In 1997 The National Institute for Conductive Education entered into partnership with Wolverhampton University and begin conductor training. Upon graduation, students will gain a BA (Hons) in Conductive Education, awarded by the university. The structure of student funding in England and Wales limits the course to three years (full time equivalent).

This training is designed to produce academically qualified professionals able to articulate their own professional work, who are also confident and competent practitioners armed with the 'hands on' skills to conduct children, adults and families.

In addition to the BA (Hons) the Foundation for Conductive Education will award Qualified Conductor Status to students who achieve an agreed standard of practice. In order to monitor this, certified competencies of practice have to be demonstrated and recorded by the student. These will subsequently provide documented evidence of the breadth and quality of conductors' practical skills to future employers.

Competency-based learning ensures that students consistently achieve definable standards in a wide range of skills, including planning and leading programmes, structuring development reports, demonstrating appropriate facilitation, writing tasks etc. Students are required to master around fifteen competencies per year, each one having to be completed for progress to the following year of study. Practical group work is carried out towards meeting these competencies on a twice weekly basis for the whole of the course, during which time the group leaders will teach and monitor progress of students. Additional practical placements are added to increase experience and practice.

Competencies are mainly generalisable across all practical situations, whether these be with babies, children or adults. Specific competencies may be carried across semesters according to practice placements.

This paper discusses the use of competency-based training as an effective way of monitoring professional standards both for those training to work within CE and by providing a detailed record of achievement for future employers of conductors.
A short summary of the first 3 years of the project is given at the beginning of the present study. The project was launched in autumn 1994. A research had been done during this time based on the request of the Norwegian Government. There were four Norwegian professionals who planned and did the research with the co-operation of the International Pető Institute.

There areas of development were studied, i.e. children's physical, motor and visual-motor development. A short summary of the result of the research is given below. Changes taking place in the children since the beginning are summarised. The first two weeks were the trial period which helped to do further observation of the children where we the effectiveness of conductive education at the first assessment could not be evaluated.

New assessments and admissions following the termination of the research will also be treated. In the spring of 1998 there were 10 new candidates at an assessment. The results of this assessment will be treated in detail. There were three other children who could be assessed for conductive education.

The present compositions of the groups will be explained and shown in details. Issues like how the changes effected the programmes of the groups will be introduced; fitting new children and the parents into the group and the situations of conductive education; Individual programmes for two children in the form of the School for Parents.

Possibilities of further developing the project and related plans will be introduced. There are two areas which need development: one is the organisation of a new group and studying the background of the possibilities of starting training of Norwegian conductors-teachers within the framework of a joint training programme with the International Pető Institute. Introducing the points of view of setting a new group and the possible variations of conductor training within Norwegian circumstances.
As widely known, beside hampering the learning of motor functions central nervous disorders also influence the entire psychosocial development of the individual. Unless an appropriate amount of special education is given in time, the complex and massive central nervous disorder will have a negative effect on speech as a whole. According to conductive education, a disabled child’s speech takes the same developmental process as a healthy one’s, however, he needs special assistance, special education and more time to learn what his healthy peers will acquire spontaneously. From this ensue the special goals, contents and methods of promoting speech development which form an integral part of the complex conductive education programme.

When promoting speech development, our main aim is to achieve full integration into the society. Thus a formal correction of articulation should not be seen as a dominant goal. Emphasis is placed upon the communicative aspects of speech, such as promoting speech comprehension, arousing the need to communicate and increasing the readiness to speak and to communicate. Performance parameters are subordinated to these areas and abstract and senseless language exercises which exclusively serve formal perfection are consistently rejected. Speech is learned as it is consistently employed as a means in rehabilitation, education and the organisation of time spent together (e.g. as a means of intention, regulation and acquisition of knowledge). Complex speech development certainly includes the promotion of articulation, phonation and breathing; it is, however, not restricted to qualifying the speech process. The promotion of speech development comprises all levels of speech structure, speech perception as well as speech production.

Speech development in conductive education is marked by the following exemplary selected principles:

The conductor's person is a guarantee that the promotion of speech is consistently incorporated in the process and always corresponds to the developmental level of the individuals.

The principle of activity ensures that speech is constantly combined with action. Better co-ordinated action implies progress in speech. Activity is connected with speech during the whole day and every opportunity is used in order that verbal contents are represented and experienced in a multisensory way.

A further principle is the unified system of requirements. A consistent combination of motion, verbalisation, intention and rhythm is realised in the entire programme.

Speech development is carried out in a unity of space and time and thus it combines motion, perception and speech, taking the communicative, cognitive and social functions of speech into consideration.

While speech is learned and applied, the combination and integration of visual, auditory, kinaesthetic and tactile stimuli will positively influence the process of acquiring speech. The promotion of personal activity and independence is a highly esteemed principle. E.g. active speech is brought about by putting the goals into words and by rhythmic intention. Thus speech development aims at teaching the child to, in terms of language, independently solve and control tasks. In this way
the principle of conductive education "the hand which guides but seldom touches" is taken into consideration during the promotion of verbal skills as well. The child gathers experience regarding language and learns how to express his *wishes, intention* and thoughts in various communicative situations.

The *special facilitation* of conductive education also arouses the child's verbal activity. The setting of goals, rhythmic intention, the combination of coordination with rhythm and the unity of speech, motion and voice are to be mentioned here. Furthermore, music education also has an important role in the promotion of speech development.

Literature:
34. What Characteristics Do Students Favour in Lectureres?

Éva Szabó Fekete
Júlia Horváth, Head of Department of Conductive Education
A. Salga
International Pető Institute, Budapest, Hungary
M. Pásztor
Police Academy, Budapest, Hungary

What qualities do students favour in lecturers? Evaluation criteria and lists of qualities composed by students were used for seeking answers to this question. Survey was conducted in two Hungarian institutions of higher education: The Pető András Institute for Conductive Education of the Motor Disabled and Conductors' College and the Police Academy. During research, results of evaluation by students were employed but the subject was approached indirectly as well. A sample of students were asked closed questions for double control. Our investigation raises further issues and shows the limits of lecturers' appraisal by students and the possibilities of utilising the outcome.

Students' formal or informal judgement on their lecturers has always been present in higher education while practices have changed. Its earliest and strongest manifestation was in the United States. We can find a great number of reasons to account for that, the most important ones probably being that conventions and traditions are less strong, students have a wide range of rights, they are determined to express their opinion and able to accurately conceive their expectations. Their main motive for studying is the hope to make a good living rather than interest in any particular subject. The development, the goal and the process of evaluation are fundamentally determined by those motives. At the beginning, introducing the appraisal was at the institutions' discretion. Later on, the students' intention became the drive of the process which is nowadays regulated by law and part of the Total Quality Management, a must for all 'serious' institutions. The role of the lecturers has also changed, initially they were passive sufferers but have turned into active promoters of the matter.

Meanwhile the technical literature on the subject was growing. More and more manuals were published, containing questionnaires and practical advice. It was characteristic of the period that, as education was more and more influenced by the market and the number of institutions was increasing, schools started to realise they had to convince the public when presenting to them their activities and the quality they were striving for. Evaluations were considered more important for they could be converted on the market as references.

**Applied methods. Hypothesis** Research was carried out in two institutions of higher education: The Pető András Institute for Conductive Education of the Motor Disabled and Conductors' College and the Police College.

For a start, the series of criteria composed in 1994 by the Students' Board of each institution for appraising lecturers were studied, analysed and compared. Apart from that, a list of favoured qualities was drawn up by random choice. It was thought that evaluation criteria chosen by students would focus on qualities and values they considered important. It is an interesting circumstance that Pető students were reluctant to assert their rights and showed little interest during the process. The academic staff of the College had to take firm measures in order to comply with legal regulations.

At the Police Academy, the very fact that students were entitled to judge lecturers evoked considerable emotions among the latter; nor did it generate unanimous enthusiasm among the students who were afraid of retaliation.
The ratio between genders was not taken into consideration. However, as a peculiarity it should be noted that at the Pető Institute female, at the Police Academy male students are in the majority. **During research the following issues were dealt with:**

1. Does the specific nature of the institutions (career orientation, direction) have an influence on the range of favoured qualities? Is there any difference between the series of criteria as composed by the Students' Boards of the Pető Institute and the Police Academy?  

2. Are there any differences between qualities favoured by first year students and senior students? What are those differences? 
   Applied method: interviewing students.

3. In what extent do students' depiction justify or diverge from the findings of practical research carried out since the 1960's?  

**Hypothesis 1:** The range of qualities that students consider essential are determined by the specific nature of the training. At the Police College it was assumed that age and similar circumstances of life were more significant than the different characters of the two colleges and therefore a high degree of coincidence was to be expected when comparing the two questionnaires.

**Hypothesis 2:** It was assumed that considerable discrepancies were to be found between the ranges of qualities favoured by first year students and senior students at each college.

**Hypothesis 3:** It was expected that the analysis of documents from each college would justify references of the technical literature. The more so since the specific natures of training at the two colleges were very different.

**Applied methods.**

It was intended that issues had to be approached from various aspects. By collecting lecturers' characteristics as concluded from the questionnaires, a list of incidences was compiled. If a sufficient number of students are interviewed, conclusions can be drawn. The questionnaires prepared by the Students' Boards of each college were compared using the method of document analysis. As a second step, random samples of first year and senior students were asked to compose lists of qualities. On the basis of the answers an hierarchy of incidences was set up. At the Police College, as part of a seminar, first year and senior students were asked to make eight points to describe a good lecturer. The author (Pásztor) used **content analysis** to analyse and compare the answers.

**Summarising** the qualities favoured by first year and last year students of the Pető Institute: General human qualities were put in the first place by both groups. It can be observed, however, that while first year students were mainly looking for kindness and attention, fourth year students gave a wide scale of required qualities making subtle differences. College leavers attached greater significance to a thorough grounding than first year students.

**An analysis of the lists of qualities may show**
the direction as to how the system of evaluation elements appearing in the training should be transformed.
35. Specialties of Secondary Learning Disorders in Motor Dysfunctions

M. Gruber
International Pető Institute, Budapest, Hungary

Factors impeding the learning process of persons with damage to the central nervous system

Beside uncoordinated movement, cerebromotor dysfunction comprises the lesion of other functions. Damage to the nervous system may imply slow intellectual development, disturbed motor functions, sensation, perception and thinking. The disturbance of psychomotor co-ordination appears primarily in visuomotor and acousticomotor co-ordination skills as poor concentration and speech disturbance.

Beside motor dysfunctions various anomalies of sensation are experienced. Apart from vision and hearing, the sense of balance, surface sensation and tactile function may also be affected. Due to the inaccurate processing of perception, orientation in space is often insecure and the comprehension of distance, size and shape is defective.

The vision of Gestalt (whole) lacking, the skills needed for transforming parts into a whole are also underdeveloped.

The development of body scheme is delayed. All these children need assistance to develop self-image and to experience it positively.

In kindergarten age the affected children show poorer performance or a significant delay in areas like social maturity, self help functions and cooperation during play activities.

As requirements grow in school age, learning difficulties, problems regarding handwriting, reading and mathematics appear.

The symptoms of general learning disorder may be seen as normal when appearing in a child with brain damage.

1) uncoordinated movement
2) inaccurate fine manipulation
3) disturbance of perception
4) disturbance of attention
5) poor memory
6) poor language skills
7) behaviour problems
8) specific forms of learning

Discovering the signs of a special learning disorder behind the general symptoms is much more difficult.

The notion of learning disorder

Difficulties with learning are related to functional anomalies of the central nervous system or organic damage to its structural system. The amount of technical literature treating the defective functioning of the integration between the two hemispheres is growing.

Children afflicted by learning disturbance have average intelligence but in certain partial areas show a lower level of performance than expected. The disturbance in the relation of central pathways is accompanied by a particular cognitive-psychological symptom complex. These disturbances of partial abilities often appear together, intensifying each other in the negative direction.

Secondary learning disorders

In a case where the clinical picture is complicated by other dysfunctions, setting up a diagnosis of learning disorder takes extensive consideration.
According to our hypothesis, in cerebromotor dysfunctions a special secondary learning disorder is present resulting from uncoordinated movement due to defective manual and visual experience, speech disability and complex damage to these. Where intellectual abilities are intact, it is immature sensomotor, graphomotor and visuomotor co-ordination and the loss of numerous partial abilities that lead to a secondary learning disorder. Specific about it is that it affects children who, as a result of damage to the central nervous system, have had motor dysfunctions since birth.

Cerebral palsy means severe damage to the brain causing special cognitive symptoms that make the learning process difficult.

The causes of secondary specific learning disorders in persons with motor dysfunctions

Disturbed motor abilities have great influence on learning. Beside uncoordinated movement, all depiction activities are hindered by underdeveloped fine manipulation and inaccurate, cramped pencil grip. We can see immature drawings and in some cases several years of delay in terms of depicting human figures.

Due to spasms or hyperkinetic movements, by the time they go to school, handwriting movements remain under the level required for advancement in about 50% of motor dysfunctioning children.

80% of our pupils have communication problems. In more severe cases metacommunication and the expression of emotions are also hampered. Depending on the lesion, anomalies of speech development include total inability to speak, dysarthria, moderate speech disorder and delayed speech development, these resulting in disturbed reading and writing.

The development of clear speech is hindered by lack of even breathing during speech and inaccurate hearing of speech. Speech, too, is motion. If a dysfunctioning person makes progress in one area, progress in the other will run parallel. A speech disorder has an effect on all learning processes as pupils with athetosis and good intelligence demonstrate best. Verbal expression is hampered by disturbances of articulation and the rhythm of speech.

The characteristics of mental retardation in persons with motor dysfunctions

The special defects of cognitive functions are sensitive indicators of the deficient functioning of the central nervous system.

1. Within the disturbances of perception, linking up visual and auditive information is difficult. The analysis of forms is poor, the incomplete recognition of the part/whole relation causes problems with writing, reading and calculation. The comprehension of reading is defective, instead of the text dysfunctioning persons may concentrate on the background. Quite often they are unable to recognise single letters if the size or colour is different from what they have grown familiar with.

2. Apart from underdeveloped attention in general there is a retardation of approx. 70% regarding the concentration, endurance, volume and division of attention as compared to the age group.

3. The structure and volume of the memory is also affected. Verbal retaining and recalling is
problematical, both the short and long term storage unit are afflicted.

4. According to the experience of pre-school evaluation tests, many of our pupils have poor calculation skills and delayed development regarding the notion of numbers. Where intelligence is on the lower borderline, the low level of logical thinking will determine the decision as to which type of education is to be followed.

Defective experiencing in motor dysfunctions

1. The various disturbances of laterality imply poor orientation in space and plane. Perception in space is inaccurate, ideas and notions concerning space are underdeveloped. Crossed dominance is found in approx. 50% of evaluated children. The body scheme is defective.

2. Being fixed to one place, motor dysfunctioning children's orientation skills regarding the daily routine are generally good, however, they have difficulty placing events further or earlier if these are not related to practical experience. The defective gathering of experience leads to erroneous and partial comprehension of the environment and thereby to confusion of notions and uncertainty. The intake and processing of information will be different in quality.

3. The disturbance of visuomotor coordination indicates confusion of directions as well. Instructions from the brain are misinterpreted and wrongly accomplished. This problem is independent from inaccurate fine manipulation. 20% of our pupils occasionally write down letters and figures inversely and have difficulties with orientation between the lines when reading.

4. Persons with moderate mental deficiency often have perseveration. Even those with intact intellect but damaged nervous system happen to stick to certain actions as switching to another action may be beyond the child's energies.

Anomalies of behaviour in motor dysfunctions

According to an internal study, apart from a different structure of personality, our pupils have a higher level of adaptability than their peers which must be a result of conductive education. The low level of dominant voluntary processes is a real problem. Task consciousness develops slowly but later on during integration great changes can be observed in this area as well. Infantile behaviour is still seen in 10% of our school children.

Hyperactivity is experienced mainly in pupils with tetraparesis who have learning disability as a secondary symptom and are often evaluated for transfer from one setting to another. The relatively low level of motor activity is more characteristic. Successful learning is certainly hindered by fatigability and fast distraction of attention.
In developed countries 8000 accidents fall to 1 million inhabitants. Half of the cases are put to hospital and 2 to 2.5% require further rehabilitation. ‘Accidents are the epidemic of our days’ (B. Szántó).

Recently, the interest in conductive education of adult dysfunctioned has been growing. For this reason it is important to show the implementation and effectiveness of this system within hospital framework on a rehabilitation ward mainly with traumatic skull injured. Our developing environment, increasing industrialisation, the growing number of means of transport and war conflicts raise the chances of dangerous situations where man is swept into accident situations.

The clinical form of brain injury is commotion, contusion or both. The basic symptom in former case is disorientation and syncope while focal symptom in the latter. Complications following the trauma like cerebral oedema, bleeding, meningitis developing a few days later and cerebral abscess may put the patient in life danger. Further complications are epilepsy and the lasting disturbances of psychical life like post traumatic psychoses, the lasting disturbances of emotional life, behavioural disorders, post traumatic dementia.

The consequences of brain injury are never limited only to motor, sensory, vegetative or psychic areas although various syndromes may come into limelight. Due to the injury the damage is not local but considerably functional. The whole system of relations between the individual and his/her environment changes. The brain injured develops a new personality. Because of the deterioration of adaptation skills the individual may be socially isolated and find him/herself on the peripheries of communities. Accidents mainly affect active generation and it is a social concern whether these people, after their survival, will regain or to what extent will they be able to approach their original self and will they be able to become a useful member of the society or vegetate through a sad life. This way the rehabilitation of the injured person is not only of individual but of social interest. Thus, it is not only medical care but special rehabilitation treatment is of great importance as these people are still to be regarded diseased. The mobilisation of the dysfunctioned starts at the acute phase, the learning and teaching process that can be continued on an outpatient basis if necessary as learning lost faculties anew is the result of a longer process.

The primary provision of the injured takes place at the accident ward or neurosurgery ward. Survival chances are determined by professional medical care, nursing, early physiotherapy, the location of the injury, its severity, the patient's age and emerging complications. Even in this period the patient regaining consciousness is to be contacted and somnolence, apathy and disorientation are to be released. Stimulus is to be increased. Family members' active presence at the patient is vital. Passive exercises, changing position are important together with the prevention of decubitus and fixations.

Following the cessation of life danger, after hospital treatment patients get to rehabilitation institutions, to the Ward of Skull Injured at the National Institute of Medical Rehabilitation in Budapest and to the rehabilitation wards of hospitals out of Budapest. A team of physicians, nurses, physiotherapists, social workers, occupational therapists, speech therapists, psychologists and in
many places conductors work with the
dysfunctioned at these wards.

The conductor’s presence is to be emphasised as
the result of a tough but fruitful work based upon
an agreement between the International Pető
Institute and the National Institute of Medical
Rehabilitation. Thanks to this agreement and the
prosperous work conductors are willingly employed
at hospital rehabilitation wards.

The newly opened ward for the skull injured served
at the same time as students’ practice place. At that
time Ashai Ichito worked here and enriched his
knowledge what he could avail himself of at the
Otoki Warashibe Institute, working with skull
injured patients.

At the ward for the skull injured already mentioned
the team of conductors (senior conductor,
conductors and 3rd year students) organically fitted
into the activities of the ward increased by
consultants while maintaining their professional
independence. A special system of conductive
education developed within medical framework
headed by a physician and a senior conductor.
Patients’ programme (the daily routine and the
tasks) fell under the conductors’ responsibility but
considering the medical problems of the brain
injured the physician was the decisive power in
debated issues (start of loading, increasing, acutely
occurring diseases which require the modification
of the programme).

The other team members helped conductive
educational work mainly as consultants. Individual
development included the examination results of
psychologists and speech therapists. It often
happened that conductors’ observations explained
problems coming up during examinations.

The optimal daily routine (for the group and each
individual) planned by the conductors for the whole
day plays an important role in the rehabilitation of
the brain injured by ensuring re-learning, recalling
and confirming the learned functions together with
gradual loading. The tasks cannot be merely
exercises but must include the development of
speech, perception, recognition, co-ordination,
planning of action and adequate behaviour.
Integrated function must be considered.

The development of directed activity, setting aims
is important to provide the condition of conscious
action. It can be reached by rhythmic intention,
positive emotional attitude from the part of the
dysfunctioned and the conductor and by a
constantly positive and assisting attitude beaming
confidence and understanding.

Summing up, it is never doing exercises but
continuous active learning based on the complex
development of the person. In view of the
achievements new tasks are given and success
encourages the dysfunctioned person to do more
work while the scope of his/her activities keep
widening where even 100% performance is possible.
Post traumatic rehabilitation is thus a joint duty of
the injured person and the society.

A draft daily routine is demonstrated here which
proved to be suitable to realise conductive
education at the hospital ward. It is clearly shown
how medical care,
times of visits and weekly meetings are fit into the
conductive daily routine. It is to be stated that a
daily routine for the full day requires an adequate
numeber of conductors.
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
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<th>Saturday</th>
<th>Sunday</th>
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<tr>
<td>7-8</td>
<td>learning to wash, toilet use, dress</td>
<td>see Monday.</td>
<td>see Monday.</td>
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<td>8-8.30</td>
<td>breakfast in the dining hall or in the ward, important to learn how to</td>
<td>see Monday.</td>
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<td>9-9.30</td>
<td>going into the group, sage, extension of contractures</td>
<td>going into the group, VISIT</td>
<td>going into the group, sage, extension of contractures</td>
<td>going into the group, sage, extension of contractures</td>
<td>going in group, VISIT</td>
<td>going in group, VISIT</td>
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<tr>
<td>9.30-10.30</td>
<td>No.1 lying tasks, changing place and position</td>
<td>VISIT</td>
<td>lying tasks, changing place and position</td>
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<td>9.30-10.30</td>
<td>No.2 hand tasks, from large movements to differentiated manipulation,</td>
<td>VISIT</td>
<td>hand tasks, from large movements to differentiated manipulation,</td>
<td>hand tasks, from large movements to differentiated manipulation,</td>
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<td>10.30-11.30</td>
<td>walking, preparation, walking</td>
<td>walking, preparation, walking</td>
<td>TEAM</td>
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<td>11.30-12.30</td>
<td>guided discussion</td>
<td>guided discussion</td>
<td>TEAM</td>
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<td>11.30-12.30</td>
<td>aphasia</td>
<td>TEAM</td>
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<td>11.30-12.30</td>
<td>difficult walking tasks, walking in the streets, tasks in situations</td>
<td>difficult walking tasks, walking in the streets, tasks in situations</td>
<td>TEAM</td>
<td>difficult walking tasks, walking in the streets, tasks in situations</td>
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<td>12.30-13.30</td>
<td>conditioning, hand wash, preparing for lunch</td>
<td>conditioning, hand wash, preparing for lunch</td>
<td>TEAM</td>
<td>conditioning, hand wash, preparing for lunch</td>
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<td>13.30-14</td>
<td>rest in the ward, conductors lunch</td>
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<td>14-15.30</td>
<td>hand tasks, writing, using</td>
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<td>15-16.30</td>
<td>individual tasks</td>
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<td>16-17.30</td>
<td>toilet, hand wash, preparing for dinner</td>
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<td>17-18.30</td>
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A SUMMARY OF THE BARTHEL INDEX
EVALUATION ASPECTS

1. Eating
   - Independently
   - With help
   - Being fed

2. Getting over from the wheelchair onto the bed
   - Totally independently
   - Under supervision
   - Able to sit up and helped to change seat

3. Personal washing
   - Washing hands, face etc.
   - Unable to do anything

4. Toilet use
   - Goes independently
   - Needs little help
   - Help or bedpan

5. Bathing
   - Without the presence of another person
   - Being washed

6. Walking on even ground
   - Making 50 meters without help
   - Supervision required
   - Unable to walk but uses wheelchair
   - Unable to use wheelchair

7. Walking up and down on stairs
   - Independent
   - Little help required
   - Unable

8. Dressing, undressing
   - Independently
   - Little help required

9. Keeping stool back
   - No accident
   - Occasional accidents

10. Keeping urine back
    - Night and day
    - Occasional accidents
37. Issues of the Psychomotor Development of CP Children— The Importance of Conductive Observation and Psychological Tests

Júlia Horváth, Head of Department of Conductive Education
Zs. Nagy
International Pető Institute, Budapest, Hungary

The determination of the level of development and the achieved results of the dysfunctioning depends on the Conductive Education (CE) process being systematic and planned. There are no valuable data to examine the efficiency of education and no standard evaluation series exists to evaluate cerebral paretic children. There are only a few researches done at the Pető Institute by factor analysis and analysis of documents in order to follow the development of children and measure their achievements (Balogh, Kállay, Manger 1996 and Kozma, Horváth, Salga, Beck 1994).

Tests applied up to now can be used to evaluate partial functions (e.g. personality examination, intelligence, examination of drawings). In the process of development operative observation is used to plan advancement to ensure the child's progress. Conductive education observation is the adequate method to examine process variables. To register children's progress a general series of evaluation was elaborated which is just being adapted after a short trial period at the Institute's groups. The series of evaluation reflects activity is relatively objective, the series of aspects of observation do not depend on the skills of the person performing observation and can be used with every age group. Together with the documentation of children's progress according to the same aspects evaluation series make the evaluation and comparative analysis of a child's development possible.

It is suitable for the evaluation of the individual's and the group's progress as well. The tendency of development can be determined and the group's programme can be altered if necessary. It is rapid, can be applied by the conductors and is not limited to development phases thus making immediate feedback possible. Observation areas cover the main forms of human action. Numerical data can be presented graphically. During the construction of the evaluation series the functions were not only examined in themselves but related to each other, as well and a cross sectional balance was intended thus not a regular graph appeared. Advantages of the series of observation: valuable feedback from the practical point of view, help to execute rapid changes, to choose purposeful programmes and make the observation able to be applied in its longitudinal and cross sections. It has to be admitted that partial measurements, fine, descriptive observations cannot be disregarded of. This is the first evaluation series applied with motor disabled children which contributes to the registration of efficiency. Further applicability depends on a large number of assessments. The authors describe some of the problems and difficulties in applying well known psychological tests to handicapped children. A discussion is undertaken of the characteristic of the most well known and frequently applied tests together with an analysis of how these are adapted for use with dysfunctional children. However, none of the presently used tests provide a realistic picture when used with handicapped children and a possible solution to this problem is proposed using the conductive education tasks series as possible test items.
413 hemiparetic children have been assessed and rehabilitated at the Pető Institute from 1987 to 1998. 77 children (1-18 years old) were follow up (46 girls, 31 boys) minimum 3 years 48 children has right sided hemiparesis, 29 were epileptic, 21 of them responded well to monotherapy. 8 of them controlled well with polytherapy. None of them had status epilepticus. In case of 5 hemiplegics, due to the rare occurrence of seizures (1-3) only occasional rectal diazepam treatment is applied. 6 have occasional febrile convulsion. 4 children (3-5 years old) receive preventive anticonvulsive treatment for complicated febrile convulsion. The onset of seizure in 43 % of children is under the age of 2. 45 % hemiplegic CP children receive mainstream or special education. After 4-5 years free of seizures anticonvulsive treatment might be ceased.

CT applied at 40 cases, MRI only at 9 cases. All unilateral pathological CT findings 32 were located in the hemisphere correspondings to the hemiplegic side. Bilateral lesions were seen at 4 children. It was possible to correlate the morphological pattern of the CT findings with the severity of the neurological symptoms of the hemiplegic side. The different groups of CT findings with respect to clinical features. No significant correlation between size of the lesion and severity of motor and other neurological impairments within the morphological groups. Small lesions implied mild to moderate impairments, and large lesions moderate to severe impairments. Children in the group with normal CT findings were significantly less impaired. Left-sided cortical/subcortical atrophy and of a dominance of right-sided hemiplegia among cases with normal CT scans.

Cortical involvement to be significantly related to low IQ and seizures. Cerebral maldevelopments such as schizencephaly and pachygyria correlated with seizures. Epilepsy might influence the maturation of sensory integration. The maturation of corticospinal tract has been shown to reach adult values between 8 and 11 years of age, and central conduction time reaches adult values at the age of 10. Central myelinisation and role in the increase in central condition velocity. This congenital hemiparetic children's epilepsy syndromes most benign. Their seizures frequency associated with impaired motor performance. Epilepsy onset in the first 5 years of life and epilepsy duration of more then 5 years were the outstanding parameter for significant sensory and motor deficit. Severity of epilepsy did not correlate with location or extent of CT lesions. Cortical lesions on the MRI were associated with more severe hemiplegia and epilepsy. In patient with spastic hemiplegia the onset of epilepsy was of the delayed for several years. Most of the patients with spastic tetraplegia had their first seizure in the first years of life.

There was no difference in the intellectual performances between children with a left-and those with a rightsided cortical and subcortical cavity. No strict correlation between the size of the cortical lesion and the degree of intellectual impairment. There was no significant relationship of birth history to subsequent seizures development or mental retardation. In contrast, findings in electroencephalograms and CT scans correlated well with development of seizures and abnormal intelligence. Children who shored anatomical abnormalities of comissural pathways, or cerebral cortex were found to have a much higher incidence of seizures and abnormal intelligence.
Migration and organisation disorders like shizencephaly with fused lips, pachygyria and heterotopic grey matter may be other lesions possible to detect only with MRI, as this imaging modality provides a much better discrimination between grey and white matter than CT. It is our conclusion that objective information provided by imagine of the brain lesion, by using CT or MRI, should be used and considered as an important adjunct to clinical assessment of the injury causing hemiplegic CP.

CE of hemiplegic children carried out by parents and conductors can start in the earliest age. The preference of motivated prone position gives freedom to action for genetically determined laterality. The child will be able to choose to use the palsied extremities, under continuous complex and adaptive motivation. The body image requires continual maintenance by constant sampling of the environment. Development of the body image was followed by drawing tests and spontaneous drawing. It is not claimed that CE eliminates the underlying causes of lesioned neural organisation. The goal is not only to improve their motor function but also to foster self-reliance.
In January 1997, in the framework of a co-operation between the International Pető Institute, Ludwig-Maximilians-Universität Munich and Kinderzentrum Munich a two and a half year research programme was launched known as the Pető-Vojta-Model Project.

Eight groups of 8 to 10 children receiving conductive education in three four week courses were selected by the specialists of the Kinderzentrum Munich. In the control group which was also selected by the German professionals the Vojta method was applied. All participants of the programme were assessed according to the same psychological and biological aspects before and during the programme by Kinderzentrum professionals. Measurements referred to global movements and manipulation. The examinations were completed by a computerised biological test and psychological evaluations.

Participants of the conductive programme were accommodated 53 kilometres away from Munich in a hospital unit specially constructed for this purpose. All groups were working with 4 conductors in each. These groups functioned according to determined intervals. Between the intervals always the same interruption was to be held when the children did not receive either therapy or conductive education. This model was named conductive education model limited in time and duration.

The International Pető Institute has for long offered permanent and interval conductive education. This model allowed the observation of children's development achieved within only three courses.

An overview of the various forms of interval conductive education, their characteristic features and applicability will be given in the lecture. Detailed analysis of the results of the first three groups of participating in the Pető Vojta Model Project will be given in the second part of the lecture.
The conductive initial assessment has been in the centre of interest ever since conductive education method wide-spread in the world surely it raised number of questions dependent upon who looked at it and from what viewpoint. The most typical questions are "suitability and unsuitability, "does the conductive education select", "does the initial assessment necessary", "is it such a procedure which can be found only in the system of conductive education and not in any other methods", what sort of method are used in the assessment, who is the right person to carry out the assessment, etc.? There are some technical and some practical types as well.

The aim of this paper is to answer these question via introducing the development of initial assessment ("giving first advises") from the very beginning to the recent days. The matters in questions will be looked at alongside of the following aspects - who are the clients, the condition of the children, duration of the conductive educational programme, the knowledge of the expertise who carries out the procedure. The initial assessment is not a self-contained case but an essential elements of an educational system. The fact, that an assessment precedes the effective programme would not be a special characteristic of it. In other pedagogy or in medical science, et... we can find similar investigations or assessment systems and all of them put a kind of „assessment of needs“ into focus. Beside that the conductive education uses the information provided by the above mentioned science but it completes them with its own observations. Conductive education is a holistic approach and the assessment system must reflect this.

The personality is one as a whole an indivisible, continuously developing, structured unit in which every moment multiply related to other moments.

So far there is not exist a personality examination method which would be able to explore authoritatively the structure and the content of the whole personality.

The method of the recognition and examination will be chosen is always determined by the aims of the examination.

The personality is unified and indivisible so the activities are done by the man with its whole personality.

We look for and with the purpose of examination we separate the most important features, sections and dimensions of the personality from our aspects.

Up to 1988 most of the children were Hungarians and were directed by medical institutions, doctors, nurses to the Pető Institute (e.g. Dr Háry: A konduktív pedagógiai rendszere, NPI, BP., 1991.) At that time, the aim of the first assessment was to get the family know what conductive education is all about, giving advises what and how to teach to the child until a place is available for him/her at the institute. The procedure took about 1 hour. 1989, when conductive education explode in the world hundreds of families asked for help and was ready to travel to Budapest. Not only just those turned to the institute whose child had Cp., but any others with different diseases, syndromes, etc. That influenced the all system of the initial assessment on many way.
The aim of the assessment still was the same but because of the different needs raised by the given situation a couple new ones supplemented the originals. E.g.: to design an interval type of programme, to make the recommendation upon the dimensions of much wider aspects (the possibility of the families from every viewpoint, the previous treatment of the child, the age of the child, etc...) With these went together that the responsibility of the Institute got higher. The skills of the conductors - who carried out this procedures - had to be amplified and improved with speaking foreign languages, having wider aspects of different rehabilitation and educational methods, to know more about other cultures and parental attitudes.

In 1992 Pető UK was established. It was a new challenge again not just for conductive education but for the main components of the all system as well. To deal with the long waiting list of the applicants, using time most effectively and creating the groups and start the conductive education follow up programme were the targets. To achieve the mentioned aims a new form of assessment was worked out and denominated as "Arena assessment". The arena assessment takes a day.

The aims could be specified in every detail according to the improved form of the assessment. E.g.: to be able to introduce an assessment method what is reflect the philosophy of conductive education, to be able involve the parents in the process, to explore and recognise the child's needs as clearly and in as much depth as possible and to collect information so that the decision can be made as to the place of conductive education in a child's development.

It should be noted that we carry out an assessment not to find out if the child is appropriate for Conductive education but if Conductive education is appropriate for the child. The experiences of the last couple of years have brought up the need of a research which aims are to explore the options of the advantages an initial assessment for the interest of that a child with special needs could get the most appropriate form of rehabilitation in the proper time.
Concerning the aim to help developing problem solving in the conductive educational process to form a complex system of activities we not only need 'co-operative' disabled but at the same time such experts who, on one hand have adequate expertise and on the other, proper attitude.

The work of the conductor is varied and multifold. A conductor contributes to the fulfilment of the conductive programme by her proper skill of observation, safe and sure knowledge, her humanity and creativity.

One characteristic of the job of the conductor is that she works in a team, which is supported by her ability to collaborate and the capacity of adaptation. Among the important features of a conductor we can list the ability to form relationships and make connections easily, the ability to identify problems and to bear love towards children. Also, accuracy and co-operation is required, together with determination, goal-orientation and systematic planning in compiling the programmes. The programme contains free and guided activities, too, individual and group task, exercises of communication, observations according to a series of given viewpoints, the analysis and evaluation of the observations and the attached written tasks.

Developing the ability to form and shape relationships
A good conductor is able to start a relationship or establish connections, she is at home in the sign system of communication and of meta-communication. A conductor must be aware of the possibilities of motivating the children and she must know the different ways of maintaining their attention.

A conductor who possesses good communicative abilities has a positive influence on children. By applying appropriate communicative 'techniques' she promotes the children's better understanding of the learning situations. Meta-communication is equally important. It helps the indirect regulation of behavioural patterns and different ways of behaviour. The shaping of this ability is in the focus in the first year. The task at first for the trainees is to lead a smaller group of children and later, towards the end of the year they have to concentrate on guiding a whole group. Considering the different parts of the programme the participation in free-time and play activities is of primary importance.

The students are made familiar with the different communicational techniques, and the wilful and conscious application of non-verbal communication, too. At the same time they continuously analyse their experiences.

The development of the observational ability
By the help of the realistic and accurate observations we have the opportunity to continuously monitor the educational process, the improvement in the condition of the disabled children and also their achievements. This way we have an immediate recognition of problems but at the same time we have chances to handle and solve them. Our observations help us in planning concerning time, and also in organising the pace of activities for the individuals. The four-year training programme contains observations done concerning different observational viewpoints. The form of these can be continuous or single. The observations performed by the students can be free or guided. The students are taught how to record their
observations in writing, how to give the minutes of a meeting and how to put down data. The observations are followed by common or individual evaluations. In the process of the development of this skill gradualness can be seen. This means that at the beginning the students perform their observations according to given viewpoints touching a smaller, more concrete area, whilst the next step can be an observation in connection with a given topic, although still supervised by the lecturers but the viewpoints are determined by the students.

The students are independent in evaluating the observations made by their mates. The quantity of the written observations gradually expand, too. At the beginning it means only a one-page description, to put down data. Later the focus will shift onto the evaluation of the multifold observation and also to get them make their own conclusions independently.

Besides, during their four-year training the students write various tests. The aim of this is to prepare the students to write their thesis at the end of their studies on a high level.

**The ability to co-operate**

During their practical work the students perform such tasks which suppose the knowledge of the duties and tasks of other students and conductors in the educational process. One of the very definite tasks is to learn to direct the work of the assisting conductors, and also to think the organisational duties over. For the situational exercise performed at the end of the first year 3-4 students prepare together. Concerning the school activities, the trainees prepare for these in pairs.

**Pedagogical awareness, decision-making.**

This ability defines the personality of a conductor. If we accept the theory that during the educational process we always start from the given and existing skills, but always take the actual achievements into consideration, then the terms “differentiating” and the “necessity for immediate changes” at once become unambiguous in conductive education.

With the help of their material knowledge the students transmit difficult things in an easy way for the disabled, and they make these understandable and executable for them.

**Organisational and planning skills**

The conductive programme is a learning process for the disabled, so for this reason the conductor must have a fair knowledge of the latest educational methodology and the specified facilitation methods concerning individuals. In a conductive group we may find children having different kinds of dysfunction, who may possess totally different level skills. For achieving the overall aims it is indispensable for the students to be aware of the possibilities of direct and indirect differentiation.

The conductive programme is varied and complex. During their practical training, the students are given different tasks, during which they can experience how to organise a group and how to plan the activities. At the beginning the aim for them is to organise activities of the same kind for a smaller group of children, and as years proceed the number of children concerned grows and the number of activities, too. Their tasks in the third year is to organise a three-hour programme.

Conductive education is a complex system of
activities, not only for the disabled but also for the conductors, too. The first year has a double aim and function. On the one hand the student's suitability for the profession must be decided on, and on the other hand we have to bring the students' conductor-teacher abilities and skills to the surface.

When we prepare the programme for the first year we take the following viewpoints into consideration: What are the specific features of suitability for the profession? What are the requirements the students have to meet during their four-year training? When working out the tasks and activities of the students it is important that the theoretical knowledge be applied in the practical work. For the planning process we can use the knowledge and information of general pedagogy, of psychology, biology, symptomatology and of conductive pedagogy as bases.

We put the measure high, which is primarily not for selecting the students this way, but to develop the 'conductive' skills and abilities of the students, also to establish a professional safety and to motivate them for their future profession and also for studying.

The direction of the practice work realises on various levels. Firstly, they are real members of a conductive group, but occasionally, from time to time they gain insight into the life of other groups. The leading conductor who is responsible for the students' practice pays continuous attention that the students' experiences are understood completely and if they are conscious about them, and that their gained experiences could be connected to their existing knowledge. It is important that their concrete, defined information gained during their independent learning be attached and connected to their general conclusions. It is certainly among our aims that the students be able to draw their own, independent conclusions, and also their method of learning be developed.

The aim of the practical training is that our students get to know the mutual effects of general and conductive pedagogical theory and practice through experience and at the same time they prepare for their future profession. They get to know the creative way to solve educational tasks.

It is the characteristic of the training that the direct experience of pedagogical impacts, influences and conflicts are the starting points of pedagogical recognition, and of becoming a conductor.
The principles of Conductive Education (CE) have been implemented in the preschool and school services of the Spastics Association for more than two decades. More recently, it has been extended to the adult service for cerebral palsy and elderly service for stroke, Parkinson's disease and dementia. The major problem of patients with brain damage is the problem of learning. Learning is a process of active discovery that is geared to the biological equipment of a person. The cause of dysfunction of the brain damaged lies in the loss of underlying abilities making them unable to learn from interactions with the environment. The CE system for the adult and elderly clients is founded on three lines of development, namely: biological, social and cultural with the latter two built upon the first. It is believed that the parallel exploitation in the social and cultural paths under a supportive environment, in turn, contributes to the spontaneous development of the clients' biological capabilities.

The ultimate aim of habilitation for adults with cerebral palsy is upward mobility to an independent life, enabling them to integrate, as far as possible, into the community at each stage of the upward movement. On the other hand, the rehabilitative aim for the elderly with acquired disability is to improve their quality of life and allowing them to age with dignity.

The traditional medical approach puts a high priority on the enhancement of the clients' biological equipment, divided into different areas, each being tackled by different specialists. In addition to the fragmentation of clients, direct enhancement of biological capabilities in the medical approach may detach them from their social and cultural environments. By spending most of the time on receiving treatment by different specialists, the patients become more and more out of step with the society.

Due to the absence of qualified conductors in our re-/habilitative system, the programmes built on the principles of CE are delivered by a transdisciplinary team that provides a holistic model of training in a structured environment so as to “lead out” the underlying abilities of the brain damaged for ensuring self-directed learning. The Petö's Concept serves as a common philosophy that is shared by different disciplines of staff irrespective of their professional background. It provides a common perspective from which training goals are established. The training activities are no longer delivered with respect to the professional background of staff (e.g. physiotherapy, occupational therapy, etc). Instead, they are incorporated into the clients’ life. For adults with cerebral palsy, we emphasise the training activities for work, self-care and leisure domains while for the elderly, only the latter two domains are involved.

Consistency and continuity in the training activities throughout the whole of the clients’ day is realised either by the rotation of professional staff between the day and residential centres or by regular meetings with family members. The whole day management of clients constitutes the transverse subsystem of the CE system.

In the adult service for cerebral palsy, a longitudinal CE system has been established. It comprises vocational, residential and recreational routes. Each route is composed of centres with different levels of