# Conductive Education - A Glossary

An outcome of a Leonardo partnership project 2010 – 2012, within the European Commission's Lifelong Learning Programme

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This book is written together in the following manner: The main authors wrote proposals for the parts of the book. The other authors have contributed with large or small articles in these parts.

All partners in the consortium have read and made their own comments. We met face to face and read the entire book aloud to each other and discussed every word and expression. Finally, all partners approved the final product.

It has been a true collaboration between Conductive Education services, professional associations and educational coordinators. The labour market and the higher education system (Pető college) has contributed with their professionalism Main authors were:

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Move & Walk

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#### Glossary: Important words:

The András Pető Institute of Conductive Education

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#### Foreword

Impact

To understand our history and to agree on common terminology, is the base to be able to compare and measure quality standards in Conductive Education and even more important in the wider context of habilitation/rehabilitation.

This book is therefore an important document in supporting continuing work to create and exchange quality standards in our professional field and in our VET education.

This work is the outcome of a Leonardo partnership project 2010 – 2012, within the European Commission's Lifelong Learning Programme.

It has been a partnership between Conductive Education services, professional associations and educational coordinators in Austria, Germany, Hungary, and Sweden.

In the project we have learned to talk to each other. Now we hope this book will contribute with a common language / terms, to be used as clarification for professions in the areas of habilitation/rehabilitation, as well as for politicians and other decision-makers in the field of health care, social services and education, both on national and European levels, to understand Conductive Education.

The project has given us the opportunity to meet over the national borders at a European level. These meetings have been very important and have been one of the keys for success. We have met in all partners' countries and looked at each other's organisations, performed workshops and had a lot of fruitful discussions.

We have also reached a consensus regarding the need of a quality system to ensure that Conductive Education will more easily meet the labour market need of skills.

Our idea is that this book can be used as a manual for a basic understanding about Conductive Education for people working in the habilitation/rehabilitation field.

The book consists of:

**Reflection**: Conductive Education and the working field

**Glossary Foreword**: Conductive Education as a concept

**Glossary**: Important words: to understand terms and concepts unique for Conductive Education **History**: History of disabled people and of Conductive Education in the partners' countries.

**Description**: Description of the participating partner organisations

## Founder

The European Commission's Lifelong Learning Programme enables people at all stages of their lives to participate in stimulating learning experiences and helping to develop the education and training sector across Europe. The Lifelong Learning Programme: education and training opportunities for all stages in life.

This project is a partnership in the Leonardo programme in the European Commission's Lifelong Learning Programme.

The Leonardo da Vinci Programme funds practical projects in the field of vocational education and training. Initiatives range from those giving individuals work-related training abroad to large-scale co-operation efforts.

Without the support from The European Commission's Lifelong Learning Programme, Leonardo, this work never could have been done.

Understanding quality from a holistic perspective The main idea when we started working together in this project was to create a quality system specific for Conductive Education. We soon discovered that it is much easier to describe and measure the quality of details, than a whole concept.

The result of the project has not been a complete quality system, but something much better, a book explaining and investigating what distinguishes Conductive Education. We hope it will be used as a framework for understanding and maintaining Conductive Education quality from a holistic perspective.

Conductive Education is an opportunity and an adventure if you look at life every day of your life.

Knowledge is the basis for change and development.

This project is part of the European Commission, life long learning programmes.

As the European Commission believes, the proponents of Conductive Education also believe in the development at all ages. Conductive Education is a life long learning programme in itself.

## **Reflection:**

## Conductive Education and the working field

Conductive Education is a holistic approach, an independent original concept. Initially Conductive Education was developed for cerebral palsy.

Medically cerebral palsy is damage to the motor centre in the cortex. The characteristic patterns of movement, that characterise many cerebral palsies, are symptoms of this injury.

Conductive Education is a multi-disciplinary know-ledge to help neurologically impaired people to a more easy life. The key to successful treatment / training / education through this concept is the holistic overall view.

The conductor (the Conductive Education specialist) is in the middle of the conductive process with special knowledge in a narrow field; the neurological field. The training of the conductor is a holistic education specialised on neurological impairment from many academic fields.

Historically conductors always work in a homogenous team with only conductors together.

Conductive Education has for a long time been relatively unknown in the habilitation/rehabilitation field in Europe. Although the concept was created in Hungary in the middle of the 20th century.

The dominant way to help and treat neurological impairment in most parts of Europe is through a multi-

disciplinary team, hereafter referred to as habilitation.1

The members of the habilitation team are specialists in their academic field, for many diagnosis groups, not only for the neurologically disabled. Many specialists work in the team together around the child or the adult.

In some countries habilitation has adapted Conductive Education and the conductor works together with other specialists in multi-, inter- or trans- disciplinary teams.

However habilitation doesn't work from any special method or academic theory. They mix many theories. Each specialist can choose the method or the approach they think is best, for the person they are working with. Usually even the theories are mixed from different methods in the same working session.

This way of mixing theories and methods based on the circumstances is called: an eclectic approach.

Specific theories and methods

It was long believed that the brain only developed until a child was 1.5 years old. Subsequently, it was said, that the brain was fully mature and developed, no new brain cells were created thereafter. (These theories are

<sup>1</sup> Forms of team work (R. Drechsler)

Multi-disciplinary team: different professionals are working with a person (often one specialist at a time), objectives concerning the field of the respective specialist discipline.

Inter-disciplinary team: cooperation of the different professionals, who agree on common objectives and take into consideration information of other specialists.

Trans-disciplinary team: professionals are working together (often at the same time), contribute their own knowledge and undertake tasks of other disciplines; objectives are discussed and agreed on, evolvement of the person and his/her environment.

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now considered out of date by modern neurological research.)

In this old medical context, in the middle of the last century, many methods, theories and concepts were developed in order to try to help or give relief to people with neurological impairments.

Below are listed methods, which originated from different academic fields and have different views on what is the main problem, for people with neurological impairments.

Listed below are some examples of theories: (not listed in any order).

**Proprioceptive Neuromuscular Facilitation (PNF):** Summary; complex exercises, often a combination of passive stretching and isometrics contractions.<sup>2</sup>

<sup>2</sup> Herman Kabat neurotoxicity physiologist, Margaret Knott physiotherapist and Dorothy Voss physiotherapist, worked out a method at the end of 1940's which utilized the proprioceptive reflexes to stimulate nerve-muscle operation.

Their method is based on complex exercises, where the converse innervation should be changed to promote a better interaction. Their purpose was to achieve muscular operation by extensive reflexes, i.e. through a peripheral influence. **Rood's method:** Summary; Stretch, tapping, resistance, vibration, traction, approximation, inhibitory tendon pressure, fast brushing, light touch, neutral warmth and slow stroking are all examples of these techniques (Metcalfe & Lawes, 1998).<sup>3</sup>

**Bobath's method (Neurodevelopmental Treatment (NDT))**: Summary; gradually get rid of the dominance complex and pathological, primitive and postural reflexes and promote, through practice, the primary stato-kinetic balancing reflexes.<sup>4</sup>

<sup>3</sup> Developed by Margaret Rood occupational therapist, in 1950s also approached neurological caused motor-disorder problem, from the muscles point of view (i.e. periphery). Correspondingly converse innervation is activated by the inhibition of antagonist muscles, local pressure, cooling, and painting the skin. Rood applied specific stimuli like painting the skin, pressing the muscles, articular compression and chilling with ice. before treatment can begin, the therapist must apply facilitation and inhibition techniques to help normalize muscle tone.

<sup>4</sup> Developed during the 1940s by the husband psychiatrist/neurophysiologist Karel and wife Berta Bobath physiotherapist, who were trying to restore normal movement to children with cerebral palsy, especially to those with hemiplegia. The primary purpose is the relaxation of muscles, in various body postures like crawling and climbing, sitting etc. are implemented with the help of suitable equipment for example a large ball. **The Doman Delacato method**: Summary; the aim is to have the primary motor regulatory functions (brainstem and then gradually the later ones) practiced in order that unaffected areas of the brain will take over the functions of those being damaged as a result of executing increasingly difficult motor tasks.<sup>5</sup>

**The Vojta method**: Summary; applying the afferentation of the stimulus (innervation of the peripheral nerve) by simultaneously and continuously stimulating the skin and the muscle receptors (from the lower proprioceptive layers).<sup>6</sup>

**Sensorimotor Integration Therapy (SIT)**: Summary; That neural organisation on the subcortical level is the precondition of development. The therapy therefore aims to stimulate all the senses.<sup>7</sup>

<sup>5</sup> Developed in the late 1950s by Glenn Doman physical therapist, together with Carl Delacato educational psychologist. The theory: phylogenetically later motor regulatory functions of the brain are damaged and the primary functions from the inhibition causes the dysfunctions.

<sup>6</sup> Developed by Vaclàv Vojta, neurologist in 1960s. The therapist mildly presses down the fingers at the same time he/she inhibits the contralateral component of movement artificially, with a strong pressure. Thus local movement of the homolateral side can be implemented freely (shoulder lifting, flexion the arms, hips and lower limbs).

<sup>7</sup> A child centered method developed by occupational therapist/psychologist Anna Jean Ayres (1920-1989). The theory: along with difficulties in movements and coordination, children with neurological impairments (sensory integration dysfunction) also experience problems with their sense of touch, smell, hearing, taste and/or sight. **The developmental neurological habilitation method**: Summary; systematic early rehabilitation training following early diagnosis, which can be applied up the fifth post-natal month.<sup>8</sup>

**In addition**, many surgical and medical interventions are used to relieve bodily symptoms as well as alternative methods such as massage (oriental methods) the stimulation of the muscle electrically, and acupuncture.

## Conclusion specific theories

All the above listed interventions and theories are specialised. They are designed to remedy or alleviate specific problems; symptoms.

Neurological impairments never consist of a single specific problem. Neurological impairments always cause many problems/ symptoms. If one problem is alleviated, many other symptoms often remain, or may even get worse, because of the one treated.

An example; the purpose with surgery may be to reduce muscle tone, but the operation affects also the mental and social development, which may slow down during the convalesce.

In surgerical intervention there are no theories on how to deal with the side effects of the surgery, because surgery is one specific intervention.

<sup>8</sup> Developed by physician Ferenc Katona from 1960s. He realized that educational activity, has positively influenced early recognition and the outcome of infantile brain damage and has proved that improvement can be achieved despite severe hypoxic brain damage.

This may be one reason why some of the above listed theories are criticised from proponents of other theories or academic fields.

The partners in this project take no opinion on whether the listed theories above are good or bad, whether they should be used or avoided. We only note that these theories are developed and used for the same target audience as Conductive Education is designed for. Therefore they belong to our working field and we have to relate to them.

#### Holistic theory

In contrast to the specific theory or intervention stands the holistic theory. The holistic approach is based on the development of the individual's entire life. The side effects are equally important to consider, as well as the main problem.

Conductive Education is a holistic concept. That means; the goal is to develop all sides of the neurologically impaired person to become as independent and mature as possible.

The holistic overall view is not so common in the west. A key objective of this book is therefore to create a holistic understanding of Conductive Education, and not to simplify the parts.

#### No proven cure

It is not possible to cure neurological impairment; that is fact. The help and services available are based on relief and support.

As we have seen theories about how this is being done are numerous. However, from a scientific perspective, no treatment is evidence based or superior to the others.

How the neurologically impaired are treated depends on the traditions in the country. No scientific evidence is present to prove the best way.

There may be two reasons why the treatments that exist, do not work one hundred per cent.

1. The real main cause of neurological impairment has not yet been found.

2. Neurological impairment is a complex syndrome which affects other aspects of the person beyond the musculoskeletal system and therefore requires treatment in many areas.

The only theory which distinguishes itself, in almost all reports, is Conductive Education, but not in a medical scientific way, but in a sociological way.

In almost all reports in the reference list, it is shown that if the neurologically impaired or her/his relatives may choose treatment, they choose Conductive Education.

# Conductive Education

András Pető found that cerebral palsy was a complex syndrome and developed Conductive Education; an education based on knowledge from many scientific faculties and directions. Pető didn't see cerebral palsy primarily as a medical problem or a social problem, but as a learning disorder. He assumed that the person with cerebral palsy had a problem in learning normal movements and that affected the whole personality.

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In the first half of the last century there were many pedagogical concepts being developed, one of them was cognitive learning.<sup>9</sup>

Since Conductive Education is a multidisciplinary concept, there are many different parts of the concept, which several types of professional groups believe belong to their area of expertise.

What is most important and most effective in Conductive Education therefore is interpreted differently, depending on what education and experience the professional previously has.

<sup>9</sup> It is assumed Andreas Pető was familiar with the concept of cognitive learning and the work Tolman (1886-1959). Tolman promoted the cognitive aspect of learning as a contrast to learning as a reflex activity, in response to the stimulus. According to Tolman, the first step to obtain motor skills is to make an "internal image" connected to the motion.

The idea of cognitive learning can also be found work of Lashley (1890-1957). He proved that the action was not a series of reflexes learned by adding the motor elements, but the result of learning the whole "project".

In 1960 Pribram showed that the central nervous system does not react to information, but to its "inner code" which can be formed by experience. In his opinion the interpretation of the feedback through active exercises "self management" can also be learned.

Pribram's theory has influenced the work of both Pető and Feldenkreis. Pető must have also known Feldenkreis theory (Moshe Feldenkreis 1904-1984) who argued that learning is not only through practice but also through awareness of experience.

Footnote 2 - 9, reference: Dr Erika Medveczky: Conductive Education as an educational method of neurorehabilitation (2006). ISBN963 229 819 5 pp.10-15. Below are some examples of what can be seen as most important, according to the interpreter's vocational education:

If you ask someone with a neurological medical education, what makes Conductive Education effective, s/he probably says:

> Repetition and stimulation of the reward system - this means that new pathways can be developed in the brain

If you ask a physical therapist, what makes Conductive Education effective, s/he probably says:

The intensity - if you repeat something often enough you become stronger and more skillful

If you ask a sociologist, what makes Conductive Education effective, s/he probably says:

 Dynamics of the group, by working in groups the individuals teach each other

If you ask a psychologist specialising in child development, what makes Conductive Education effective, s/he probably says:

 To be seen and judged for what you can learn, the fact that the conductor sees the child's potential to develop, stimulates success

If you ask a psychotherapist, what makes Conductive Education effective, s/he probably says:

 Getting to know their limitations and understand their ability to influence and change their situation

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If you ask a teacher, what makes Conductive Education effective, s/he probably says:

Learning is based from the individual level, where the pupil is active, aware and involved in the learning process

If you ask someone with a sports medical education, what makes Conductive Education effective, s/he probably says:

The complex programme, where the movements are trained and developed from those simple movements to complicated movements, at each training session

If you ask a music therapist, what makes Conductive Education effective, s/he would probably answer:

The rhythmical intention allows better movement patterns to be developed

If you ask a movement analyst, what makes Conductive Education effective, s/he would probably answer:

Conductors ability to correct irregular movements allows a better motion patterns to be developed

All of the above descriptions provide examples of effective elements in Conductive Education. For a trained conductor, no one of these parts is more important than the other. All parts are equally important, because they simultaneously interact and affect the person from many aspects.

Eclectic Approach - Holistic approach As we already stated the dominant way to help and treat neurological disability in most parts of Europe is the habilitation team with the eclectic approach. Concrete: this means that most of the specialists as enumerated above, create a multidisciplinary team around the neurologically impaired person, using the specific methods or approaches they think is best for the person they are currently working with.

The conductor, on the other hand, has the whole Conductive Educational holistic approach as a toolbox in order to focus teaching on the persons specific problem and to simultaneously develop the side effects.

The holistic approach and the eclectic approach are difficult to reconcile.

The holistic approach is based on an approach to the individual's entire life, where the purpose of the whole concept fails if one or more parts are lifted away.

The eclectic approach is based on the fact that the parts are important. It is the parts that are possible to influence. Within the eclectic approach the individual's entire life is not a goal in itself, but may be affected by the parts.

The Swedish state has an official institute for scientific evaluation of methods and concepts, which assures what can be used for treatment and healthcare in Sweden. Their name is: SBU; the National board for medical evaluation.

SBU makes the following assessment about Conductive Education and states:

"In principle, many elements, parts, in Conductive Education can be incorporated into mainstream multidisciplinary treatment, which already applies to many habilitation programs already today. However, the introduction of the whole concept would result in complications for the current habilitation organisation." This is one of the reasons for why few habilitation centres have embraced the entire concept of Conductive Education. They do not want to change their eclectic approach, as it would require both organisational and personnel changes.

Those neurologically impaired people choosing Conductive Education are also always in need of parts of the habilitation centres' help. The neurologically impaired people within habilitation, may benefit from Conductive Education as a supplementary input.

For the neurologically impaired it is therefore only an advantage if both options are available.

A Swedish doctoral thesis, from 2009, shows that the target group finds it essential and desirable that the understanding between habilitation staff and Conductive Education staff increases. The wish is that this book will contribute to this.

## Glossary: Introduction The Conductive Education as a concept

Physician and educator Dr. András Pető (1893-1967) created the system of Conductive Education in Hungary in the 1950s. He exceeded his peers by becoming the first person who did not consider a physical disability brought on by the central nervous system's injury a mere medical case, but a pedagogic and educational challenge. He viewed physical disability as a cerebral coordination disorder which could be influenced by learning. The essence of his methodology is a holistic approach based on complex personality development; its aim and at the same time, its instrument is active learning built on intention and motivation, resulting in the overall development of the person with central nervous system disorder (CNSD). His assumption was that disabilities can also be understood as complex learning difficulties. This means that even individuals with severe disabilities can acquire competencies in certain activities under optimal learning conditions.

Dr. András Pető's theory of the time, according to which the medical problem must be solved with pedagogy-based active learning, has since been proven. The brain's neuroplasticity ensures the replacement of the loss of function in the injured nerve areas and the rearrangement of synaptic connections. The goal of Conductive Education is to create the intention resulting in a positive change, to mobilise the inner motivations of the child or adult and to achieve the overall development through active learning with its extensive arsenal of facilitative instruments. Today, its fundamental principles are recognised worldwide and have recently been validated in studies in the way humans learn by the following sciences: Medicine, Psychology, Pedagogy, Sports sciences, Sociology etc.

As child-neurologists say: Conductive Education as any other developmental process, or (non-medicinal) therapy is not a treatment

(a), it does not cure

(b), it does not alter most of the symptoms

(c), it does not have a durable anti-spastic or anti-rigor effect

(d), it is not able to eliminate the pathological signs of pyramidal damage.

Irrespective of all the above facts Conductive Education is highly effective in achieving activity and participation of the person with CNSD.

We have created this Glossary to describe Conductive Education as a complex human science in order to understand, and to use a common language in the field of Conductive Education. Here we try to consistently highlight the importance of keeping together almost all of the components of Conductive Education. In this Glossary several words are explained. We provide a brief definition of the terms which we regard as essential. For the most part, this glossary has been conceived by the lecturers of the Conductive Education Institute of MPANNI and endorsed by the "Leonardo international team". At the end of this glossary you will find references to the related professional literature.

The concepts of Conductive Education are in close interrelation and interaction with each other also as set and subset. The terms and concepts are listed in alphabetical order.

#### The Pető concept

The essence of Pető's method is that he regarded problems in a different way and thus changed the cooperation between the pedagogue, the conductor and the individual with motor disorder in the process of teaching and learning. Pető considered it vitally important that a child with cerebral palsy should also become an independent, creative and active person within a social group. It was he, who related the idea of active learning, by focusing on the whole personality.

Pető's idea was that people with disintegrated functions (dysfunctions) and uncoordinated general movements can be developed, and coordinated functions can be realised by an indirect cognitive route.

The main aim of Conductive Education is to create achievable goals and to promote communication, intent, emotional and cognitive development through active behaviour and coordinated movements. Methods adopted by the complex conductive programme include the holistic approach, constant operative observation, facilitation as a system of instruments, the group setting, an active daily routine implemented in the group, rhythmical intention and task performance based on motivation. The principles of conductive pedagogy include the principles of other human sciences (pedagogy, psychology, sociology, medicine - neurology) such as recognition of human values, pedagogical optimism and value, tolerance and empathy, integrity etc.

As a special human science, conductive pedagogy added its own specific principles. Those principles include among others the following: the person is an entirety, education is directed at the entire personality, the necessity of action and intention, the development of active learning etc.

Conductive Education is a developing discipline which has taken up its place in all areas of pedagogy and rehabilitation and strives to get its identity accepted. We trust that this publication will help professionals working and researching in all fields of medical, social and pedagogical rehabilitation in interpreting the same concepts in the same way and thus create further harmony in Conductive Education, irrespective of cultural and social differences. Conductive Education is characterised by its integrated educational and rehabilitative nature, where pedagogical and rehabilitation aims never appear apart, separated from each other, but side by side or one after the other.

Another goal of this glossary is to generate a debate amongst professionals in order to develop an interpretation, according to identical criteria, of the common 'glossary' or 'vocabulary' in collaboration with the related professions. A few basic definitions will be given and other perspectives and extremes presented. This is already an essential element for mutual understanding and for making Conductive Education teachable. Evidence based observations and measurements are gradually becoming obligatory in Conductive Education also, and multinational (multicentral) cooperation will only be successful if a common language and identical interpretations are applied both in terms of adherence to the principles and pursuance of practice (facilitation) as appropriate for the principles.

These days, due to the information explosion, the knowledge we attain at school becomes outdated incredibly quickly, some people think that in every 3-5

years it is obsolete or at least needs considerable revision. The development of related disciplines and the findings of research into the conditions and methods of successful learning and the expansion of our experience-based knowledge promote the development of the methodology of Conductive Education and encourage continuous self-improvement. The improvement of our conductive pedagogical culture and applied methods would be unthinkable if the theoretical grounds, by now in need of amplification, were not systematised and supplemented by evidence-based knowledge. Experts are encouraged to review, increase and systematise their knowledge and thus those interested in the theory of conductive pedagogy as well as professionals practising it feel prompted to do the same.

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# Glossary Important words:

To understand terms and concepts unique for Conductive Education

## ACTIVITY

Definition: In pedagogical terms activity means a rational, purposive behaviour which manifests itself also in actions and activities.

Conductive Education is aimed to evoke the missing or lost physical, cognitive, communicational, emotional, social activity via complex educational process in the person with central nervous system's disorder (CNSD) by producing appropriate motives and ensuring the opportunity of successful action. The child's activity demands mobilisation of their whole personality. During the conductive programme many conductive reinforcements are given which encourage problem-solving originality and contribute to the child's independence. Cognitive operations are modified by proper experiences originating from active learning and the intention of a new, similar action will be built already on this internal image. This internal image is a condition of appropriate coordination. If action develops that way, the individual will be able to apply it in various functions and situations and the internal image which has come into existence will automatically serve as a pattern in every activity which can be adopted in everyday life.

### ADAPTATION

Definition: Adaptation refers to both the current state of being adapted and to the dynamic evolutionary process that leads to the adaptation. Organisms face a succession of environmental challenges as they grow and develop and are equipped with an adaptive plasticity as the phenotype of traits develop in response to the imposed conditions. Therefore any given trait is essential to the concept of adaptation as it affords a kind of biological insurance or resilience to varying environments.

In pedagogical terms (and hereinafter definitions will be used in that sense) adaptation penetrates all scopes of conductive education and takes place in the learning/ application area. (See more under Daily routine, Task series, Complex programme.)

CEREBRAL PALSY – CP/Central nervous system's disorder - CNSD

Definition: Cerebral palsy is a lifelong condition originating from pre-, peri- or postnatal damage to the central nervous system. The concept exists in several divisions; according to Pető (1962) the first description in the specialist literature appeared in William John Little's (1810-1894) monograph. The term was first used by William Osler in 1889 ("The Cerebral Palsies"). Later on Sigmund Freud wrote a monograph on hemiplegia (1891), then in 1893 and 1897 published a work on infantile cerebral palsy ("Die Infantile Cerebrallähmung"). In the international technical literature later on Phelps's, afterwards Tardieu's division was applied, then the one by Hagberg; but we should not forget to mention Crothers and Paine's work either (The Natural History of Cerebral Palsy).

Primary and secondary symptoms were described in detail by several authors, however all shared the opinion that educational processes and the rhythm of therapeutic procedures are influenced by secondary or negative symptoms. (Balogh – Kozma, 1994)

In cerebral palsy the motor disability is dominant: muscle tone, posture and motor coordination are always affected. A further characteristic is the impairment of cognitive, communication, emotional and social development. It is non-progressive, however the symptoms may worsen with ageing.

By describing cerebral palsy as a learning disorder, the goal of Conductive Education becomes to give neurologically challenged people the opportunity to learn how to live a life as rich as possible by using their capacities.

### CLIENTELE

(For the entirety of symptom complexes that fall under the sphere of operation, see Conductive Education).

Although the tendencies of occurrence vary, European tendencies indicate the incidence of damage to the central nervous system to be about 0.2-0.4. The tendency varies also concerning the cases where Conductive Education is successful and whether there are causes precluding its application.

Before recommending Conductive Education for development an assessment, led by a conductor is required. After the assessment the conductor will decide whether Conductive Education will be beneficial or not. Conductive Education service: can be applied for children who show signs of:

- · significant motor developmental delay,
- pathological motor development of posture,
- dissociation of the motor and mental conditions to the advantage of the latter;
- to all children with dystonic/dyskinetic CP at every age, even in adolescence or young adulthood
- to children with known, slowly progressing primary diseases (heredodegenerative diseases)
- showing disturbance of coordination,
- dystonic/dyskinetic symptoms at an early age if the child is able to enter into cognitive contact and the vision is not impaired.
- · sensorimotor developmental delay
- ASD autistic spectrum disorder with motor impairment

Conductive Education is successful for people with Infantile Cerebral Palsy (ICP), Multiple learning disorder (MLD), Profound/multiple learning disability (PMLD), Severe learning disorder (SLD), Spina Bifida, Muscular hypotonia syndrome, Ataxia, After-effects of head injuries, acquired brain disorders like after apoplectic fits with hemiplegia, Parkinson's, Multiple Sclerosis, stroke, brain injury – collaboration of medical treatment. Conductive Education might not be effective for the development of children with profound mental deficiency, and severe health conditions.

## COMPLEXITY

Definition: In general usage, complexity tends to be used to characterise something with many parts in intricate arrangement.

Conductive Education and therapeutic point of view: taking into account the human as a whole. The person with disability is seen in his/her entirety, from cognitive, psychic and somatic aspects; the programme, the daily routine and the age-specific teaching programmes are also holistic and comprehensive. (See more under Conductive Education, Daily routine)

# COMPLEX PROGRAMME

Definition: In the field of Conductive Education the programme means all the necessary knowledge which is needed for orthofunction and further participation.

The complex conductive programme is the embodiment and the intellectual product of the conductive pedagogical approach and philosophy. A consciously planned and implemented pedagogical developmental process aimed at the manifold development of the person whose motor disability originates from damage to the central nervous system. In the following circumstances the complex programme is able to fulfil its function effectively on Pető's principles when:

- the primary aim of Conductive Education is the complex development of the personality
- Conductive Education is characterised by its educational nature
- Conductive Education work is aimed at developing coordinated general function with algorithmically constructed educational programme
- the Conductive Education programme is not symptom or lesion centred but focused on the personality
- the integrated programme is longitudinal and spiral in structure
- the process of Conductive Education is carefully chosen for the individual and is carried out in a conductive group
- it is applied to a carefully assessed, selected and assembled group of people
- it is applied by a homogeneous team of qualified conductors or in a transdisciplinary team led by a conductor, where they work in the spirit of Conductive Education with appropriate professional responsibility.

Complexity affects every area of development, activities and learning. A Holistic approach influences each and every area of personality development.

(See more under Conductive Education, Daily routine, Task series)
CONDUCTION:

Definition: 'Conducere' – Latin word meaning 'leading to', conduction is active pedagogical work in the habilitation and rehabilitation system aiming at the person with CNSD to reach an independent condition and life. It means catalysing and consciously leading the pupil's problem solving; an indirect activity constituting an integral part of the child's action.

Conduction is a specific method of developing the whole personality by promoting inner intention and motivation by increasing interest in the surroundings. Conduction is creating controlled coordination that prefers, influences, focuses, and affects an indirect approach to direct, active intervention. Conduction indirectly constructs functions by directly assisting the children and adults in achieving problem solving by active learning in reaching their goals.

# CONDUCTIVE EDUCATION

The aim of the conductive education process: individual activity plan for the person – a strategy – development of independent life which is the resource of self evaluation of the person with dysfunctions.

The long-term primary aim of conductive education is appropriate integration of the person with motor disability into the community.

(See more at page 19-23)

#### CONDUCTOR

The conductor is an interdisciplinary expert with general pedagogical, neurophysiological and Conductive Educational knowledge. Conductors accomplish their work acquiring and applying the competencies specified in the training requirements.

The training of the Conductive Educational specialists, from the beginning in 1963 has included integrated contents: pedagogical, psychological, developmental psychological, subject pedagogical, and adapted medical biological studies. Not with standing changes that may have occurred since, in respect of competencies this principle has been maintained in the training. Conductive Educational in different countries therefore is dependent upon not only the quality and knowledge of professionals who are implementing it, but firstly on the level, adequacy and guality of the theoretical and practical training of these professionals. Our intention is to keep the best conductor-teacher traditions in focus, we are moving towards improving the Conductive Educational process and services, including new theoretical and practical innovations, trends in the studies and in the structure of curriculum delivery.

The conductor is a pedagogue, an educator. Conductors provide comprehensive personality development to habilitate/rehabilitate people with motor disability originating from damage to the central nervous system and by using the pedagogical instruments at their command, conductors are able to apply the principles of Conductive Education in order to realise the complex programme.

The conductor is planning, organising, evaluating and

implementing the comprehensive complex programme. The conductor is a (re)habilitation and integration professional trained in a multitude of disciplines to influence, in a complex and target-oriented approach, the personalities of individuals of all ages suffering from damage to the central nervous system and / or with learning disabilities. The conductor constantly safeguards the inseparable unity of education and therapy in the (re)habilitation and integration process.

The conductor continues to be a specialist with multidisciplinary training and a focus on pedagogy, medical therapy and nursing for the purpose of working as an educator and therapist in inclusive groups. They recognise the primary needs of every individual and the required psycho-physical resources along with the individual's social environment. This forms the basis for the conduction plan they then design and carry out as a case manager in the respective environment and use to provide support in respect of all legal and financial issues.

### COORDINATION

Definition: Coordination is the act of coordinating, making different people or things work together for a goal or effect to fulfil desired goals in an organisation.

In order to change the dysfunction of the nervous system opportunities are provided by functional re-organisation, flexibility and plasticity as a basis. First we have to offer goals which the individuals with dysfunctions are ready to understand and accept as their own. The reaching of reorganisation is not a technique, it is not the result of applying a system. The reorganisation materialises during the course of education habilitation, rehabilitation training. The disorganisation must not be considered a dysfunction, but as a lack of experience, lack of knowledge. Thus it is not a disease, therefore it cannot be cured. Only by way of learning and relearning can re-organisation be materialised. One can only, within the complex learning process, facilitate conscious self-control by selecting the proper goals, and providing support for reaching those goals. (See more under Orthofunction and Learning process)

## DAILY ROUTINE

Definition: The frame of the complex programme in conductive education. The daily routine is on the one hand a pedagogical tool and on the other hand an educational achievement.

The daily routine provides a time frame and an opportunity for necessary and planned age appropriate activities. The elements of the programme are built one upon the other and complement each other. The daily routine comprises any task series, the development of self care, the pre-school programme, the school curriculum and age appropriate comprehensive cognitive development (e.g.: free time activities such as hobbies, sport and work). (See more under Task series).

At the same time it determines the sequence of certain programmes, and as a result an active and rhythmic way of life is formed.

There are sessions and activities which are repeated,

while their content deepens, changes in a linear way and their execution in a concentric fashion. It makes the basic rules of behaviour and activity understandable and natural for children.

#### DIFFERENTIATION

Definition: the process of finding a derivative, inductive reasoning aptitude.

When the tasks are defined, the children's expected pace of progress is taken into account while individual solutions, opportunities of differentiation and the variegated system of facilitation tools including the different forms of rhythmical intention are shaped. It means special planning of the Conductive Education process as these children accomplish special tasks differently and parallel according to their individual needs subject to actual condition, diagnosis and age. The task comprises the setting of a goal for the individual with dysfunction without specifying the method which the individual will develop for him/herself with the special individualised support, called facilitation, of the conductor. The conductor directs active trials and makes the individual aware of which solutions are appropriate so that they can achieve the set goal. Movement is a sensory-motor i.e. motor and perception process which has to be not only performed but also perceived. (See more under Goal setting and Facilitation)

## DYSFUNCTION

Definition: Dysfunction is the disintegration of functions – as disturbances in adaptability.

Pető claimed that dysfunction was a change in coordination which had to be separated from other abnormalities. He thought that abnormal functioning was not static or local; but rather it had an impact on the child's whole personality as well as its components. According to Pető, the child's dysfunctioning is not a form of movement that s/he is incapable to adapt but the result of a disturbed learning and adaptation process. The disturbance means that during meeting a requirement the child remains without motivation to continue the problem solving process.

# EQUIPMENT

Definition: the set of articles or physical resources serving to equip a person or thing; the implements used in an operation or activity (according to the Webster dictionary).

Characteristics of special aids applied in conductive education: They are appropriate if used temporarily and not as a constant substitution. The use of special aids is always subordinated to pedagogical aims. While designing and applying them, conductors take stages and individual needs into consideration. The purpose is not to substitute movement but to make activities easier. As Conductive Education started to spread in Europe, the so-called Pető boots as well as the plinths and other types of furniture became known. Since then, a wide range of special aids have been implemented in Conductive Education, however the principle of employing them is that it should be provisional and show a decreasing tendency.

# FACILITATION

Definition: facilitation is the necessary help given to the person making the correct implementation of the intention possible. "In the Conductive Education system facilitation includes all the factors of the educational process which promote the orthomotoric ways of solution and the formation of the orthofunctional personality." (Hári 1991)

In physiology, facilitation means that the particular stimuli favourably impact i.e. enhance the effect of each other. The term facilitation is broadly used to describe any activity which makes tasks for others easy or "make it easier". Conductive Education uses facilitation in a broader and much more differentiated sense, both in the practice and in the technical literature. In Conductive Education the term has a pedagogical rather than physiological meaning. Parallel with the dissemination of Conductive Education concerning the interpretation and implementation of facilitation mutations started to emerge and individual adaptations appeared, often missing the original objective and sense. The preferred facilitation is the system of the whole educational programme, with its multidisciplinary actions. This programme includes emotional, social, perceptual, cognitive, academic, communication elements with simultaneous

interconnections. All factors of development are connected and interrelated. The disabled people are not passive recipients of stimuli; facilitation is given by the target itself which becomes the goal of the individual. The child's current knowledge and skills can connect with new experiences and new opportunities for acting guidance and help of others.

Assistance can rely on people or equipment. It can be direct or indirect. Assistance can be educational, neurophysiological, mechanical or manual. The importance of dynamic interpersonal contact is acknowledged in Conductive Education as the fundamental basis of the child's development.

Forms used in conductive education: pedagogical, social, neurophysiological, situational, mechanical, instrumental, manual.

# GOAL SETTING

Goal setting involves establishing specific, measurable, achievable, realistic and time-targeted group and individual aims. Work on the theory of goal-setting suggests that it is an effective tool for making progress by ensuring that participants in a group with a common goal are clearly aware of what is expected from them.

On a personal level, setting goals helps people work towards their own objectives—most commonly with financial or career-based goals. Goal setting features as a major component of literature: "Goal setting capitalizes on the human brain's amazing powers: Our brains are problem-solving, goal-achieving machines. In Conductive Education, formulating a goal, i.e. recognising the problem and setting priorities falls within the conductor's competence. Pupils must be involved and construct their own activity. (We have to arouse and maintain positive motives for learning and support their internalisation)

The ultimate, attractive and important aim of the action and its implementation must be anticipated (one has to imagine and plan what and how). The human characteristics of learning and creative form of learning is vital as it reflects our human nature.

Psychologists, physiologists, even the morphologists consider the anticipation as objectively alive. We consider its formation and learning the key question of effective attitude. The basis of action is cognitive and where cognitive function is dysfunctional, we are really concerned about learning the formation of goals. (See more under Motivation, Intention, Adaptation and Observation.)

## GROUP

Definition: Social group is with human characteristics coherent, with common goals and intention.

Working in a group is one of the fundamental characteristics of conductive education regardless of the severity of the dysfunction. For the children with motor disabilities the group provides a system of activities and interpersonal relationships, which enables them to develop and later on to integrate into society. Intercommunication between members of the group has a motivating impact, intensifying the effects, which stimulate activity. Individual goal achievement is supported by the group's common activities and goals.

The dynamic composition of the group, its constitution and quality influence the success of conductive education significantly. Age, diagnosis and severity are determinant for the composition of the groups. In order to transform dysfunction into orthofunction conduction relies on the mediation of the individual's personality to be effective. The group has a socialising effect on the individual, it has a motivating force, therefore certain goals are achieved more readily in the group situation and newly acquired skills are far more likely to be retained and generalised. (See more under Conductive Education, Motivation and Goal setting)

# HOLISTIC APPROACH

The holistic approach means that the individual is seen as integral in all areas of life – in their functions, individual development and social relations – in multi-level, mutual interaction, cohesion and interdependence with everything and everybody. According to Pető's concept this particular interpretation of the "whole" is the one that serves the benefit of people with CNSD.

# INTEGRATION, INCLUSION

Definition: Inclusion is the process whereby every person (irrespective of age, disability, gender, religion, sexual preference or nationality) who wishes to, can access and participate fully in all aspects of an activity

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or service in the same way as any other member of the community.

Inclusion requires time, space, effort and resources but it creates a society which is fairer, more cohesive and richer.

The integrated education of children with disabilities and their non-disabled peers in inclusive settings, which seemed revolutionary in the early days of Conductive Education, has now become reality, in spite of differences in the opinions of theorists and practitioners on segregated and integrated education.

This trend will surely have an impact on Conductive Education and its development in the future.

Conductive Education in all forms of educational systems is not an either-or question. It should always be part of mainstream education, that dictates appropriate education for students with dysfunctions and should provide the necessary staff; conductors are well trained to be members of the staff.

The final goal of Conductive Education has always been integration and inclusion.

To understand the Conductive Educational meaning of inclusion we give the following interpretation of related sociological terms:

**Exclusion**, put out one or more persons from the main group.

**Separation**, put one or more persons to a side group outside the main group.

**Integration**, let the the side group exist within the main group, but without the side group participations in the main group activities. **Inclusion**, all individuals are equal and are involved in shaping the group.

#### INTENTION

Definition: intention is an agent's specific purpose in performing an action or series of actions, the end or goal that is aimed at. Outcomes that are unanticipated or unforeseen are known as unintended consequences. Intentional behaviour can also be just thoughtful and deliberate goal-directedness. Recent research in experimental philosophy has shown that other factors may also matter for whether or not an action is counted as intentional.

The meaning of intention is general readiness for organising a certain activity. An internal preliminary formation which starts coordination or dysfunction, a special human formation, human activity.

Parallel with the energy and effort of volition an internal rhythm emerges which is the internal image, the scheme of action and which becomes more general the more automatic the action has become. The external signs of intention are apparent in the intonation, gestures and facial expression. The entire organisation that produces or terminates a movement and suppresses superfluous movement must be linked to intention. This organisation is an important positive factor of action without becoming conscious. Intention and its implementation form a unity which we want to teach. It is always an inseparable compound. The components of intention are dynamism, volitional energy, effort and internal rhythm. Intellectual, emotional and volitional activity, do not necessarily manifest externally. However, manifestations might include sounds, facial expression, gestures and attitudes. The intention forms an inner picture, its reorganisation means that the reorganisation of intention has taken place. This will be successful if the organisation of intention takes place in an orthofunctional manner.— One executes the motions so the inner pictures can correspond with them, that is the intention and the accomplished fact corresponds.

The system intention/action/control is similar to a regulating circle. This time the nerve system itself builds up the best way for solving the requested task the whole organisation executes the task in a mobilised manner. According to the character of dysfunctions, by giving the goals and also the point of support bases, we strive for the proper solutions. (See more under Plasticity),

# LEARNING PROCESS

The way of learning in the case of CNSD people: Anticipation - abnormal sensory feedback - abnormal internal model - abnormal body image – activity and participation. Impairment of any sensory system at any point of development can lead to difficulty in function. The way of learning: active learning is the important factor of reorganisation one can learn the proper intentions however the conscious appropriation of action is needed because its automatic components are faulty or missing. One therefore has to make a certain part of it conscious, that would otherwise disappear. The reaching of reorganisation is not a technique; it is not the result of applying a system. The reorganisation materialises during the course of education/ training. The disorganisation must not be considered a dysfunction, but as a lack of experience, lack of knowledge. It is therefore not a sickness, therefore cannot be cured. Only by way of learning can re-organisation be materialised. One can only facilitate conscious self-control, by selecting the proper goals, and to provide support bases for reaching those goals within a complex learning process.

### MOTIVATION

Definition: motivation is a term that refers to a process that elicits, controls, and sustains certain behaviours. According to various theories, motivation may be rooted in a basic need to minimise physical pain and maximise pleasure, or it may include specific needs such as eating and resting, or a desired object, goal, state of being, or it may be attributed to less apparent reasons. '

The term 'motivation' originates from 'movere', the Latin word for 'move'. It means the moving 'force'.

In psychology it is a generic term comprising all internal factors driving to act and to behave. As an activity, learning is produced in an appropriate interaction of the organism and the environment. A child is willing to learn if he/she has realised the purpose and significance of learning. On a higher level this is how the balance between the individual and the environment which drives to us to act manifests itself. To recognise the purpose of learning the influence of the environment (such as a conductor) and the internal need have to meet.

It is also used as a term of 'external' motivation in Conductive Education, which means all effects that the conductor uses to evoke inner motivation.

## OBSERVATION

Definition: observation is either an activity of a living being, such as a human, consisting of receiving information of the outside world through the senses, or the recording of data using scientific instruments. The term may also refer to any data collected during this activity.

Observation is a precondition of successful conductive education. Conductive observation is an integral part of pedagogical practice and is characterised by a global approach i.e. it may be directed towards all areas of development and their interconnections. Conductive observation is multifactorial and continuous. The applied methods of observation are all used during the process of the educational work in a complex way within the natural conditions of the dysfunctioning children's life, in their realistic relationships, and activities. The analysis of the results is from the aspect of the achievement of the conductive educational goals.

Conductive Education needs a special way of observation, the so-called conductive observation, which includes operative, comparative and progressive observation. Operative observation is a dynamic process, by which interconnections can be found and situations are created which assist with the solution of particular problems. Progressive observation is required so that the educator can carry out, and check every step of development. It can be broken down into logical steps – the point of departure being Conductive Education.. Comparative observation: Depending upon the effort needed to perform a task the same performance can be judged quite differently and the requirements for future activities are set accordingly.

(See more under Goal setting)

# ORTHOFUNCTION

Definition: Orthomotorium, in respect of motion, is in all circumstanmees the optimally appropriate mobility ensured by the perfect structural and functional unity of the nervous system. This is a precondition for the individual to cope with personal and social circumstances and to fulfil their life-tasks. "The term orthofunction describes an integrated cognitive performance as self realisation and self- regulation, which are considered to be cognitive mechanism". (Hári 1997)

Orthofunction is the individual's very versatile ability, which involves the entire personality, to meet biological and social requirements. People with motor disabilities are incapable of fulfilling age-appropriate requirements. As a result of conductive education it becomes technically possible to substitute lost or delayed functioning, thus the condition of orthofunction emerges i.e. a general ability to learn and adapt develops. Orthomotorium is the result of development, which may be delayed, limited or become distorted. It may mean the demand for independence, later on independence itself.

# PLASTICITY

Neuroplasticity is a non-specific term referring to the ability of the brain in all species to change structurally and functionally as a result of input from the environment. Plasticity occurs on a variety of levels, ranging from cellular changes involved in learning, to large-scale changes involved in cortical remapping in response to injury.

The most widely recognised forms of plasticity are learning, memory, and recovery from brain damage. During most of the 20th century, the general consensus among neuroscientists was that brain structure is relatively unalterable after a critical period during early childhood. This belief has been challenged by new findings, revealing that many aspects of the brain remain plastic even into adulthood.

The neurological basis of Conductive Education is neural plasticity. In the case of damage the residual capacity of the brain takes over the tasks of the injured areas. Latest research has proven the existence of plasticity which underlies Conductive Education. The discovery and functioning of mirror neurons verifies the reason for the existence of Conductive Education. Mirror neurons were first described in 1992. Some scientists consider this to be one of the most important recent discoveries in neuroscience. Some researchers also speculate that mirror systems may simulate observed actions, and thus contribute to the theory mind skills, while others relate mirror neurons to language abilities.

#### RHYTHMICAL INTENTION

Definition: The verbal equipment for intention. Rhythmical intention is the individual's intention said out loud in the first person singular.

In order for the person to be able to consciously acquire action, the action has to be broken down into sections and the person must be made aware of those sections. For able bodied people this occurs automati-cally. There are various methods of reinforcement subject to age and symptoms. Once the child has experienced movement, s/he must immediately be made aware of the action. This means that the child has accomplished the task with the applied support and the achieved result. Realised task solution must be identified with intending.

This way the child will learn his/her own movement and to express in words what s/he has done; s/he will learn to interpret his/her own action. When a child with motor disorder learns a particular action, i.e. how to achieve the intended aim, the implementation is not visible; s/he learns the appropriate method of intending. Intention is a specific human formation, accompanied by internal motivation and dynamism. In addition to the energy of volition, an internal rhythm, an internal image, a plan of action appear, which become general when the action has turned automatic. Interpreting intending as rhythmical speech is incorrect: mere speech is not intending, speech is only the audible sign of intending. Rhythm, created by speech, supports the coordination of the sequence of actions and their arrangement in time and helps link the single parts together automatically. Rhythm, perception and motion are closely interrelated. Embracing the elements of movement, rhythm makes conscious control possible. After all, rhythmical intending serves the development of purposeful voluntary activities in people with motor disorders.

Initially, with a non- verbal person with dysfunction we use the rhythm of speech or a song which activates action; later on the song with the familiar rhythm or the word becomes an indicator of action. Linking a well chosen piece of music with movement may help relax the muscle tone, decrease excessive movements and set the rhythm for motion.

(See more under Goal setting)

### TASK – TASK SERIES

Definition: The entirety of algorithmically constructed tasks which are typically age and symptom specific.

Factors influencing the designing of task series: The problem that we would like to solve (the skills which we would like to teach), the symptoms of the group which we are designing tasks for, the age range of the group, ratio of severity, the steps of normal development in terms of developmental psychology and anatomy. As part of the complex programme, the conductive task series comprise the programme and tasks for achieving the goals of a given group set for a defined time. During the composition of task series symptom-specific characteristics, the intellectual age and the capacity to tolerate load, the principle of gradation and the algorithmic sequence are taken into account. The tasks of the task series are the same for everybody but the solutions, the used methods of assistance as well as the time and rhythm planned for performing the task may vary. The solution of a task in the task series is not an end in itself. In Conductive Education the tasks serve diverse goals, thus in an algorithmic construction they function also as observation criteria. The elaborated methods of procedure will turn into knowledge capable of performance if the opportunity is provided for practising these in various combinations and problem solving situations.

# History of the disabled and of Conductive Education in the partners` countries

## Austria history

Austria was one of the first countries with compulsory school attendance (1774). Already in the early 19th century the first special schools for blind and deaf-dumb children were established. More than 50 years later, schools for mentally handicapped children were founded. World War I and especially World War II brought a big step backwards in the field of special education of children with disability.

After World War II, when disabled children were classified as not worthy of living, there were not many handicapped people left. It took some years until the necessity of special education schools rose again. In the 1950s special schools were built and still exist today. Since 1993 handicapped children have the possibility to attend mainstream schools. This was the beginning of inclusion.

Mrs Helga Keil-Bastendorff was the key person in the implementation of Conductive Education in Austria. Being a trained physiotherapist and kindergarten pedagogue working with children with cerebral palsy, she got in contact with Dr. András Pető in Budapest and was fascinated by the holistic way of teaching movement and supporting all areas of the children's personalities at the same time.

She started to work with children in her private flat, following the principles of Dr. Pető. As the children's

improvement was obvious, more parents wanted their children to attend a daily group. In 1968 Institut Keil was founded, with several groups for children with cerebral palsy.

Due to improved medical treatment and obstetrics the number of children with minimal motor impairment decreased, whereas the number of children with multiple and severe disabilities increased. Institut Keil reacted and adapted the Conductive Education system for these children.

1973 Mrs. Keil-Bastendorff founded ÖVSE (Austrian Association for Spastics Habilitation) – running groups for adults with cerebral palsy.

1978 the first integrated kindergarten for children with and without disability started, with daily Conductive Education units for the children with disabilities.

1987 the first Conductive Education school started. KOMIT-Schule is a private school, recognised by the authorities, with own statutes – learning of movement is an equal aim with the content of the schedule.

1997 another association for Conductive Education groups for adults was founded.

In the early 21st century Conductive Education was also adapted for children with sensory needs and Autism Spectrum Disorders. The "Sensory Conductive" approach especially for this target group was developed and presented in the scientific world at the Conductive Education World congress in Hong Kong, 2010.

Conductive Education courses for professionals started in the 1970s and developed to a postgraduate conductors' training (for already qualified pedagogues and therapists) at the University of Vienna, which started for the first time in 2000.

In 2004 the European Conductors Association was founded.

Institut Keil initiated the first European Comenius project from 1999 to 2002; partners were Germany, UK, Norway and Austria. The topic was comparing conductors´ training in Europe and finding common modules for a common European training.

2010 -2012, Institut Keil is partner in 3 European partnerships, Leonardo, Comenius and Grundtvig.

It is an old Viennese tradition that the fields of medicine and pedagogy / psychology work closely together. At present the field of neuro-orthopaedic rehabilitation and Conductive Education are in a fruitful relationship. Neuro-orthopaedic content is taught in the Conductive Education training courses and Conductive Education contents in the University courses for MA in Neuro Orthopaedics.

Conductive Education in Austria is called "Konduktiv Mehrfachtherapeutische Förderung" and is part of the social welfare system and also the health care system. According to the Austrian term of Conductive Education, the therapeutical and pedagogical parts are financed by both systems. The holistic approach and unity of therapy and pedagogy is also represented through ther financing bodies.

2012 Conductive Education is pretty well known in the field of children's rehabilitation. There are small units – day care centres and medical service centres - spread

around the eastern part of Austria (GFGF – Gesellschaft für ganzheitliche Förderung) and one big rehabilitation centre in the building of a hospital (Kids Chance – Bad Radkersburg). In Linz there also is a Conductive Education Institute, Mehrfach Therapie Zentrum.

In the capital of Austria 3 organisations are offering Conductive Education for adults with cerebral palsy (ÖVSE, KOMIT, ITA). Institut Keil and ZIM are offering day care centres, kindergarten and school, in Conductive Education and inclusive groups. Germany history

At World War II, disabled children were classified as not worth living. The few disabled people left were living either at home with their families or, especially multidisabled people, in care facilities. Only few centres existed for therapy and special educational needs.

Later in West Germany, engaged parents founded local associations as self-help centres and to offer free time activities to provide some participation for their children. 1959 the Federal Association for People with Motor and Multi Disorders (Bundesverband für Körper- und Mehrfachbehinderte) was founded.

From the beginning of the 1970s the generally held view was that multi-disabled children could also take part in educational and therapeutic settings. Special schools for multi disabled children were opened. New professions for special pedagogics were established for different target groups.

Training as well as therapy was carried out by different experts in separate, additional training units. A complex education for all needs of the personality from a single source was not available.

The German contact with the Pető Institute in Budapest started in the early 1960s. Following visits to the Institute from professionals of the health and education sector, several descriptions about the practical work in Budapest were published mostly in medical specialist periodicals (Klein, 1962; Hartwig, 1962; Eckhard, 1964; Lehnhardt 1965; Ungvari and Schmidt, 1967). These early reports aroused little academic interest (Kressin, 1971) and Conductive Education stayed rather unnoticed by the people concerned until the 1980s

Since the mid-1980s, when Conductive Education became more known by parents of children with motor disorders, particularly through the media, a huge interest in the Pető Institute began to build up. It was the start of therapy tourism to the Institute and in the following years, the Germans represented the majority of its international clientele (Balogh and Horváth, 1998). Despite the geographical distance, many parents chose to go to Hungary for Conductive Education, but an urgent demand arose for the availability of Conductive Education nearby, in Germany.

Conductive Education in Germany in the late 1980s was characterised by rejections by health and education organisations due to fear of the new competitive system from Hungary (Ákos and Ákos, 1989).<sup>10</sup>

In 1985 Karin Weber, professor of University of Siegen, visited the Pető Institute and then carried out a study about Conductive Education. It was the first clinical pilot study from 1990 until 1992, with Prof. K. Weber as a scientific collaborator and Dr. M. Rochel in the Taunusklinik Falkenstein/Königstein.

<sup>10</sup> RAPHAELA RÜTER (2003), Professional training in Conductive Education in Germany and Austria, pp.7-8, Dissertation. Wolverhampton: University of Wolverhampton With the assistance of Beate Höß-Zenker, Pfennigparade, in 1990 Professor Weber offered the first workshop on Conductive Education for specialists at Pfennigparade in Munich. She also offered a 3-day course in Conductive Education for specialists.

From 1990 parents' associations were founded in several cities, for example: Schritt-für-Schritt e.V. in Hamburg and the FortSchritt Associations in Starnberg, Munich and other cities of Germany.

Since 1992 these associations have employed conductors, provided summer camps and cooperated with the Pető Institute for projects and camps.

In 1995 the Pfennigparade Foundation, Munich, first launched Conductive Education in kindergarten and school and at the same time started centres in Nuremberg (Verein für Menschen mit Körperbehinderung), Würzburg Kempten and other cities, in cooperation with the Pető Institute.

The conductive school-classes in Pfennigparade School under the direction of Roland Baumann, Beate Höß-Zenker and Mariann Stelczerne-Oberszt were successful and this led to the Bavarian Ministry of Culture supporting a pilot-project at five conductive schools between 1997 and 2000. It was the start of the integration of Conductive Education in the school and rehabilitation system in Germany.

### **European Networking**

Between 2000 and 2003 an early European COMENI-US Project for the development of a European curriculum for conductor training with Norway, UK, Austria and Germany took place. This led to the founding of the European Conductive Association (ECA) in 2004 in Budapest.

## Financing and recognition

Until 2005 there was still hope of receiving financing for Conductive Education through the German health insurance system, and also through recognition by the Ministry of Culture and the integration of Conductive Education into the school system.

After the publication of a study by the Munich Child's Centre and the VdAK in Munich, in 2005, the Federal Commission of Doctors and Health Insurance Companies (Gemeinsamer Bundesausschuss der Ärzte und Krankenkassen, GBA) decided that Conductive Education will not be covered by the health insurance system.

Conductive Education can be financed by the socialcare system in daily-care groups and at the request of individuals.

Today there are 60 institutions in Germany, clinics, schools and associations that work conductively, providing services for children, teenagers and adults. Presently there are more than 100 Hungarian trained conductors working in Germany, plus there are 70 pedagogic-therapeutic-conductors who took the further education course offered at Pfennigparade, some Academic-multi-therapeutic-Conductors trained in Austria and some conductors trained in the UK. Some conductors work in homogeneous conductor teams, others in multi-and interdisciplinary teams and some as freelance providers. All conductors which was founded in 1998.

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There is an active network for service providers and also there is the professional association, through both of which an exchange of experiences in the field of practice and financing can take place. This is now supported by the Federal Association for Conductive Education according Pető (bkf).

Further education in the field of Conductive Education has gradually been established, thanks to a continuous rise of interest from parents, educators and therapists The result of this is that small conductive units has started. These units have achieved very diverse integration of conductive content in their concepts of pedagogy.

Conductors are working also in inclusive settings in kindergarten and schools.

To establish Conductive Education and the profession of conductor in Germany discussions have been taking place with Universities for a German conductor training in cooperation with the Pető Institute in Budapest since 2010.

#### Hungarian history

The Conductive Education, which is adopted worldwide by professionals conducting people with motor disabilities, is more than 60 years old. Elaborated and introduced by physician András Pető and his colleagues in Hungary. The procedure aims at rehabilitation and is implemented in the setting of a complex educational system. András Pető's method, conductive pedagogy, is also known as conductive education, Pető method, Petö concept, Petö system, konduktive Förderung etc.

The early view of disability

Before World War II, children with disabilities were hidden in their home or in special Institutions. They did not receive development and education as they were considered "ineducable". There was an initiation in Budapest in 1903, which founded a home called: "Association and Home for the Crippled Children". They could admit 6 children and they could focus on educating them only at that time.

Between 1913 and 1939 the common view was that due to the special teaching and education, the relatively large number of poor intellectual capacity, abnormal and different psychics and limited work opportunities the "handicapped" and the "crippled" were positioned into the field of healing pedagogy. (József Vértes O.: Healing Pedagogy 5., p. 25-30)

In the 1930s it was thought that the education of the crippled is not special education as the theory was not elaborated. It was recognised though that it was an area where valuable work could be done.

At the end of the 1940s a slow development started. The educational authority bestowed the education of the crippled to the educational duty of elementary schools. At that stage it was unorganised and professionals dealing with their development were lacking.

Later on the education and treatment of cerebral palsied children in Hungary presented serious problems of organisation, not least of which is the division of child's time among education, three types of therapy, and care.

Special education in early 50s

The leading experts of Hungarian special education placed the "crippled" within their own range of competence. In the '40s the College adopted the issue of the education of the disabled in its curriculum and made plans for the training of special teachers for the institute of the "crippled".

Physiotherapy has developed from the physical therapy in connection with orthopaedics, but compared to its original meaning in the 1930s it refers to a wider range of special physical education.

The main feature of training was based on so called healing education and movement pedagogy. Healing education does not merely refer to the procedures curing the physically handicapped. The improvement of physical, motor or expressive (mimic) defects, disorders and deficiencies due to or originating from deafness, blindness or mental deficiency is carried out by healing education.

Movement pedagogy, as one of the basic general studies of primary importance in the training of special teachers was introduced here and since then it was realised that the improvement of movement is essential in every field of special education, applying the same procedures, with a standard methodology and diverse, deficiency specific methods.

Citation from A. Lanyi College professor from Bárczi Gusztáv Special Education Teacher training College (BGGYTF):

> "And then, in really one of the most critical moments of Hungarian special teacher training András Pető, like an angel from heaven, showed up in the special education institution and the College sharing the same building in Alkotás Street to co-operate with Bárczi in opening the institute of movement education for the motor disabled whose disability originated from the injury to the central nervous system."

András Pető became one of the deans of the college which specialised in training professionals for special education. Pető indicated that the development of children with motor impairment needed complex education and therefore the professionals needed complex and many-sided training. The comprehensive training is still kept in the present conductor training.

The separation of Conductive Education from Special education

- Actually Dr. A. Pető's institute separated from
- special education in 1950 (National Institute of Movement Therapy)
- The separation in the training of professionals took place in 1963 (2-year training started in 1963 and the 4-year higher education level conductor-teacher training was introduced in 1967 – leaving the pedagogical competence applicable only at the Institute)
- As a recognition of the complex educational activity imp-

lying rehabilitation, the Institute for Conductive Education of the Motor Disabled and Conductors' College was established (1963).

 According to its name, apart from the conductive education of the motor disabled, the independent, higher education level training of Conductive Education professionals was carried out at the Institute, opening a new chapter in the training of professionals required for Conductive Education.

# The support

It has been improving since the early 50s. Wheelchairs, prothesis, orthotics, etc. were provided though they were not always of appropriate size or comfortable for the user. It has been improving since and the technology development is applied in this area.

Government support has been provided for their welfare, financial support was given on special request. Devices (special aids) which were recommended by specialist doctors could be provided as well. Other types of equipment partly have to be supported financially by the family.

Support systems in Hungary at present:

- Financial provisions (family, child bearing support, special: longer time provided for maternity leave etc.)
- Tax-exemption
- Child welfare system (family support for homecare, health home, rehabilitation institute etc.)
- National Health Insurance (free or reduced price for the required medicine and equipment)

Currently, alongside government support lots of civil organisations have been founded which provide help for people with special needs and their families. Even some of the special therapies or treatments can be provided by civil organisations. The development of Conductive Education András Pető began experimental physical therapy work in Budapest under the name "Pestalozzi Outpatient Clinic" following World War II. He began his work in two empty rooms connected by a corridor. Initially, he began therapy with 14 children with severe motor disorder in such modest circumstances. Four medical students assisted his work.

In 1950 the state-supported Institute opened, a onestorey building, under the strict guidance of András Pető. He was working with 8 groups at the time. Groups were formed according to diagnosis, meaning people of the same clinical condition were grouped together. By learning more about the various forms of disability, the continuous development of the applied exercises, the complex approach of the method and the ever-increasing practical and theoretical experiences, younger age groups were gradually allowed to enter the programme.

At first, nursery-school children received therapy, accompanied by their parents, on an out-patient basis. This group was called the "singing group", which meant the conductor stood in front of the parents, sang the whole time and showed them the tasks they had to perform. The parents tried to follow suit. The "mother and child group" evolved from this group, where the parents were also trained and the exercises explained to them. Even at such an early time (end of 1950s, beginning of 1960s) Pető was already dealing with early development, early intervention.

Aside from the groups, ever since the opening of the building, it also housed a 24-hour on-call medical service, physician on duty, various specialists (orthopaedist, dermatologist, urologist, neurologist, paediatrician), and two management personnel.

The situation between 1960 and 1985 A continuous increase in the number of employees, the ever-growing groups and the start of college education training made it an absolute necessity to further expand the building. András Pető participated in the architectural planning of the building until his death in 1967. The building was finished in 1985.

The Pető Institute at present

The Pető Institute gained its college status in higher education in 1987. The second training programme of the College, such as conductor – preschool teachers was accredited in 2003.

In 2006 and 2011 the undergraduate (BA) conductor training programme with specialisations was accredited Practice Institute:

Since 2009 the current structure:

- Conductive kindergarten
- Conductive primary, boarding and technical preparatory school
- Unified Conductive Methodological Institute (Department of Conductive Educational Special Services and Professional Services, Department of Conductive Education and Rehabilitation for Adults, International Conductive Education Unit)

The lecture rooms of the College were completely refurbished, and the Library was modernised from grants from the European Commission and the Hungarian Government.

After Pető's death Dr. Mária Hári became the director of the Pető Institute, and continued the fight for the training

and the Hungarian network as Pető's heritage. Her achievements included the establishment of departments at the Pető College and of independent conductor-teacher training, which were continued by her successors. Dr. Hári participated in numerous national and international conferences and was instrumental in setting up the international network. She was awarded a degree of Doctor Honoris Causa from Birmingham University and an OBE from Queen Elizabeth II. A founding member and life President of the International Pető Association, she took an active part in the Association's life until the Fourth World Congress on Conductive Education.

When she wrote her lecture for the conference she was already gravely ill and participants could only hear her voice. The Institute's library and research centre, which has a collection of valuable volumes, now bears her name. All her life she was struggling for safeguarding the quality of Conductive Education.

Conductive Education network

The improvement of the services and the increased number of patients from the countryside determined the framework and organisation of the network. Therefore the Detachment for Network Development and Counselling was set up at the Pető Institute in 1985 in order to:

- Build and maintain contact with partner institutes and authorities in order to enhance network development and the exchange of working methods and best practice.
- Provide the most appropriate form of Conductive Education for newly registered motor impaired people.
- Provide professional leadership and maintaining the quality of Conductive Education in the network.
• Organise in-service training for conductors from the institutes outside the capital.

The teachers of the accepting schools, who are only now learning how to deal with handicapped children, should be encouraged to seek advice from the conductive centres. This dialogue between the various disciplines can only benefit the handicapped. A `travelling teacher service', which already exists in several places, should be extended to all regional and local centres in order to help the integration of motor impaired children at local schools and to screen those children who need to be treated at a special institute.

### Challenges in the future

Pető concept is able to maintain its holistic approach and its underlying principles formed by András Pető. Moreover, it is proving to be flexible enough to learn about new scientific findings and adapt them, taking into consideration the social, economic and other required expectations.

#### Swedish history

Sweden was a poor country well into the 1900's, when hardly any care existed for people with disabilities, the people were hidden away in poor relief, and later in psychiatry. It was long believed the psyche was deformed, because of the people with cerebral palsy slurred their speech and had twisted bodies.

In the 1950s, after physiotherapy started to be developed to help the war wounded, this was also tested on neurologically impaired. Of course, it led to increased mobility for the individual, but physiotherapy did not result in any dramatic changes for the people as a member of the community, in terms of increased educational attainment, improving job opportunities or better possibilities to be able to live independent lives or participate in society.

In the 1960s, it was recognised that other efforts, rather than just training the body with physical therapy, were needed.

The Swedish economy flourished in the 1960s and there was a strong political awareness of justice- and equityideal. Politically, everyone thought that it was possible to legislate for justice and equality. We called it social engineering.

For the physically disabled, it meant, among other things, that you got the right to attend school through a compulsory school attendance law which was introduced in 1963 for disabled (for others in 1842), some years later came the laws of assistance at home, in school and at work and access to university study for disabled students, etc.

These laws really changed the lives and opportunities for the physically disabled. In addition there was a side effect that attitudes towards disabled people also became more positive, even among able-bodied people.

During the 1970s, the development of aids for the disabled began and a new profession was created, Occupational Therapists, who began working side by side with the physiotherapists.

To help with speech came speech therapists into the team. Psychologists were needed when the disabled children had a richer life, because of all the efforts.

If you have mobility problems, you also have difficult in paying, therefore special education teachers were also linked to the habilitation team.

This habilitation team, since the 1970's, is formatting habilitation, the care for neurologically impaired in Sweden.

Because the physical therapists only became a part of a large habilitation team – there was a significant decrease in the importance of training.

The value of disability care for society as a whole increased more if the efforts were directed to stimulate the intellectual side of the person and by adapting the surroundings of the disabled person, instead of trying to train and develop the person's body.

Physiotherapy education was also changed in the 70's. Prior to this it was a pedagogical education, now it became medical. This means the physiotherapy duties in Sweden, are increasingly similar to the general practitioner doctor. Consequently the physiotherapist has been more and more a consultant who prescribes treatment. It is the assistants and the relatives of the disabled people who perform the training that the physiotherapist prescribes. Prior to the changes it was the physiotherapist who trained the patient, hands-on.

In 1993 a major reform was introduced in Sweden that gave disabled people the right to personal assistance in order to participate in all aspects of community life.

All these reforms implemented in Sweden mean that a disabled person can live a good life, without being hindered by his/her physical weaknesses. Well, almost without having to use his/her body at all, because of all adaptation and assistance.

In the mid-1990s, there were some parents of cerebral palsied children, who felt it was important for the children to move. They asked for more support for the training of their children's bodies, more than the habilitation could offer.

Rumours of an alternative training method in Hungary was spread, and caused some parents to go to Budapest to try Conductive Education, although the habilitation warned them against it.

The parents felt, however, that Conductive Education was a very natural and an obvious way to help and develop their children.

Habilitation and the officials in Sweden, who are supposed to be experts on the care and development of the neurologically disabled, showed a compact resistance

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and disinterest in Conductive Education from the start.

Some parents therefore felt compelled to take matters into their own hands. A parents' association was founded and Move & Walk with Conductive Education conductors arrived in Sweden 1995, first as an experiment, but since 1997, Move & Walk is permanently established, and several other private centres have grown up since then.

Only one habilitation in Sweden has Conductive Education as part of their business, Bräcke Diakoni. Neither the researchers nor the other habilitation centres in Sweden have embraced, or even shown an interest in Conductive Education.

Several habilitation centres in recent years have however started cooperating with the Conductive Education centres in order to coordinate the interventions as effectively as possible and to help the shared people in the best possible way.

The interest at a political level has been greater than from the professionals. Politicians have been listening more to people's requests, than the professional's objections. Therefore, Conductive Education is offered in large parts of Sweden as a supplement to the habilitation, as a state-financed health care.

Conductive Education is not only health care in Sweden. Conductive Education is also used as a pedagogical concept in schools.

There is a school in Stockholm and a school in Gothenburg, which conducts teaching and training according to Conductive Education. More Conductive Education schools are also planned.

In Gothenburg, there is also a Conductive Education pre-school.

Conductive Education is also a system of knowledge requested in social services and independent living. Social services, according to the Conductive Education model, is being developing and is growing rapidly.

### Participants in the project

# AUSTRIA, THERAPIE INSTITUT KEIL

Institut Keil, a non-profit organisation in Austria, is a provider of complex (re-)habilitation for babies, children and young adults with motor disabilities, perception disorders and multiple and severe disabilities. In our daily work different specialists are working together in transdisciplinary teams. It is always the goal to lead the individual to develop his or her personality in a holistic way, to achieve the greatest degree of independence, integration into society and enjoyment of life. Conductive Education (in Austria: Konduktiv Mehrfachtherapeutische Förderung has been practiced in our institution for more than 40 years.

All departments of the institute are recognised placements for practical training of different vocational training programmes (as social pedagogues, teachers and kindergarten pedagogues, therapists, conductors, ...).

Special features and additional services (also placements e.g. riding instructors, disabled sports instructors, ...):

Adapted sports for the disabled based on Conductive Education principles: therapeutic horseback riding, swimming and ski bob courses.

Within the partnership Institut Keil will offer exchange of experience in the field of practical training.

## GERMANY, NATIONAL PROFESSIONAL ASSOCIATION OF CON-DUCTORS

The "Bundesverband der Konduktoren e.V." (National Association of Conductors in Germany) was founded in 1998. We are a professional association and work towards the increasing acceptance of complex rehabilitation, quality management of Conductive Education and international and national networking between all stakeholders.

The Association is active throughout Germany.

Since 2000 we have been responsible for organising conferences on Conductive Education in conjunction with one of the country's service providers which take place every other year. The conferences` main aim is to offer vocational training for conductors and other professionals who work in the rehabilitation and education sectors for people with motor disorders; another goal is to disseminate information and generate more networking in Germany.

We are founding members of the European Conductive Association (ECA) and work within their professional sections.

#### GERMANY, PFENNIGPARADE - PHOENIX INSTITUTE

The organization of the German rehabilitation centre Pfennigparade, The Phoenix Institution is the biggest conductive Institute in Germany. There is the possibility of offering conductive day nursery, school preparation, school for special needs and residential programme for scholars who come from disadvantaged areas. The school has about 110 places. Since 2009 there is a programme for the inclusion of handicapped children in mainstream schools.

In working with the project Phoenix Institution could offer the participants a good working understanding on how a quality integrated centre functions. Since 2007 Phoenix with its conductive concept is certified by EFQM quality standards. They could offer a point of view where conduction is practised in all ages of children with disabilities as well as where the professionals work in transdisciplinary teams. The participants of the project will be able to see how a conductive school operates in smaller institution setting as well as how mixed groups function. In the Phoenix Academy German trained conductors are qualified in a 2 years further training for pedagogues and therapists. The programme is partly financed by the Bavarian Ministries for Culture and Social Affairs.

In 2004 Pfennigparade opened a new building with special conductive design and architecture to house the first purpose built Conductive Education Institute, Phoenix GmbH. The centre has its own conductive primary school and secondary school and conductive residential school, situated in Munich. Since 2007 the Phoenix Conductive Institute has been awarded the Quality Price by the German Federal Association of Private Providers of Social Services (bpa) and is certified according to the EFQM (European Foundation for Quality Management); it now provides services for 120 children and has 90 staff members

### Training

In 2000 Pfennigparade launched the first further conductive training programme for specialists in special education and therapy in collaboration with the Bavarian Ministries of Education and Social Affairs. The curriculum is based on the Pető Institute's Curriculum as well as on the results of the Comenius Project, 2000 – 2003. The further training is led by Dr. A. Baumann, M. Stelczerne-Oberszt and B. Höß-Zenker, and international speakers are invited. The development of this training for teachers, educators and therapists has made it possible to establish Conductive Education in public schools, kindergartens, therapy centres and other facilities.

Since 2010 a university training is being planned but has not yet been realised. In 2012, at the time of writing, the first steps have been made towards establishing a BA degree with conductive content in collaboration with the Pető Institute, Vienna University and a Nuremberg College of Education.

### Future

Pfennigparade will offer the first Conductive Education workshop environment for adults with disability from 2012. In 2013 the 8th World Congress on Conductive Education will take place in Munich in Germany.

### HUNGARY, THE PETŐ INSTITUTE

The András Pető Institute of Conductive Education and Conductor Training College (Pető Institute) is a state supported, nonprofit organisation maintained by a private foundation in Hungary, providing Conductive Education for persons with motor impairments originating from damage to the central nervous system.

The Pető Institute has more than 60 years of experience in pedagogic rehabilitation through conductive education. At present the Pető Institute has the following units to provide its services from early age to adulthood and from the first assessment to aftercare: Conductive Kindergarten and Conductive School and the Unified Conductive Methodology Institute. Counselling is also provided for families and institutions.

The aim of Conductive Education is to improve the quality of life for people with motor impairments from infancy to adulthood. Through active learning, the children become able to compensate for their difficulties. In spite of their motor impairment they become more independent therefore they will need less health and physical support from their community. This will give them a better chance later in life for employment, becoming more active members in society. The Pető Institute prepares the pupils for integration and inclusion into the society and the public education system.

Adults with cerebral palsy, cranial and spine injuries, stroke, Parkinson and Multiple Sclerosis also benefit from Conductive Education in improving the quality of their life. The Pető Institute has been training conductors since 1963. The holistic approach of personality development is predominant during the practical training of the college education and in the practice as well.

Now the training is at a BA level in the College and on a national level. The College also has experience in joint training with other national universities and colleges. Until 2006 the Pető Institute trained professionals from several countries. Therefore the conductors and other professionals trained at the Pető Institute helped conductive education spread both in Europe and outside of Europe.

The Pető Institute also provides courses and trainings for other professionals who are interested in Conductive Education on a national and international level. Now the College has an Adult Education Department for improving its training.

The Pető Institute is carrying out scientific research in the field of Conductive Education.

The Institute has a national network and provides consultation for specialists who deal with the development of children with cerebral palsy.

The Institute also provides international services for children and adults from all over the world.

## SWEDEN MOVE & WALK

Move & Walk a Swedish Ltd company, provides habilitation, rehabilitation, social service and educational courses in Conductive Education for children, youth and adults with neurological functional disorders. Move & Walk has approximately 150 employees and consists of these departments:

- 1. school,
- 2. therapy activities and
- 3. personal assistance services.

All activities undertaken pursue Conductive Education.

Target groups; neurologically disabled, Cerebral Palsy, Stroke, MS, Parkinson etc.

Move & Walk-school in Gothenburg: primary and secondary schools for pupils with learning disabilities.

Move & Walk-therapy in Stockholm a day care centre and in Gothenburg a centre with round the clock services.

Move & Walk-assistance with customers and operations throughout all of Sweden.

Move & Walk also provides courses in Conductive Education for parents, assistants, teachers, physiotherapists and other specialists. REFERENCES Swedish history and Reflection

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