 years in more severe cases with a disabled child.

Under the age of 3 social integration is realised in day nurseries. It is very pleasing that most of kindergarten and school age children can be integrated in normal community. 8 pupils stay at home with their families. The severity of their involvement does not allow them to start work. In these cases the aim is to maintain and improve the quality of life.

School progress of the relatively large number (184) of primary school children is shown on Figure 2. The Institute's pupils met age appropriate requirements as shown.

In order to make the educational work more effective the Follow-up Station keeps on live connections with the educational institutions and requests yearly educational evaluation of the children in question. For pupils choosing a career assistance is given to select the appropriate type of

school. All these require up-to-date knowledge of the children's ortho and dysfunctional status. The intention is to obtain all information necessary to select a school adequate to the child's faculties.

Out of the large number of children only 5 of them are private pupils. (Figure 3.) Some of them attend school classes every day and receives verbal feedback regularly but is given marks only at the end of semester exams. Some learn certain hours a week at home in family environment and are taught by a teacher appointed by the local authorities. This is justified by the very severe motor condition or the remote distance from school.

Out of the pupils at the Follow-Up Station in the 1997/98 school year 51 have medium or higher education qualification. 13 have two or three qualifications. (Figure 4.)

With higher education degree : IT mathematician

With vocational secondary school qualification

- economics
- postal communications
- electrical technician

With skilled labourer qualification

- animal caretaker
- gardener
- mechanical technician
- consumable chemist
- tailor
- plastic industry
- shoemaker
- carpet textile industry

Attended courses - information technology

- kitchen gardener

Follow-Up is a comprehensive work with elements

29. Follow-up Control of 532 Discharged Motor Dysfunctional

Erika Bejczy Bányai

Integrating Rehabilitation Based Program

ranging from family education to the knowledge of social issues. The joy of monitoring our achievements also appears during follow-up.

The part of the system of rehabilitative education in the social and personal growth with special needs children is the most important. The educational process is not only a matter of knowledge, but also a matter of attitude and behavior. The educational process is not only a matter of knowledge, but also a matter of attitude and behavior. The educational process is not only a matter of knowledge, but also a matter of attitude and behavior.

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30. Talking Book

A. Benyovszky

Erzsébet Balogh Research & Medical Director
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The multiplicity of the diagnostic judgement is treated in several hand and textbooks. In case of motor dysfunctioning children diagnostic issues and the problems of settlement also pose a bigger problem than in other dysfunctions. Certainly, the problem is given and is bigger as if it could be settled by the Bliss alphabet or by the „classic” method of Alternative Augmentative Communication. The suggested way is to work out personal "Talking Books" for development.

At present the group has 8 athetoid children (between the ages of 4 to 7) with different levels of learning difficulties. Most of them have received conductive education for a few years. The development of their motor skills is different and the emission of sounds have improved with most of them. Major development in their verbal and non-verbal communication could not be achieved.

One of the children (4 yrs.) says monosyllables relatively clearly. Another one clearly indicates "yes" or "no" by grimacing and emitting sounds. Four children pronounce only "no" clearly. Two of them can only cry to express their problems and smile if they are happy. The way to help the children express their emotions and thoughts better was a difficult problem. This is not a purpose in itself but a task, important for cognition as not being understood caused several behavioural problems. The other problem was to judge the level of their comprehension and acquisition of the kindergarten programme. This is why a new, irregular means is under development to help these children to make contacts parallel with mental development and which may also be suitable for refining the diagnosis. Although computer use is a way but this book has a great advantage to the PC,

i.e. it can be taken anytime to anywhere, and the pages can be turned without help in most cases and some pictures are prepared by the children themselves. Emitting sounds is always required when using the book. Another important aspect is that family members, friends etc. are not symbolically but realistically present. The two chapters of the "Talking Book" can be divided into two elements:

One of them includes the expression of their thoughts, feelings and wishes. With the help of the photos of the child's relatives and friends he/she can tell who he/she wants to tell something. There are pictures to show what he/she wants to do or what are his/her feelings. If the child can use these photos adequately, they were replaced by pictograms. There were children who could learn to use the pictograms after two months but some of them needed the photographs for a longer period of time for communication.

Another part relates to the kindergarten programme. These pictures were mostly made by the children themselves during kindergarten classes connected to the subject treated. Beside their joy to see their own works children constantly repeat the material to be learned in new and new situations. This helped the parents of non-speaking children to receive constant information about the topics treated in kindergarten. What to talk about at home? Parents need this kind of help as much as positive help.

The third part of the book is not an original idea. The Peabodi-test for the estimation of non-speaking children's passive vocabulary was reshaped. Obviously, these pictures always refer to and

include knowledge of the kindergarten programme. The Book can be completed by new pictures upon treating a subject. Later on, the use of test sheets with more pictures can appraise children's knowledge of what has been conceived from the kindergarten curriculum.

So far the experiences are surprising, i.e. most of the children like to use their own Book and there is one child to respond only to his family members' photos and only one little girl who does not show any interest in her book.

The attached book is István Cs.'s (D.o.B.: 23/06/91) "Talking Book". All Talking Books" are different to some extent as they are adjusted to the child's faculties. The conductors must be familiar with working out such a method of communication.

Benyovszky & Balogh continued 1.



ME. PISTI



ME



MY SYMBOL



MY SYMBOL: A HAT



DAD



MUM