

## **Breathing and Remedial Education**

### **(part 1)**

**An Investigation how to use breathing in an educational context, bringing Rudolf Steiner's ideas into practice through a project**

### **(Part 2)**

**An Investigation how to use breathing in an educational context, connecting the project based on Steiner's ideas with other more recent literature**

J.C Eikenboom

E-mail adres:

Student Registration Number: 398836

University of Plymouth Faculty of Education

European Masters Programme (2962) Academic year 2007-08

Integrated Masters Programme Special Educational Needs

Assessment modes: Developing Practice Through a Project

Critical Review of a Body of Knowledge

9506 words

Februari 2008

## **Breathing and Remedial Education (part 1)**

### **An Investigation how to use breathing in an educational context, bringing Rudolf Steiner's ideas into practice through a project**

#### **Introduction**

Steiner's idea that it the most important measures in education will consist in paying attention to all that rightly organises the breathing process into the nerve-sense process (Steiner, 2001), has always been for me an indication to focus on while I was working as an educational support teacher and also as a class teacher.

Speaking of breathing one will immediately associate this with the bodily function of the lungs, where oxygen and carbon dioxide are exchanged. Steiner's picture of breathing however is broader than just focussing on only these bodily functions. In the human body a threefold structure can be observed: the head, the chest and the limbs. This threefold structure is, according Steiner, related to the three functions of the human psyche: thinking, feeling, and willing (Steiner, 2001). The head is where the sensory organization of the nervous system culminates in the consciousnesses associated with the brain. Here the human being is awake in his thinking activity. The chest protects as a bony structure the lungs and the heart, which are the seat of our breathing and circulatory systems. Serious self observation will reveal that with every emotion the rhythm of the heartbeat and the breathing are effected. These rhythmical systems are the centre where our feeling life finds its bodily representative. With the limbs the human being is able to act and express himself into the world around him. The limbs enable him to move and be productive, and the metabolic system sustains the body so we do not faint from hunger, and our limbs will no longer be able to follow our intentions, our will (Bühler, 1983).

Of course these three areas form a unity, and are strongly interlinked. That the intake of oxygen is important for the proper functioning of the digestive processes of the metabolic system may be assumed to be well known. Steiner however pointed out that extra to that, the rhythm of the breathing system influences the activity of the brain and nervous system by means of the movement of the cerebro-spinal fluid. In Steiner told the Waldorf teachers that in education one must also pay attention to all that establishes a proper connection between breathing and nerve-sense process (Steiner, 2001). In his view of development the bodily breathing process plays an most important role in the progressive integration of the psyche and the soma, i.e. of the soul organization and the body. The rhythmical functions however

are not just connected with this immense general idea of the human incarnating into his body. In a more practical view we will notice that the alternation between waking and sleeping, laughing and weeping, be to alert and to relaxed, to be active or passive, to be engaged or not concentrated, to speak and to listen, to remember and to forget, is rhythmical process in detail connected with breathing activity. (Vogel 1979)

One can learn to see even in the subtle processing of the sense impressions what important role the a rhythmical activity - as a kind of breathing - is playing in 'digesting' the sense impressions. An improper rhythmical activity within the sensory system would be in cases when there is no alternation between concentration and relaxation, which could lead to situations where children will be diagnosed as either hyper active or the opposite. Retained immature movement development, connected with certain early neurologic developmental stages (Goddard Blythe 2005), will possibly allow primitive neurological functions to predominate so that a state of being alert will make it more difficult 'to digest' sensory input. Steiner also pointed at the rhythmical function of the breathing system as the seat of the understanding of sensory information (Steiner 2003). He said that all processes that are taking place in the nervous system and brain are only connected with perception. The understanding of what we perceive - when outer sense impressions find their connection with the inner life of the human psyche, with the feeling life - however is connected with the rhythmical functions of the body. And according Steiner, the memory imprint is in the bodily areas where subtle metabolic processes are located.

Can Steiner's concepts be made available in a concrete pedagogical situation through a project in connection with a reflection on related literature?

On one of my visits to Waldorf schools in Spain colleagues asked for some advise: The school had classes going from Kindergarten, through primary school and up to the secondary school grade 10. Waldorf schools normally have the grades 1 to 12, and the school was planning to have their grade 10 continue and become there first 11<sup>th</sup> grade and then grade 12. There was however one problem, the students of this grade 10, aged 15 years, for different reasons were not the best representatives of a successful Waldorf education. The group itself had quite a history and their learning habits and concentration were matters of concern to the teachers. What could the teachers do to improve this situation? Much was depending on the success of this first group of students going up to grade 12 in Waldorf education. The teachers wanted not simply to address the problem by giving these students extra coaching for the

different subjects they needed to work on. They were also looking for something that would have an effect on a overall and more profound level.

We discussed a project which would address the problem from two sides, from an outer and an inner aspect. The idea was not to address specifically the intellectual problems, but to work more on deeper aspects that would support the learning process in general, such as concentration, motivation, and behaviour. The group of students would work on movement and positional exercises (the outer aspect) that especially would involve the breathing, and the effect of these sessions would be enlarged and supported by painting exercises (the inner aspect).

In the mean time colleagues in Brazil heard about the Spanish project and - after consulting me - they decided to work out a similar project for two groups of children from one of the Favela slums in the city. They however worked with two groups of younger children, one group of children under the age of 10, the other group were children of 12 years old. They also decided to do movement exercises and ending the sessions with painting. I was very lucky to be able to visit Brazil and sit in during one of the sessions at the Favela's community centre.

In my school in The Netherlands I was working with some individual children following a program based on similar principles. I hoped to be able to show that the movement exercises in combination with painting exercises work deeply the general constitution of the children, including their learning behaviour.

To find a more scientific basis for our project, involving the pedagogical practice of a school (in Spain), a group of devoted therapists and educational support teachers (in Brazil), and the need of individual children (in The Netherlands) literature was studied. The result of this review of a body of knowledge will be presented in the second part of this double linked assignment (see part 2).

### **Theory underpinning the movement exercises in combination with painting**

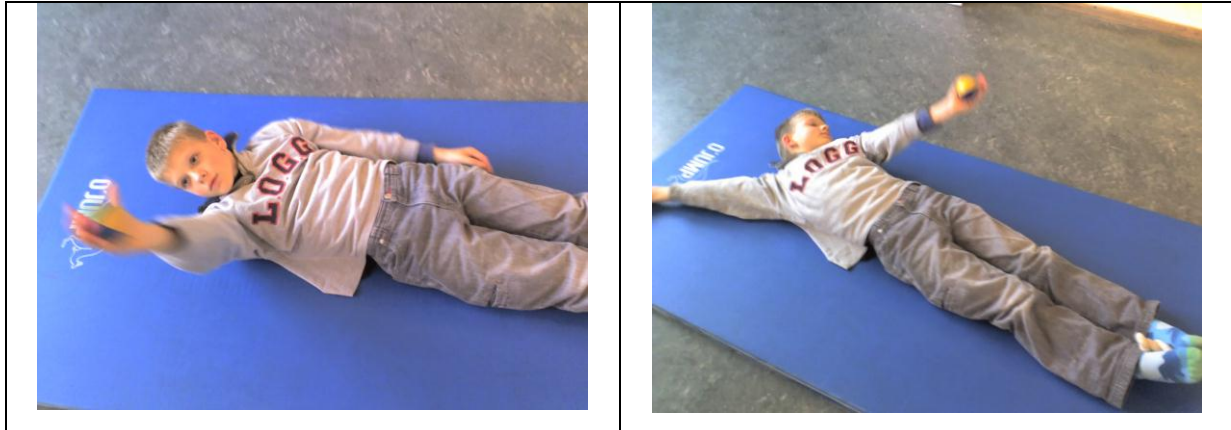
For this project we choose to combine movement and positional exercises with painting exercises. (Eikenboom, 2007a) It is important to comprehend the difference between the physical movement exercises and the painting exercises. Doing movement exercises, the body needs to be lifted out of gravity. Therefore the will needs to penetrate the physical system of the body. That is how mental forces of the soul-spirit penetrates mater. One will experience weight, the pulling of gravity. The movement activity is in accordance with the mechanical laws of physics: There is no essential difference between lifting an arm or a leg, and hoisting

with a block and tackle; the same physical and mechanical laws are involved. The spiritual and supersensible organization of the human being is connecting itself with these mechanical laws, as it were by plunging into them (Steiner, 1986, p. 30). This applies to all physical activities such as walking, jogging, gymnastics, sports, and all other movement activities. Painting is a creative process in which the human being expresses himself. Simply the word 'expression' already indicates that something within the human nature is expressed into the outer world. The specific painting technique, using water colour paint and damp paper we are able to connect the psychological aspect of the human being with the body. The different colours have a specific effect: Red activates, draws together, in contrast to blue that expands, relaxes and calms down. In painting we are working with the inner creative laws of colour, in the movement exercises we are working with mechanical laws of physics, of the outer world.

When using these painting exercises we always also pay attention to the student's breathing rhythm. Therefore the painting exercises we choose for this project all start with covering the paper with a wash of paint, simply working from left to right in long strokes. This simple technique does not really involve the student's artistic qualities; that is not the intention. The quiet movement of the arm and hand holding the brush gives calm to the breathing. To further concentrate I also like to teach the children that "Their eyes should lovingly follow the hand", so that a proper eye hand coordination will be practiced. Colleagues report that they see more and more children with poor eye hand coordination, so this is what we nowadays very much need to teach our pupils – proper eye-hand coordination. With this technique of painting long strokes there is no nervously brushing to and fro and across the paper, the eyes watch the movements of the hand and brush; the hand and arm move quietly from left to right, and with that the ribcage expands and contracts in time with these movements. This will effect the influence of the breathing system onto the general constitutional situation of the body of the student.

### **The movement and positional exercises**

The different exercises we chose were developed by a Waldorf teacher from England Audrey McAllen (McAllen 2004a) and by an occupational therapist from Germany Doris Bartel (Bartel 2005). Using the exercises during my activities as a remedial teacher I experienced that they have positive effect on the inner awareness of body space, on eventual retardation of the movement system's development, and neurological development, and with that establish also harmonization of the breathing.



Copper Ball Exercise (The Netherlands)

Analyzing the arm movements in the *Copper Ball Exercise* (McAllen 2004a, 122-125) one can recognize the rhythmic alternating movements of the radius and ulna of the lower arm. The development of the fine motor movements starts with this turning of the lower arm, so that the hands can turn the palms upward. In the early days of development of the young child the head movements are strongly influencing the movements of the limbs: The early movements patterns of primitive reflexes and positional responses. Early movement patterns need to be integrated, inhibited and controlled to allow more mature patterns to develop in their place. The movements *Copper Ball Exercise* are based on these early movement patterns of the young child, to allow this maturation.

The newborn baby has its arms and legs curled up. What a joy it is when it can raise its head. Arms and legs will stretch out when the head is lifted, caused by the *tonic labyrinthine reflex* (TLR). Turning the head to the left or the right, or moving the head up or down will cause an extension or flexion of the limbs(Goddard 2005).

In this way the *asymmetrical tonic neck reflex* (ATNR) divides the body into left and right. The head will turn to one side of the body. On that side of the body the limbs will flex while on the other side they will extend. The *tonic labyrinthine reflex* (TLR) divides the body into front and back. The *symmetrical tonic neck reflex* (STNR) divides the body in above and below. We see here the three-dimensional aspects of the physical body itself: above-below (TLR), front-back (STNR), left-right (ATNR). The spirit-soul of the developing human being must integrate these physical elements and transform the body into a suitable instrument for his life on earth.

“At birth a baby has no control over voluntary movement. The baby responds to environmental stimuli through the primitive reflexes which are automatic stereotyped responses.” (Godard – INPP)

Primitive reflexes form a basis for many aspects of later functioning. During the first six months of life the central nervous system begins to mature. Higher regions of the brain begin to supersede the primitive reflexes. The early patterns are inhibited or controlled so that more mature patterns of response (postural reflexes) will be allowed to develop.

With the series of *Rotation Exercises* (Bartel 2005) the students are less active than in McAllen’s *Copper Ball Exercise*. With the *Rotation Exercises* the students lie down for some minutes in specific positions in which primitive reflexes are in no way fixated in the body. These exercises address the threefold structural aspect of the human physical body: The nerves, skeleton and muscles. This begins in the muscles first, when students are in the positions described, the stretching of the muscle system. Stretching of the muscles is the principle behind the movement development of the first year of the child’s development. (McAllen 2004a) However after some minutes the muscles will start to relax. The stretching of the muscles will activate metabolic processes through which waste products are removed from the muscles, such as lactic acid, which can build up during vigorous activity. This reduces the tendency for muscle spasm or cramping caused by the improper or immature movement patterns, known as primitive and postural reflexes. Children that have too little muscle tone will not need the relaxation brought about by these exercises. During the period of time one works with the exercises a proper muscle tone will develop. Experience has shown us that these children with a low muscle tone need longer periods of remedial work. The exercises build on proper basic muscle tone.

The effect on the skeleton is seen in the second of this series of exercises, when the spinal column is brought into rotation. Rotating the spinal column strengthens the development of dominance. The vertical midline is crossed whilst in a lying position. The muscles crossing the chest become stretched and activated.

The cerebrospinal fluid, within the membrane that covers the brain, and the spinal nerves down to the sacrum, are brought into circulation. During the first exercise (Eiffel tower) this membrane is stretched a little. The nervous system is effected by the body positions in this series of exercises in such way, that the body (head, trunk, and limbs) are never put in a position of any early movement pattern.

In my opinion in this series of *Rotation Exercises* the breathing is the most healing element. The breathing forms the connection between the physical bodily component of the human being and the spiritual and psychological element. Amongst all the relationships which the human being has to the external world, the most important of all is breathing. We have to educate this element of breathing, so as to give the breathing its right harmony.

(Steiner 2001 p. 25)

## Spain

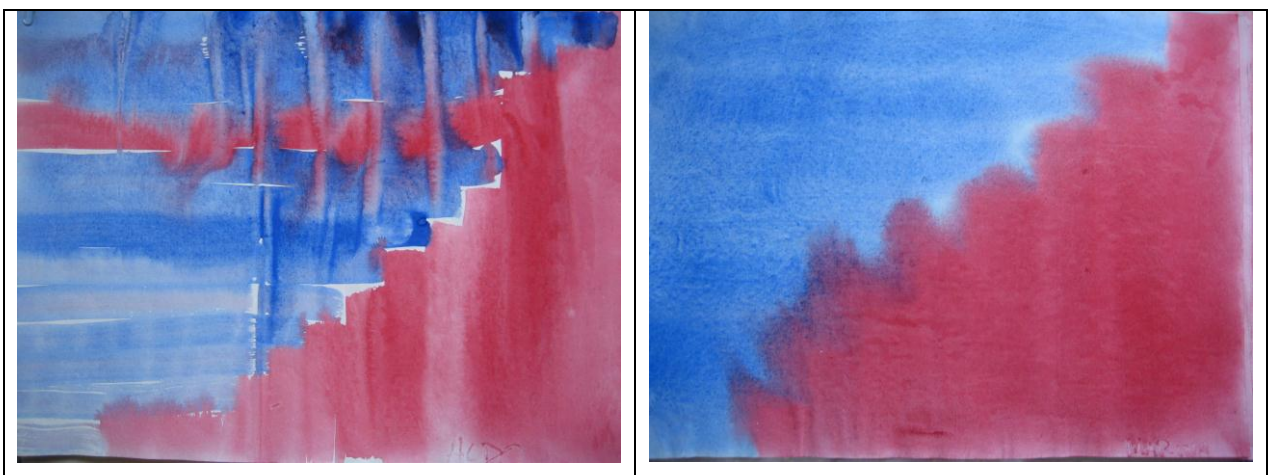
As mentioned in the introduction the teachers of the school in Spain were worried about the academic level of these students. Many of them had difficulties in picking up intellectual concepts, as in mathematics, there were memory problems, and concentration problems. In stead of focussing on the intellectual aspects of learning we discussed the possibility of working with exercises that addressed the breathing, and at the same time could help some of the students with movement problems, or with unattended elements from earlier developmental stages, such as retained reflex patterns.

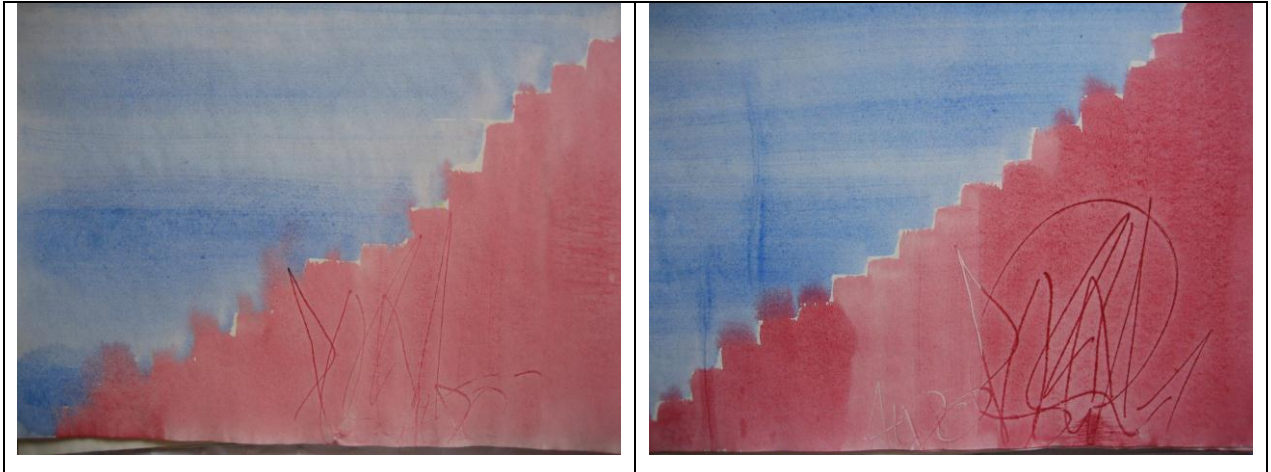
We decided to work with the students all the year, with exercises for each term, once a week 45 minutes – more or less, 12 weeks in each term. The first semester started with the *Rotation Exercises*. The sessions were ended with paintings of the *Moral Colour Painting series* (McAllen 2004b : 49-64). These sessions were led by the educational support teacher of the school.

We soon realized that working with this age group was therefore so nice, because these youngsters were able to verbalize what they were experiencing. With younger children this is more difficult, and pedagogically it is better not to ask judgements from them too early.

The second term the educational support teacher went over to other exercises. We did twelve sessions of the exercise of the *Copper Ball Exercise*, followed by the *Moving Straight Line and Lemniscate Exercise* (McAllen 2004a:147).

The third term the group worked with the *Ball Twirling Exercise* (McAllen 2004a:125) followed by the *Blue-Red Perspective Painting Exercise* (McAllen 2004a:168). During these sessions the other half of the group had math lesson at the same time.





Examples of the Blue Red Perspective exercise made during the first term

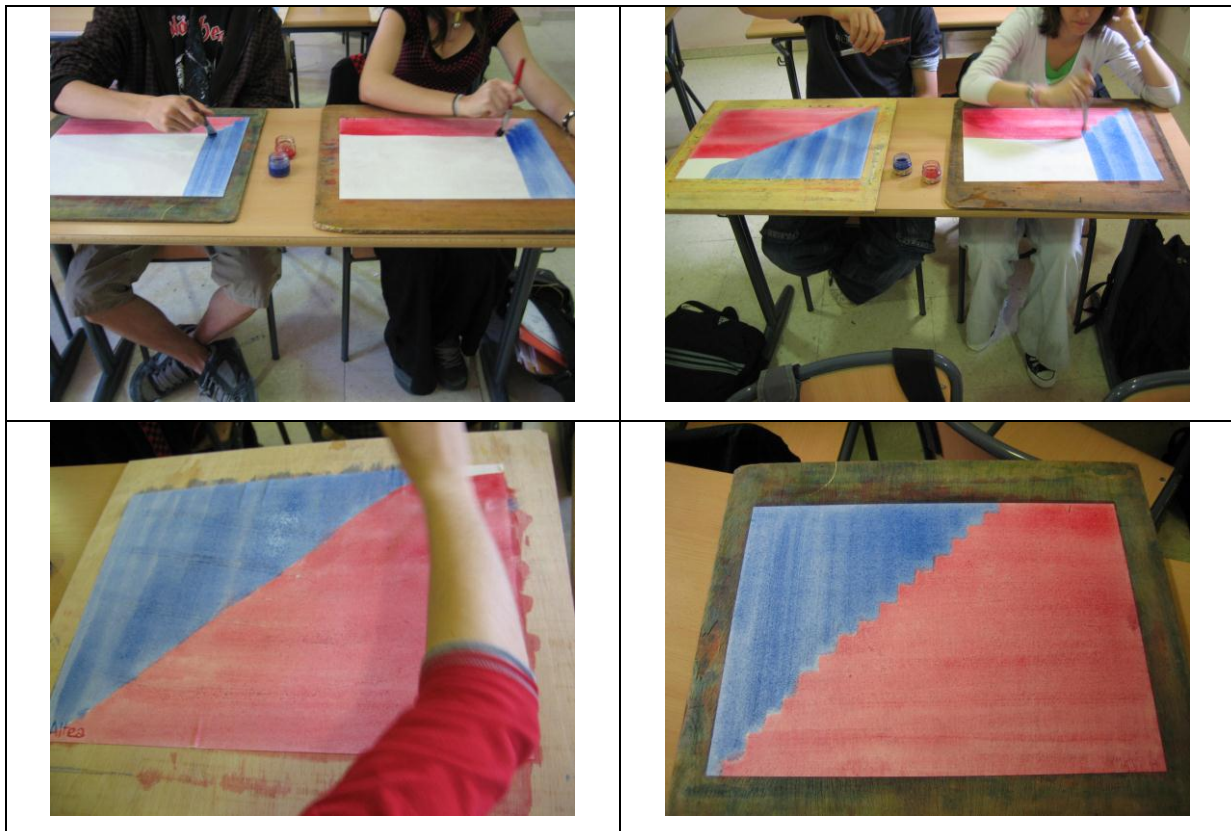
In the review at the end of the term, some of the opinions were:

- “In the beginning I was cooperative, but with too much haste. I was confused all the time. I knew that when I continued doing the things the way I was used to, I would not improve. So I decided to try to do better. That decision gave me much force and I felt good. I could do it, because I wanted to. From that moment on I was concentrating on doing it well. And I could, and I felt very good about myself.” (With this student the changes were very remarkable. He began to be really present, as if many layers had been taken off him.)
- “ In the beginning I did not care how I did the exercise. I only wanted to finish it as quickly as possible. But when you (to the teacher) put yourself in front of me and you asked me to do it right. Then, when I did so, I felt really comfortable. To do it made me feel well and feel comfortable with myself.”

In the review at the end of the second term some of the opinions were:

- “These have been the best 15 minutes of all the week”. (Students with very many early childhood movement patterns and other difficulties)
- “It did not cost me any trouble to do the exercises and I went home very, very relaxed. I arrived home as if I was floating: loose and relaxed.”
- “It cost me much to breathe and to loosen. I have tried it, but I didn’t obtain it totally.”

The third term the teachers chose to work with the *Copper Ball Exercise* and the *Moving Straight Line and Lemniscate*. When the teachers arrived in the building, the students already had cleared the classroom and they were ready to begin and start doing the exercises.



10<sup>th</sup> Grade students doing the Red-Blue Perspective painting exercise

After working with the students of grade 10 with the programme through the whole school year, and after the summer break the teachers decided to continue giving the now 11<sup>th</sup> grade students the Rotation Exercises in the following order: Eiffel Tower, Corkscrew, Eiffel Tower. In November 2007 (after about 2 months) at the end of one of the sessions the teachers asked the students once more to write down their experiences with the exercises, what they had observed and how they felt before and after the exercises. The students liked the work in general. They welcomed this activities with great joy since the work at school is demanding and these exercises allowed them “to breathe out”. Although these sessions were done as a follow-up of our project described in this paper, I think it is quite informative to learn from the comments of these 15 – 16 year old youngsters. Their contributions translated from the Spanish will be included in the Appendix.

## **Brazil**

The group of colleagues in Brazil had heard of our work in Spain. They wanted to research the project and find out if there was a possibility of working with groups of children within a rather short period of time. This group was formed by one educational support teacher, a speech therapist, a physiotherapist/occupational therapist, and two art therapists. All five had been participants of the Waldorf Educational Support Training Program (Formação em Recursos Especiais em Pedagogia Waldorf).

Diagnostic drawings of the *Person House and Tree* (PHT-drawing) and the *Eye-Colour-Affinity* (blue moon/red sun – McAllen 2004a) were taken before and after the project.

Luckily I had the possibility to visit these colleagues, and join in during one of the sessions at the Favela's community centre. It was a great experience to see the work be done at a so far distance. One could really experience that Waldorf education is a world movement.

The group of children under 10 years of age were offered the *Rotation Exercises*, and some other movement exercises. As painting exercises they were offered the *Yellow Sun in the Blue Sky* (McAllen 2004a:160 )

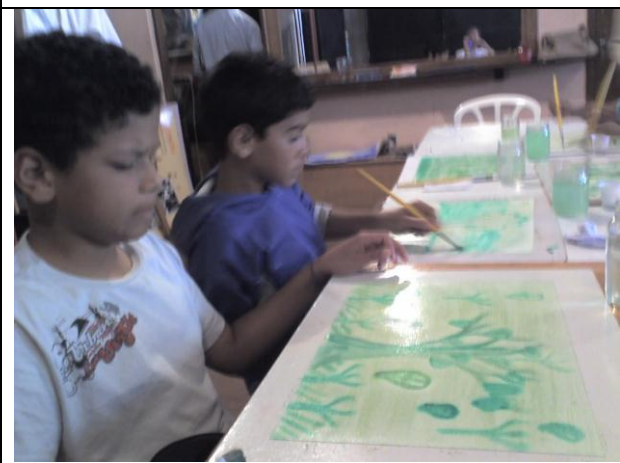
The group of children over 10 years had the same program of movement exercises and painted the series of *Moral Colour Paintings*.

The question was where to find room to work with a group of children. With the kind cooperation of the Community the colleagues could use the amphitheatre of the Community Centre. This amphitheatre is used for dance, plays, and all sort of other activities that are organized for the people living within the community of the Favela. The room could be divided into two parts. In the front section, which is a sort of foyer, were prepared the tables for the painting. The floor of the actual amphitheatre was used for the movement and rotation exercises.

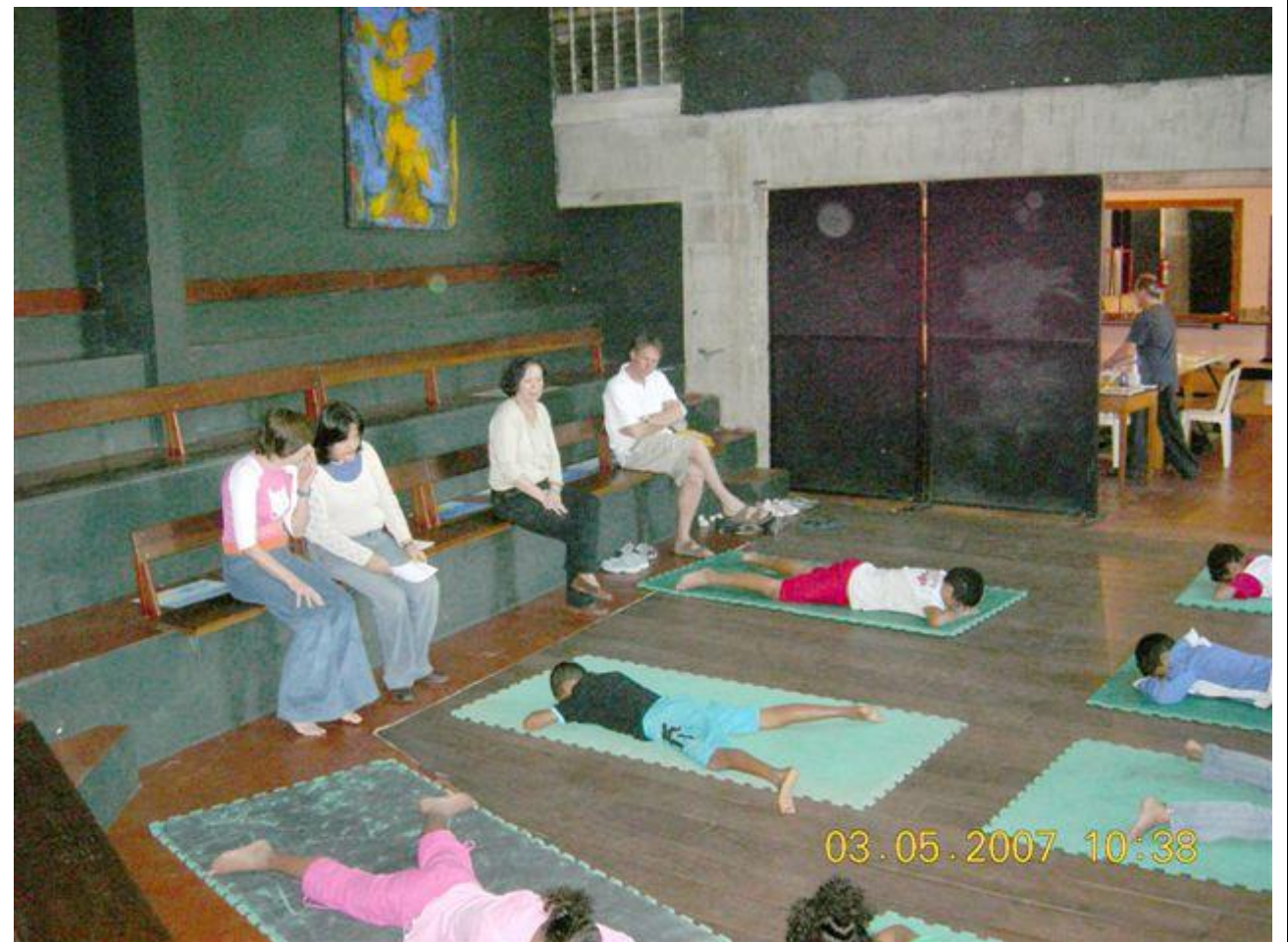
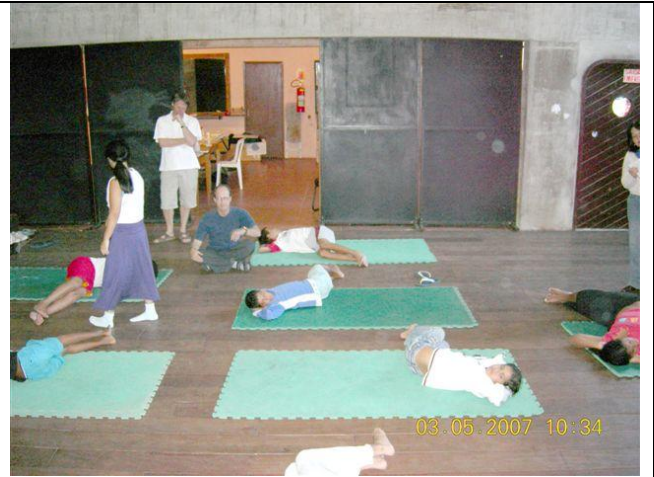
### **Results – Colleagues mentoring the group reported:**

Of the eleven sessions, more 3 sessions of evaluation and a meeting with the doctor, teacher and parents, had verified the following results: Improvement in the notion of corporal image. Development of the relation of the body with the spatial dimensions and organization of the direction of the movement of the vision, leading to the acquisition of space slight knowledge. Increment of the auditory processing, of the direction of the balance and the vitality, for the harmonization of the breath, especially in the children who presented problems as bronchitis, and asthma. Improvement of self esteem, of the relation, participation and integration in the group.

One of the colleagues from Brazil reported spontaneous in an E-mail (see Appendix) reporting: “We did new assessments on drawings and saw some good and interesting changes.”



Children working with Rotation Exercises and Paining (Brazil)



Eiffel Tower exercise

## The Netherlands

Being a class teacher, I decided to work with some individual children that were having painting therapy at the anthroposophical health centre. Before and after the program we used the diagnostic *Painting of a Person with Green and Red*. The idea for this painting was passed on to me by Lianne Collot d'Herbois, the initiator of the anthroposophical painting therapy. As stated earlier in this paper, the work with watercolour paint calls on the expression of the human inner situation. According to Collot's indications this diagnostic painting gives an impression of the inner awareness of the constitutional bodily situation (Eikenboom 2007 a). Through my experience working as a remedial teacher confirm these indications. The illustrations used below will also give an impression of that.

In school I worked with the first boy, a second grader, aged 8 yrs, doing just the *Rotation Exercises* once a week for 2 months. This pupil was having painting therapy once a week. The boy's first painting (left) shows us the inner awareness the child has of his own body: a large head with no face. The trunk in green is out of balance, and from the waist down to the lower limbs the structure of the body disappears into the surrounding red.

The second painting (right) shows an improvement in the facial expression, and lower limbs. Although there is still not an ideal three folded picture of a person (with head, chest, and lower trunk plus legs) the overall structure is much more clear and separated from the surroundings.



The diagnostic drawing of a Person, a House and a Tree was discussed in an earlier assignment (Eikenboom, 2007b). Here follow three PHT drawings, plus details of the trees as representatives of the activity of the breathing onto the formation of the brain and nervous system. Hopefully the tendency that the trees in sequence are getting more and more structure is a picture of what is actually happening in structure of the boy's nervous system.



Spatial orientation has improved – no birds eye perspective



Finer structure of the branches. The tree in the middle carries apples, an archetypal image for the developmental stage at the end of kindergarten, age 6

The second boy is a 5<sup>th</sup> grader, age 11,5 yrs. He did the Rotation Exercises for homework in the evenings, for 3 months - five times a week, with the help of the parents.

Then I worked for 1 month daily intensively 30 minutes after school time. We did movement exercises, drawing and writing exercises, exercises with a copper rod, exercises to establish dominance, and the *Copper Ball + Moving Straight Line and Lemniscate*. (McAllen 2004a)

At the beginning at the end of this period of work the boy was asked to make a diagnostic *painting of the Person in Green and Red*. (Eikenboom 2007a)



Diagnostic painting of a person in green and red

His first painting (left) shows signs possibly indicating the muscle tension and bad differentiation between the movement system of the arms and the legs (the diagonal lines across the trunk into the right leg). The boy used to pull up his shoulders while moving, due to early childhood movement patterns, which were worked at with the different exercises. This painting was produced a year before we started our project. The boy was 10 years old and a grade 4 student. The legs in the V-shape in drawings seem to often indicate vestibular problems.

The second painting (middle) was done a year later, after I had sent the boy to the Craniosacral osteopath for a treatment. The reasons for this were my observations of the boy while moving, the strangely shaped shoulders in the painting, plus the missing of the top of the head. In my experience when children do not have enough room on the paper to paint the full shape of a head, this might be a sign for pressure of damage of the skull. On the other

paintings one can observe the shape of the head is more and more becoming free, although not yet completely.

After the Craniosacral Therapy this boy started working with the Rotation Exercises, with the cooperation of the parents. The second painting shows still trouble in the realm of the neck, mixed colours where head and trunk meet. The overall body control, working from the head into the body, could still be blocked, not by a structural problem in the skeleton, but by immature movement patterns, still present. In brief: these are movement patterns of the head influencing the movements of the lower body, i.e. the trunk, and mainly the arms, sometimes also the legs. In the middle picture the person is painted with a largely shaped mouth. This is often seen in drawings and paintings of children that move their lips and lower jaw when moving with hands and arms. These are also immature patterns in the movement system of the muscles and the coordinating nervous system.

The third painting was done after our project of one month's work, as described above. There is improvement, although it is not yet perfect, but progress was pleasing. The head has come off the top rim of the paper, and hair is indicated. The facial expression has improved, indicating that the body awareness of the facial muscles has become better. It looks like a happy face with a laugh. The shape of the trunk is still circular, like a five year old child would draw it. It is more in balance than the ones made earlier. Although the shape of the hand and fingers is not distinct, the wrists are not painted with mixing colours. Head, trunk and legs are painted in clear colours.

Here follow his two PHT drawings, plus the drawing of the tree. Also here we see much improvement in the way the tree was shaped. The specific effect of the Craniosacral therapy sessions on the whole bodily situation of these students could not be separated out. In our diagnostic drawings and paintings this therapy appeared to be more than necessary, therefore I could not wait to inform the parents about this necessity until after the project, just for reasons of research. The all over well being of the students and children one is working with, is in my opinion to be the most import.



In the second drawing made after the project the crown of tree has appeared. On the first drawing the branches on the sides of the truck represent the nerves running from the spine. The crown on both trees in the second drawing can be seen as the growing activity of cerebellum. Also the representation of the body awareness (the person) has improved.



The tree now has a crown on top of the trunk

## **Conclusion**

With this project I have tried to show ways how to work with exercises that address the element of breathing in such way that this effects the pedagogical and developmental work with students and children in a positive way.

In their comments the students in Spain reported that - some after having feelings of scepticism at the start of the project - they experienced that they were more relaxed and also more concentrated.

In Brazil the parents and the medical doctor involved reported an improvement in the awareness of the body image, dimensions orientation, movement of the vision, improved auditory processing, balance and all over vitality, especially in the children with bronchitis, and asthma by the harmonization of the breath. Also was reported an improvement of self esteem, of the social relations, as participation and integration in the group.

In the Dutch project the use of the diagnostic drawings and paintings suggest improvement of the neurological developmental situation, of the coordination of the muscles and movement system, and the all over body awareness and body control.

## **Breathing and Remedial Education (Part 2)**

### **An Investigation how to use breathing in an educational context, connecting the project based on Steiner's ideas with other more recent literature**

For the project, trying to confirm experiences, research, and ideas, I started collecting and studying literature about educational support teaching, and special education; I tried to connect the material from neuro-physiological psychology, neuro-psychology, and orthopedagogy (Special Educational Needs) sources with the ideas I had developed, and the exercises used regarding Steiner's indications. I first would like to put my project and study of literature in a historical context.

Back in the second half of the seventies of the last century, when I did my teacher's training the word 'remedial teaching' was new in the educator's vocabulary. Until then the basic ideas about education (in The Netherlands and on the European continent) came from philosophical and psychological theories, which threw light on the process of learning. Education on the European continent was strongly influenced by the Middle European psychologist. Freud (1856-1939), Adler (1870-1937), Jung (1875-1965), and others who developed their theories in the geographical and cultural environment of the Austrian-Hungarian and the German empires. Renewal in the realm of education by people like Peter Peterson (Jena Plan), Célestin Freinet (Modern School Movement), and also Rudolf Steiner (Waldorf School) were also based on philosophical insights into the human soul. The questions were: How can children and students be motivated to learn? Does abstract intelligential thinking give the best learning results with young children? Also Maria Montessori (Montessori Schools), although she was a medical doctor, who was devotedly working in the slums of Rome, wanted the individual child to find its own curriculum. She discovered how eager young children were to learn. (Voeten 2007). Like Rudolf Steiner in the beginning of his teachings, Maria Montessori was also a member of the Theosophical Society (Coulter 1990).

Steiner was very outspoken against the influence of materialistic pedagogical ideas coming from the Anglo-Saxon regions, as for instance the ideas of Herbert Spencer. Spencer is best known for coining the term *survival of the fittest*, which he did in his book 'Principles of Biology' that was published in 1864, after he had read [Charles Darwin's 'The Origin of Species'](#). This term strongly suggests [natural selection](#). Didactics and methods of education,

according to Steiner, should be based on a deeper spiritual insights into the human psyche, the human soul. (Steiner)

In his lectures on education Steiner very often relates psychological functions to bodily processes. It probably is well known that he related the three functions of the human soul, thinking, feeling and willing, to bodily systems: nervous system / brain (thinking), rhythmical systems of breathing and pulsation of the blood (feeling), and metabolic system and the movement system of the limbs (willing). (Steiner 2002) Steiner also recommended exercising fine finger movements, for instance by learning how to knit, to improve the child's skills in mathematics. Nowadays one is aware that fine motor skills are connected with the fine structures of the cortex. (Greenfield 1997).

As early as 1909 Rudolf Steiner spoke of sense organs that are perceiving human's own body. He described the possibility of perceiving one's own movements and one's bodily position in space, nowadays are known as the senses for proprioception (Steiner, 1980a, p. 28). Earlier than that, in 1906 – 1907, Steiner had lectured on education. His insights were published in a small booklet in 1907 (Steiner 1965). Already then he stressed the idea that the child's development in the first seven years is immensely important. In these years the child brings the physical body, which is shaped and influenced by the senses, to a certain level of maturity. Steiner's view receives support from a Dutch professor of Neuropsychology & Biological Psychology Jelle Jolles, who wrote in an E-mail:

“Steiner was a visionary, who developed insights on education, based on observation contemplation, that can match with the results of contemporary scientific research, however he used metaphors that do not correspond with what brain research has learned us nowadays. One could say the same of people like Piaget, Vygotsky and others.” (Jolles 2007a)

When learning difficulties became more and more an object of research it appeared that not only psychologists were interested but also the medical world. Of great influence was Jean Ayres' book 'Sensory Education and the Child' (Ayres 1980), that showed that there was a relation between the child's ability to learn and the child's neurological and movement development. From that time on more and more brain research was done in relation to learning processes.

The serious research on brain functions started during and after World War One, when for the first time numbers of war victims suffering from brain damage and other war injuries came

available. Later one of the first terms that came into use, when children with learning and behaviour problems were diagnosed, was Minimal Brain Damage (MBD). Scientists assumed that minimal brain damage, from lack of oxygen during delivery, was causing problems. Observation of the children showed similar, however more subtle symptoms as were seen with adults with severe brain damage. Later - in 1981 - the term was changed into Minimal Brain Dysfunction. Symptoms were divided into three main groups: hyper kinesthetic impulsiveness, learning difficulties, and attention problems. The terminology was changed into 'attention deficit hyperactivity disorder' (ADHD) and 'attention deficit disorder' (ADD) but cover more or less the same symptoms. (Dumont: 1994) De Quiros and Schragger (1979) state that in the United States and many other countries it is very difficult to establish an interchange of ideas between educators, therapists, and medical doctors. It was one of Steiner's great concerns to get (anthroposophical) medical doctors interested in (Waldorf) pedagogy. He appointed Eugen Kolisko as school doctor at the first Waldorf School in Stuttgart. Steiner also initiated an anthroposophical curative education for mentally disabled children, under the guidance of the Medical Section of the High School for Spiritual Science in Dornach.

Neuro-Psychologists de Quiros and Schragger (1979) describe four levels of learning: the primary learning processes, that allow survival and adaptation. Secondary learning processes allow utilisation of general knowledge, tertiary learning processes imply the use of symbols, and quaternary learning processes imply also the ability to think with symbols and formulate or create new patterns. The primary and secondary learning processes are characteristic of animals. Only human beings have the potential for the tertiary and quaternary learning processes, because they are connected with the development of speech, language and thinking. The development of language can be disturbed by cerebral dysfunction, while cerebellar disorders disturb the muscular coordination, and in minimal cerebral disorders there is loss of the possibilities of symbolisation (spelling, writing, mathematical calculation) Reading and writing need complex structural maturation in motor activities, vision and language levels. Learning abilities are depending on coordinated motor activities. The bases of motor activities are posture and balance (i.e. proprioception), vestibular function, and vision. Also laterality is an important element in the development of the child. Laterality is the more sophisticated motor development on one side of the body. Dominance is connected with the different functions of the two brain hemispheres. Language and learning will not develop properly if the postural system and laterality are not yet established.

“Motor activities are always related to learning processes.”

(de Quiros and Schrager 1979:49)

“The importance of motor activities should never be underestimated.”

(de Quiros and Schrager 1979:61)

In the following chapters de Quiros and Schrager discuss the relations between posture, movement and learning, and the visual and auditory foundations of learning. They explain the fundamental role of proper functioning vestibular organs in the coordination of eye movements. Also in the development of proper auditory functions are related to the development of the vestibular system. They discuss in detail their approach to learning disabilities which they see as being connected with specific human skills. De Quiros and Schrager discuss their view on primary and secondary learning difficulties, including psychological disturbances, and then give an overview of the neurological and neuropsychological examination, ending with a chapter in which they share their view on therapy and remediation, teaching of reading and writing, and some neuropsychological principles at home and at school.

The importance to my theme of the contribution of de Quiros and Schrager is formed by the detailed description they give of the different levels of learning processes, and that on each of these levels possibly difficulties can be occur. They draw attention to the developmental stages of the young child, when body awareness, and spatial orientation are build up as foundation for the later learning processes. These insights correspond with the view within Waldorf schools that bodily skills are important, as is the development of the sense of touch, the sense of wellbeing and life processes, the sense of balance, and the sense of self movement (proprioception). This is seen as being especially important during the first seven years of the child’s development.

Then de Quiros and Schrager continue sharing their insights in the developing of language and thinking in relation to the different developmental stages. They trace the principle of imitation, which according to Steiner basic to the young child’s learning (Steiner 1965, p. 24), when they describe that even when two adults talk together, there will always be words, expressions, and phrases which are unconsciously reproduced by the other party. This principle has been described by neuroscientists (Rizzolatti and Galleze) at the University of

Parma (Italy) as being connected with specific brain structures named mirror neurons. (VPRO Noorderlicht 2002)

For our projects the work of de Quiros and Schragger shows the importance of the work with the proprioception, spatial orientation, the integration of early movement patterns and laterality.

I could not find information about the importance of the breathing for the development of the neurological structures. De Quiros and Schragger however do explicitly and in detail describe the importance of the language development as an important stage in developing thinking capacities. Steiner (1980b) spoke of the development of the child's fine brain structures influenced by the process of learning to speak.

In 1982 the Belgian medical doctor B.Huybrechts (1982) published his research on school readiness, in which he describes the relation between learning problems and problems of sense perception character. Huybrechts developed a school entry test with which he researched aspects of the movement development and sensory development of the first seven years: gross motor and fine motor activities, coordination of movements, laterality, body geography, and more complex tasks as rhythmical structuring and spatial structuring. At that time the focus was strongly on the preconditions for learning.

Sally Goddard Blythe (2005) in her book *The Well Balanced Child* describes in detail the developmental steps of the young child. She explains why movement matters for the child's development, both physically and psychologically. Goddard connects the movement development with the different steps in brain development. Movement (motion) comes before e-motion. Movement is basic to existence, and experience of movement is shared by every living thing; the rotation of the earth on its axis, the creation of life as a result of cellular movement, the biological motility, the perception through the senses. According Goddard movement is an integral part of life, from conception until death. Therefore it is vital for the child, not just to learn to move itself, but it is also important for shaping it's personality, it's feelings.

“Learning is not just about reading, writing, and maths. These are higher abilities that are built upon the integrity of the relationship between brain and body.”

(Goddard Blythe, 2005, p. 5)

She compares the early movement patterns of the young child, even the movements the child makes inside the mother's womb, with the brain development of our evolutionary ancestors. The child seems to repeat Piscean (in the womb), Reptilian, and Mammalian (crawling and creeping), until Primate movements patterns. When the body is vertical and the hands are freed from supporting locomotion, the true human movement pattern is developed. The hands are now free to work.

This vertical position of the human body is dependent on the proper functioning of the sense of balance. This is the function of the vestibular system, the oldest of all sensory systems, that is responsible for orientation, posture, and knowing one's position in space. High cognitive skills (reading and writing) require directional awareness. Reversal of letters, numbers, and words often are accompanied by immature balance.

The stages of movement development reflect the formation of connections within the brain, for certain reflex patterns in the nervous system are connected with these stages.

In her book Goddard describes three types of reflexes: Intra-Uterine Reflexes, Primitive Reflexes, and Postural Reflexes, together with detailed information on the functions of these reflexes in the early development: their function in mastering the body for eye control, coordination of movements of head, arms and legs, fine motor skills in coordination of finger and thumb movements, and so forth. From my own observations I can confirm Goddard's statement:

‘The first lesson the child must learn is control of the head position on the body.’

Goddard Blythe (2005:35)

In the classroom teachers will see children sitting at their desks in positions that suggest trouble in this area. Research has shown that with more than 70 percent of the children having learning difficulties, that are diagnosed as being dyslexic, or that show signs of symptoms of ADD or ADHD, the STNR was present. (Goddard Blythe 2005, p. 50) In the description of our project (see part one of this assignment) I already mentioned the movement patterns from early childhood like TLR, ATNR, STNR. With the two boys I worked with in this project, I had the feeling that there were signs of retained reflexes. Both boys in gymnastic lesson showed enormous difficulties in learning to do somersault, have difficulties holding posture when sitting, they have poor hand-eye coordination, and trouble in tracking of graphical forms in form drawing and writing.

Goddard shows the importance of the different developmental steps, and also how important it is that children have enough time and opportunity to go through these stages of movement and neurological development.

In the following chapters of her book Sally Goddard Blythe covers the development of hearing, and with that the influence of music, and of musical education on the development of speech and language.

Van der Leij (1998) limits his focus on learning how to read and spell. He differentiates between the technical skill of knowing how to read, and the understanding of the content of the printed word: technical reading skill versus comprehensional reading skills.

Struiksmā, van der Leij, and Vieijra (1995) developed a practical tool to diagnose the different aspects of technical reading processes and early spelling skills. In their book they state that there is little proof for the relation between sensory motor skills and reading and writing learning processes. One of their conclusions is that work on the basic bodily aspects therefore only train these bodily functions but do not influence the child's reading or writing capacities (1995, p.21). Therefore Struiksmā, van der Leij, and Vieijra prefer to analyse the didactic and educational processes in detail, to be able to help the child. The model for the technical reading skills and early spelling skills gives tools for the teacher to analyse the difficulties a child has with learning to read or write. With that it gives one tools at hand to give specific help when this learning process is hindered.

In their view when a child is reading a word, he/she needs to be able to visually perceive and analyse the different letters and forms, connect these letterforms with their sounds, then combine (synthesise) the sounds – in the right sequence – into a spoken word. Later in the learning process the child will not necessarily need to analyse all different letters in a word and connect them with sounds, but as an advanced reader he/she will recognize the total of the word shapes. The capacities necessary for this reading process are: Analysing and discrimination of visual information; discrimination of auditory information (such as difference in consonants like F – V), connection between symbols and pronounced sounds; synthesis of the pronounced sound into a spoken word. The child needs also to be able to keep track of the order in sequence and time.

In writing and spelling Struiksmā, van der Leij, and Vieijra come to a similar list of skills that are necessary. The child needs to be able to discriminate and analyse auditory of information – the spoken word. The order of the different sounds in a word must be analysed. Then the

connection between pronounced sounds and symbols needs to be known. The order of the sounds must be remembered and be written down on the paper.

To diagnose on which level the child has difficulties in developing skills, Struiksma, van der Leij, and Vieijra have developed little tests. They also take in account the results of standard reading and spelling tests.

In the work of the class teacher and educational support teacher the indications Struiksma, van der Leij, and Vieijra have shown to be of great value. The teacher can simply analyse the different tasks the children need to learn, and help them when necessary. The educational support teacher, when focussing on this aspect of education, can structure the child's learning process and give the child the tools and the insight how to approach it's problem with reading a word or a sentence, or how to spell.

The Centre for Educational Research and Innovation (CERI) in The Netherlands started in 1999 a project 'Learning Sciences and the Brain'. A 'Brain and Learning Committee' was formed that hopes to provide a fruitful frame work for the development of the Brain, Learning and Education' theme for the years to come. This committee wants to strongly stimulate a dialogue between neuroscience , education, and teaching disciplines:

“A dialogue between scientists and educators is essential to the further development of learning opportunities for young people, adults and older people.”

(Jolles a.o. 2005-2006, p. 8)

The brain develops to filter and select sense impressions and emotional elements. In the process of maturing in the brain important patterns are build up, others are broken down. Executive functions of the brain are based on an adequate development of the brain's frontal lobes. This development takes more than twenty years. As an example: the adolescent brain (15-20 yrs.) is mature enough to function in making decisions, but however not mature enough to really make judgements, as an adult, taking in mind all consequences (Jolles, J 2007b p. 30-32). For our project this information could be encouraging, for in this light the work with the youngsters in Spain could be effective, and that one can still have students of this age do this type of exercises, because their age group can still benefit from this.

“It is very important to recognise and better understand the way emotions affect learning and the processing of information”. (Jolles a.o. 2005-2006, p.8)

In this proposition we might be able to see connection the influence the breathing has on the functioning of the brain. According to Steiner's ideas (Steiner 2001, p. 35) emotions are reflected by the rhythmical system of breathing in the human body.

Research from neuroscience or neuropsychology do not explicitly mention the breathing as an important element in the development of the brain and nervous system. In the literature I reviewed here the development of speech is mentioned as been built on the fine neurological structures of the brain controlling the movement system. In speech the muscles of the mouth and lips, and the larynx shape the airflow. In that way the different sounds are produced by the total of the human speech organs. The forming of speech as sounds and words also effect the flow of the arterial blood. It could very well be that already the rhythm and the forces necessary for breathing out while speaking influence the flow of the venial blood. Could we connect this with Steiner's idea (Steiner 1976) that in speaking the young child's brain is finely structured by the three systems: impulse from the senses perceiving the movements of the speech organs transmitted by the nervous system, the blood system pushed into the brain by the breathing, and the rhythm of the cerebrospinal fluid also pushed upward by the breathing? This is what one might call the process of imprinting; forming of neurological patterns and brain structures by "imprinting" the sense experience transmitted to the brain through the nervous system.

It appears that for the different language activities, the most complex - only human - neurological functions are imprinted on individually varied locations in the cortex.

The most recent results of neuro-scientific research concluding this were published in The New England Journal of Medicine. Surgeons at the 'Department of Neurological Surgery and the Brain Tumor Research Center, University of California' at San Francisco discovered that the language sites in the cortex of the brain vary among patients. While the patients with brain tumour were awake, a 'language mapping' procedure of the cortex using intra-operative technique was executed. This was done to be able to operate the tumour without loss of language.

"The cortical maps also showed surprising variability in language localization within the dominant hemisphere. The composite language maps generated in their study suggest that current models of human language organization insufficiently account for observed language function."

(The New England Journal of Medicine 2008) (NRC Handelsblad 2008)

It also appears that the structure of the cortex is not fixed. It has a great plasticity. When certain areas of the brain are damaged, often other parts can learn to take over its functions. This corresponds with Healy's (1990) findings that the brain structures is moulded when new vocabulary is learned.

Over the years various scientific views have been developed on learning and learning difficulties. The spectrum is from a strictly neuro-scientific, and movement developmental standpoint to the strictly didactic approach. In the daily practice of teaching in school insights and advise on the level of didactics of course can be of great value and necessary. Teaching academics and education are the teacher's main tasks. However, in my opinion the importance of the bodily development of learning conditions must not be over looked. In this realm we need to distinguish however between the psychological aspects, the aspects of general bodily health, and the aspects of neurological, sensory, and motor development. This might indicate the that it is important that (Waldorf) teachers need to learn to become aware of different angles for a proper child study. Focussing on the psychological development is what teachers are used to. The general health condition, which was Steiner's great concern - certainly in the situation after World War One - the constitutional physical condition, is another aspect. One in which teachers will need to cooperate with school doctors.

The aspect of the sensory and motor development, which forms the foundations of the learning capacities is an ever so important third aspect.

“Paediatricians, family doctors, and psychiatrists usually focus on aspects of health, illness, and development and may not always recognize a sensory integrative problem.” (Ayres 1980)

Also this aspect of the child's development needs to be part of the teacher's consciousness. Problems in bringing together or organise into a whole, the various functions of the sensory and coordinating system are not obvious. They occur among children throughout the world. This aspect of immature development cause even bright children to have trouble learning in school. Sometimes the result is poor behaviour in children who have fine parents and positive upbringing. Especially for the educational support teachers this aspect needs to be part of the work. This aspect not only effects the learning capacities of the child. The poor conditions of the child's neurologic and movement coordination will remain throughout the rest of its life. Teachers need to develop a feeling for their reasonability on every possible level for the child growing towards maturity.

None of the scientists discussed above mentions the importance of the breathing for the development of the brain, and the imprinting of patterns into the brain and nervous system. However, they all describe the importance of the development of body awareness as basic for the further development of language and speech. Steiner (2001) spoke of the bodily senses metamorphosing into higher senses, for perceiving language, and conceptual thoughts. He also explains the important role of the breathing in the imprinting of brain structures.

“This area (of the brain) is structured by the combined effect of the breathing, which is carried there by the blood, and of whatever activity comes in through the ears and the eyes. In other words, blood and nerves together structure this brain mush beautifully.”  
(Steiner 1976)

Sally Goddard Blythe, mentioning Alfred Tomatis’ research, and illustrating with her own experience having her son joining the choir of Chester cathedral, and the findings of Armin Huseman come closest to Steiner’s indications. In contrast to that Van der Leij mainly focuses on the didactical measures to help children in the learning process. This is another aspect of the educational process that needs to be looked after, especially in Waldorf schools. His detailed analysis of the reading and writing process may give tools to help children with learning problems in this field.

## **Conclusion**

I have tried to connect the project with Steiner’s ideas and with other more recent literature to find confirmation that working with exercises that address the element of breathing can be of value in the pedagogical and developmental work with students and children. In non-Waldorf literature the element of breathing is hardly mentioned, however most authors continue after their description of the neurological and movement development with mentioning the development of human speech. It is right in his lecture on the development of human speech when Steiner came to speak of the formation of the fine brain and nerve structures in connection with the rhythms of breathing and blood (Steiner 1980b).

It is my great wish to continue my research on the element of breathing, and its role in the development of the structural physical element of the body. In my view educational support and therapy only then have satisfactory results, that could be taken over into further stages of the course of life, when the element of the breathing as a healing force is taken into account.

## Bibliography

Ayres, Dr. AJ (1980): *Sensory Education and the Child*, Los Angeles, CA, USA. Western Psychological Services

Bartel, D Michelstadt, Germany: „Rota-therapy, a neurophysiologic approach“  
Website: <http://www.rota-therapie.de> [2007, January 23<sup>rd</sup> ]

Bartel, D (2005): “Rota Therapy Übungen” hand out at a Conference for educational support teachers in Bonn, Germany

Bühler, W. (1983): *Het lichaam als instrument van de ziel*, Zeist, The Netherlands, Uitgeverij Christoffor

Coulter, DJ (1909) : *Montessori and Steiner: A Pattern of Reverse Symmetries*  
*Holistic Education Review* - Winter Issue 1990, Brandon, VT - USA

Eikenboom, J (2007a): *Foundation of The Extra Lesson*, Fair Oaks CA, USA. Rudolf Steiner College Press

Eikenboom, J (2007b): *Breathing and Education Assignment Paper IMP*, Zeist, The Netherlands

Greenfield, S (1997): *The Human Brain*, Dutch translation: *Het menselijk brein*, 1998, Amsterdam, The Netherlands, Uitgeverij Contact

Goddard Blythe, S (2005): *The Well Balanced Child*, Stroud, England, Hawthorn Press

Goddard Blythe, S - INPP: website The Institute for Neuro – Physiological Psychology  
<http://www.inpp.org.uk> [2008, January 5<sup>th</sup>]

Formação em Recursos Especiais em Pedagogia Waldorf , São Paulo, Brazil  
Website: <http://www.recursosespeciais.com.br/principal.htm> [2008 January 2<sup>nd</sup>]

Healy, J. M. 1990 *Endangered Minds*, New York USA: Simon & Schuster

Huybrechts, Dr. B. (1982): *Motorische Ontwikkeling en Leermoeilijkheden (Motor Development and Learning Difficulties)* Lisse, The Netherlands.  
Uitgeverij Swets & Zeitlinger

Jolles, J a.o. (2005-2006) *Brain Lessons*, A contribution to the international debate on Brain, Learning & Education (2005, Revised and extended in November 2006) Maastricht, The Netherlands, Neuropsych Publishers - a download from website: [www.hersenenleren.nl](http://www.hersenenleren.nl)

Jolles, J (2007a) Maastricht, The Netherlands: E-mail correspondence [2007, October 1<sup>st</sup> ]

Jolles, J (2007b): *Neurocognitieve ontwikkeling en adolescentie: enkele implicaties voor het onderwijs*, *OnderwijsInnovatie March 2007 pp 30-32*.  
download from website: [www.hersenenleren.nl](http://www.hersenenleren.nl) [November 2007]

Leij, A van der (1998) Leesproblemen, Rotterdam, The Netherlands, Uitgeverij Lemniscaat

McAllen, AE (2004a): The Extra Lesson, Fair Oaks, USA Rudolf Steiner College Press

McAllen, AE (2004b): Sleep, An Unobserved Element in Education, Fair Oaks, USA Rudolf Steiner College Press

McAllen, AE (2004c): Reading children's Drawings, Fair Oaks USA: Rudolf Steiner College Press

de Quiros JB , Schragar OL (1979) Neuropsychological fundamental in learning disabilities. Academic Therapy Publications. Novato. CA. USA

VPRO Noorderlicht (2002): Spiegelgebaren De ontdekking van spiegelneuronen  
<http://noorderlicht.vpro.nl/afleveringen/5949841/items/6801770/> [February 23<sup>rd</sup>, 2008]

NRC Handelsblad (2008)

[http://www.nrc.nl/wetenschap/article879530.ece/Meer\\_variatie\\_in\\_taalgebieden\\_in\\_de\\_hersen](http://www.nrc.nl/wetenschap/article879530.ece/Meer_variatie_in_taalgebieden_in_de_hersen) [2008, January 5<sup>th</sup> ]

Steiner, R (1965): The Education of the Child in the Light of Anthroposophy, London, GB Rudolf Steiner Press

Steiner, R (1973): Overcoming Nervousness - Lecture Munich January 11<sup>th</sup> 1912, Great Barrington, MA USA. Anthroposofic Press / Steiner Books

Steiner, R (1976) Inzicht in het wezen van de mens, Zeist, The Netherlands: Vrij Geestesleven

Steiner, R (1980a): Anthroposophie, Psychosophie, Pneumatosophie (GA 115), Dornach, Switzerland: Rudolf Steiner Verlag

Steiner, R (1980b): The Human Being in Body, Soul, and Spirit, The Origin of Speech and Language, lecture Dornach, August 2, 1922. Translation into Dutch, Zeist, The Netherlands: Uitgeverij Vrij Geestesleven

Steiner, R. (1986): Meschenerkenntnis und Unterrichtsgestaltung – Lecture Stuttgart June 13<sup>th</sup> 1921, Dornach, Switzerland, Rudolf Steiner Verlag

Steiner, R (1991): Die geistig-seelischen Grundkräfte der Erziehungskunst GA 305 (Spiritual Ground of Education), Dornach, Switzerland. Rudolf Steiner Verlag

Steiner, R (2001): Algemene Menskunde als basis voor de pedagogie, 3rd ed. Zeist, The Netherlands: Vrij Geestesleven

Steiner, R (2003) Menskunde innerlijk vernieuwd (German title: Meditativ erarbeitete Menschenkunde (GA 302a), Uitgeverij Pentagon, Amsterdam The Netherlands

Struiksma, AJC, Leij, A van der, Vieijra, JPM (1995) Diagnostiek van Technisch Lezen en Aanvankelijk Spellen, Amsterdam, The Netherlands, VU Uitgeverij

The New England Journal of Medicine, 2008 Volume 358 Website

<http://content.nejm.org/cgi/content/short/358/1/18?query=nextarrow> [2008, January 3<sup>rd</sup> ]

Voeten, J (2007) Help mij het zelf te doen – 100 jaar Montessori: “vrij & zelfstandig” *NRC Handelsblad* December 30, 2007

Vogel, L: (1979) *Der dreigliederige Mensch, morphologische Grundlagen einer allgemeinen Menschenkunde*, Dornach, Switzerland, Philosophisch-anthroposophischer Verlag Goetheanum

## APPENDIX

### Rotation Exercises

From research by Doris Bartel P.T. (Germany) (2005)

1. **Eiffel tower** (prone)

Preferable bare feet, certainly no shoes

Prone position on the floor with a soft surface, and a thin pillow or folded bath towel under the chest.

Spread legs out, tops of toes on the floor, fingers are on top of each other flat on the floor under the forehead.

Bend the chin slightly towards the chest, at no time overstretching the neck. Feet and toes need to relax, no tension.

Time: Remain in this position for 5 minutes.

The breathing will deepen.

One can observe that the sacrum will start moving with the breathing.

Always stop or change position a little when uncomfortable or in pain.



Do this exercise for some time once a day for at least one week.

2. **Windmill** (prone position)

In prone position turn the head to the right side, so you are lying on your left side of your face.

Now bend the right arm into a right angle position, the nose is pointing to the elbow, palm relaxed on the floor.

Move the left arm into a right angle position, palm of hand is upward, relaxed and open (no fist).

Move the left leg to the right, in a right angle position. Move the right leg to a right angle position behind the left leg. The legs are in a 90-degree angle at the hips and knees. The pelvis is now in a 90-degree angle to the floor.

Time: 5 minutes in this position.

Stop or change position a little always when uncomfortable or with pain.



Windmill

**Then same position on the other side.**  
Remain in this position for 5 minutes.



Windmill

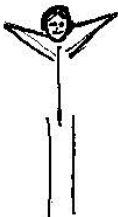
Do this exercise once a day in combination with the Eiffel Tower.  
Start the session with the Eiffel Tower 2 – 3 minutes, then Windmill (2x 5 minutes) and end with Eiffel Tower for 5 minutes. Total +/- 18 minutes

### 3. Cork Screw (supine position)

Start with Eiffel Tower exercise 2 – 3 minutes before doing the Corkscrew.

Turn supine, head on the spot where the feet were, feet where the head was, to keep the cardinal points in space related to the body. (left, right, front & back)  
**DO NOT JUST ROLL OVER ON THE BACK**

In supine position put hands behind the back of the skull, close to neck



Bring feet closer to the body by bending one knee, then the other knee.  
Now pull up one knee over chest, then the second knee.  
Turn head to the right side. Turn both raised legs to the left side and place them on the floor, keep the knees bent.  
Pelvis, knees and legs are in a large angle.  
Stay relaxed in this position for 5 minutes



Rotation exercise  
supine

**Turn back to supine position: first turn the head then the legs.**  
Then turn the head to left side, and put the legs to the right side.



Stay relaxed in this position for 5 minutes

- Do both sides once more for 2 or 3 minutes.
- End the session with **Eiffel Tower exercise** for some minutes.  
First turn to the original prone position: head back on the spot where the feet were, feet where the head was, to keep the cardinal points in space related to the body. (left, right, front & back)  
**DO NOT JUST ROLL OVER ON THE BACK**

### **The Copper Ball Exercise** **Audrey McAllen (GB) (2004a)**

Let the student lie flat on his back with legs straight on a mat, arms at his sides with the palms upward, holding the balls. Place a soft ball between the big toe joints so the feet are kept parallel.

**A.** Ask the student to:

1. Lift the head until one of the hands can be seen.
2. Gazing at the ball, lift this arm slowly into the vertical position.
3. At the moment the ball would fall, turn the hand and continue the movement backwards until the straight arm reaches the floor, turning the head and following the movement through with the eyes until the arm is fully extended on the floor over the head.
4. The relax this arm on the floor.
5. Repeat 1 – 4 with the other arm, eyes following the ball.
6. Both arms are now over the head, lying on the floor relaxed.
7. Turn the gaze to the ball in the first hand which as used.
8. Stretch this arm along the floor.
9. Bring it back to the side of the body while gazing at the ball, by lifting it straight up into the vertical, reversing the hand direction at midway position.
10. Relax.

11. Repeat 7 – 10 with other arm.
12. Both arms are now relaxed at the sides of the body.
13. Continue thus rhythm, always *emphasizing the relaxation* between the movements so that the student lets go of the tension in the *stretching* movement and has to find the unused, unaccustomed areas of the *lifting* movements.
14. Gradually, increase the time to 5 – 7 minutes.

**B.** With the eyes closed and both hands at the sides:

1. Lift the arms together, turning them as before when they are vertical.
2. Thoroughly relax the movement when the arms are resting on the floor over the head.
3. Return as before and repeat.
4. Gradually, increase the time to 5 – 7 minutes.

**C.** With the eyes still closed:

1. Place one hand on the floor over the head by moving it up and back as before, the other remaining on the floor by the side of the body.
2. Move the hands at the same time until positions are reversed, sensing the ‘truning’ movement required when the arms are level with each other while in the vertical position.

Gradually increase time to 5 – 7 minutes.

**The Moving Straight Line and Lemniscate**

**Audrey McAllen (2004a)**

Have the student sitting at a large table or at a flat desk placed lengthwise. Feet held parallel, should be firmly on the floor. The paper is placed, with the longest measurements top to bottom, in front of the child and fixed with tape.

Ask the student to choose two block crayons, one for each hand. With all fingers of one hand placed firmly on top of the block and the thumb underneath, he lays the crayons so that the long side of each block rectangle is fully on the paper.

**A.**

1. The student may begin by drawing a straight vertical line *or* a large ‘8’ to one side of the paper; the form should be the full height of the paper, and the figure ‘8’ should be wide.
2. The, on the remaining part of the paper, he draws the second form, also the full height of the paper.
3. Now have him simultaneously draw, by *continuously moving* the up-down straight line with one hand and the large ‘8’ with the other hand; the hands move simultaneously towards and away from the body.
4. The forms are drawn continuously for 3 – 6 minutes.

**B.**

1. Now turn the paper. Repeat the movement exercise, each hand now drawing the opposite form. 3 – 6 minutes again.

**The Ball Twirling Exercise**

**Audrey McAllen (2004a)**

With this exercise, *correct any mistakes as they occur.*

1. Stand with a copper ball or orange in each hand, hands lifted forward with elbows bent, arms in a graceful curve, and copper balls or tennis ball under one foot.

2. Move the right ball with the thumb on the ball moving from the little finger across the palm of the hand to the index finger; this right ball thus moves counterclockwise in the horizontal plane.
3. When 2 is established, move the left ball with the thumb from the little finger across the palm of the hand to the index finger; the ball moves thus clockwise.
4. Add the foot movement by rolling the ball 'inwards' around and around, controlling the ball with the sole of one foot. The right foot moves counterclockwise, and the left foot moves clockwise.
5. Now say a rhyme – a nursery rhyme/jingle or a verse the student has learned is suitable.
6. Keep everything moving!
7. Repeat with the other foot.

## **Spain**

As mentioned in the introduction the teachers of the school in Spain were worried about the academic level of these students. Many of them had difficulties in picking up intellectual concepts, as in mathematics, there were memory problems, and concentration problems. Some students had reading problems, and some were even diagnosed as dyslexic. The mood within the group however was friendly. In stead of focussing on the intellectual aspects of learning we discussed the possibility of working with exercises that addressed the breathing, and at the same time could help some of the students with movement problems, or with unattended elements from earlier developmental stages, such as retained reflex patterns.

The question arose as to when in the weekly schedule a suitable time could be found. The only time available appeared to be the mathematics subject lessons on Mondays and Thursdays, both days a session of 45 minutes. Unfortunately on the timetable there was an eurhythm lesson right before these sessions; not the most ideal situation to start with movement exercises, having two sessions of movement exercises the one after the other. The staff and teachers of the school could not find an alternative.

The teachers (the mentor of the class and the educational support teacher) decided to work with the students all the year, with exercises for each term, once a week 45 minutes - more or less, 12 weeks in each term. The grade 10 students were divided into two groups. The group working on Mondays during the first semester started with the Rotation Exercises. The sessions were ended with paintings of the Moral Colour Painting series (McAllen 2004b : 49-64). These sessions were led by the educational support teacher of the school.

Of course quite some courage was necessary to start with this project. There was no experience with this kind of approach and we could not be sure of the students reaction on the project, and would the project address the needs as we imagined it would?

However we soon realized that working with this age group was therefore so nice, because these youngsters were able to verbalize what they were experiencing. With younger children this is more difficult, and pedagogically it is better not to ask judgements from them too early. In the beginning of the work the students were very anxious and it cost them much to relax and to breathe in a relaxed way. The students complained a lot. But little by little, they became much calmed, and some obtained a very deep relaxation. In the retrospective at the end of the first term the students gave their comments. Some of the opinions were:

- "In the beginning it was very difficult for me because I didn't see the sense of it at all. But soon I realized that it helped me to relax, and that I could be much more concentrated during the rest of the morning."
- "The exercises produced more tension in me, but, little by little, I learned to relax"
- "I felt very uncomfortable. It cost to me much to relax."
- "The exercises cleared my mind. I was more awake."

## **Report from the school in Spain:**

10ª CLASE Escuela L. M. curso 2006-2007

Fecha del informe: 7 de mayo de 2007

### **HISTORIA DE LA CLASE**

- ❑ La clase comenzó en primero con una maestra sin experiencia en primaria, y que se encontró a un grupo con muchas dificultades. Desde la 1ª clase, en las evaluaciones del equipo se hablaba de numerosos alumnos con dificultades para estar centrados, atentos y escuchando. Entre 3º y 4º de primaria, se pidieron informes psicopedagógicos de muchos de ellos y se les recomendó trabajar con un psicólogo. De los alumnos que hay actualmente
- ❑ La clase comenzó con 20 alumnos, y durante toda su biografía ha tenido un gran movimiento de alumnos, tanto de salido como de entrada. Hay al menos 23 alumnos que han estado en la clase, y que se han ido. De los actuales 19 alumnos, tan sólo 8 alumnos están desde primero. Todos ellos estuvieron en un Jardín de infancia Waldorf.
- ❑ La maestra tutora desde primero se fue al terminar 6º de primaria y el nuevo tutor volvió a detectar grandes dificultades de aprendizaje en la clase la clase. A dos de los alumnos se les diagnosticó dislexia.
  - Uno de ellos comenzó a recibir terapia de pedagogía de apoyo. No podía leer con fluidez y confundía las letras, orden, etc. Se detectó en ese momento también un don extraordinario para la pintura (pero fuera del colegio).
- ❑ Al comienzo de 7º se incorporó un alumno nuevo.
- ❑ A mitad de 7º se incorporó una nueva alumna, con muchas dificultades en el movimiento, en la comprensión y con dificultades en la musculatura.
- ❑ En 8º se fueron 3 alumnas de las que mayor facilidad intelectual tenían.
- ❑ En 9º se fueron dos alumnos, uno con muchas dificultades y otra con fluidez en el aprendizaje y entró un alumno nuevo.
- ❑ En 10º se ha ido un alumno que estaba desde el principio y que resultaba muy conflictivo y ha entrado una alumna nueva.
- ❑ Esta clase va a ser la clase pionera de bachillerato. La primera undécima clase de la Escuela L. M.

### **DESCRIPCIÓN FÍSICA**

- ❑ Actualmente la clase está integrada por 19 alumnos. De ellos, 10 son varones y 9 mujeres.
- ❑ Hay grandes diferencia en las edades de los alumnos de la clase. El mayor, con 16,5 años y dos con 15 recién cumplidos.
- ❑ Movimiento: en general es una clase con dificultades para la coordinación y el movimiento, que no tienen mucho interés por la educación física. Han ido mejorando mucho en los dos últimos años, pero presentan dificultades espaciales y motoras.

Actualmente, están preparando un gran proyecto de eutimia para final de curso y están absolutamente involucrados.

- ❑ Doce sentidos:  
En general, la clase presenta dificultades grandes en los sentidos inferiores (tacto, movimiento, equilibrio) y los superiores, tono ajeno, pensamiento ajeno y yo ajeno. Dificultades en la concentración y en el reconocimiento de conceptos.
- ❑ Respiración:  
Cuesta mantener un ritmo sano de respiración en la clase. El ritmo es lo difícil. Se disparan con facilidad (agitación), aunque poco a poco van entrando en un respeto por los hábitos saludables.

#### **ASPECTOS RELACIONADOS CON EL CUERPO ETÉRICO**

- ❑ Temperamento: sanguíneo-colérico
- ❑ Memoria: grandes dificultades para asentar los conceptos, para llevar la memoria hasta los miembros.

#### **ASPECTOS RELACIONADOS CON EL CUERPO ASTRAL**

- ❑ Pensar: dificultades para los conceptos abstractos.
- ❑ Sentir: polares (muy amables y muy duros e incisivos)
- ❑ Voluntad: una gran mayoría, con una gran voluntad para superar sus dificultades.

#### **RELACIONES SOCIALES**

- ❑ Actualmente, el grupo ha mejorado bastante en sus relaciones sociales, aunque es frecuente asistir a piques irónicos y machacones entre ellos. Con las dificultades de los demás, etc. Hay un momento de una gran crítica argumentada.

#### **¿POR QUÉ TRABAJAR CON PEDAGOGÍA DE APOYO?**

La clase siempre ha tenido un gran número de individuos (la mayoría) con dificultades de aprendizaje; los alumnos nuevos que se han incorporado también las presentaban.

Al comenzar en 9º, L. P. los tomó como tutora y yo como profesora de matemáticas y física. Desde el principio, fueron muy claras las dificultades en la percepción de los fenómenos y la expresión oral y escrita de los procesos observados. En matemáticas, esto se acentuaba.

Decidimos comenzar a trabajar con ellos en la parte rítmica de la clase principal, tres días por semana, con el grupo entero. Los ejercicios que trabajamos, en bloques de 12 sesiones, fueron:

- Elevar el propio peso.
- Las bolas de cobre.
- La espiral tripartita.
- Ejercicios de pintura (lemniscata).

Siempre estábamos dos maestros, L. dirigiendo la actividad y el otro maestro (C. o yo) de sostén y apoyo y los 20 alumnos.

Presentaron grandes dificultades para estar en silencio y mantener el equilibrio en “Elevar el propio peso”.

En “Las bolas de cobre” fue muy, muy, llamativa la dificultad para sostener la bola de lana en los pies. Ningún alumno era capaz de sostenerla. Se les caía entre 5 y 15 veces a lo largo del ejercicio. La dificultad para encarnar en ellos mismos era clarísima. Su cuerpo astral tenía un predominio muy grande en cada uno de ellos y el yo se encontraba con muchas dificultades para estar presente. Esto era muy claro también en el desarrollo de las clases intelectivas: no podían estar presentes y menos concentrarse.

### **TRABAJO ANUAL EN LA 10ª CLASE**

Al comienzo del curso actual, se dio la posibilidad de tener uno de los repases de matemáticas con el grupo partido (1/2 grupo un día y 1/2 grupo otro día). Hablamos Laura y yo y decidimos trabajar con ejercicios de pedagogía de apoyo durante todo el año en esos 45' semanales con cada grupo. Así se lo comunicamos a los padres en septiembre.

A continuación expondré los diferentes ejercicios que hemos trabajado, así como los resultados de las evaluaciones que hemos realizado con ellos al final de cada trimestre y nuestras propias evaluaciones sobre su evolución. Al final, aparece un apéndice con imágenes de los trabajos que han realizado en pintura.

Es importante señalar que los dos grupos tienen antes de la hora de pedagogía de apoyo una hora de eutimia (fue una “casualidad” del horario).

### **GRUPO DE LOS LUNES**

#### **1º Trimestre**

Comenzamos trabajando con ellos los ejercicios para reducir la presencia de reflejos primitivos: La Torre Eiffel, El Molino de Viento y El Sacacorchos.

Después de tres sesiones, introdujimos los ejercicios del color moral inmediatamente después (en cada sesión, ejercicio de reflejos y pintura).

Al principio, estaban muy inquietos y les costaba relajarse y respirar. Se quejaban mucho. Pero poco a poco, a través de la conciencia sobre la respiración, fueron entrando en una gran calma y algunos consiguieron una relajación muy profunda.

En la secuencia de los ejercicios de pintura moral se puede ver la evolución que tuvieron.

En la retrospectiva de final de trimestre, algunas de las opiniones fueron:

- “Al principio me costó mucho, no le veía el sentido. Pero luego me di cuenta de que me ayudaba a relajarme y que podía estar mucho más concentrado en el resto de la mañana.”
- “Me producían más tensión, pero, poco a poco, aprendí a relajarme.”
- “Estaba muy incómodo. Me costaba mucho relajarme”
- “Te despejaban. Estabas más despierto.”

## 2º Trimestre

Hicimos doce sesiones del ejercicio de Las Bolas de Cobre (con La recta y la lemniscata después).

Se notó una enorme diferencia con respecto al año anterior; las bolas de los pies caían mucho menos y entraban en un ritmo, en una respiración. Momentos de grandes bostezos eran frecuentes; a la vez emanaba una gran paz y una mayor presencia.

## 3º Trimestre

Estamos trabajando con el ejercicio de Girar las Bolas y con la Perspectiva roja-azul. La evolución con respecto a hace un año es enorme.

## GRUPO DE LOS JUEVES

### 1º Trimestre

Comenzamos trabajando con ellos el ejercicio de la Perspectiva roja-azul, y después de tres sesiones, introdujimos el ejercicio de Girar las Bolas en sus diferentes versiones dependiendo de lo que observamos en las direcciones de manos y pies. Empezamos y terminamos con la forma básica.

Al principio, estaban muy inquietos, habladores y les costaba centrarse en el ejercicio. Confundían colores y direcciones con mucha frecuencia. No entendían para qué hacíamos los ejercicios y se resistían a entregarse al ejercicio. Poco a poco, se dieron cuenta de que lo iban a tener que hacer igualmente, así que empezaron a intentar hacerlo bien, y toparon con sus propias dificultades.

Al finalizar, esperaban en silencio hasta que todos había terminado; sólo por ese momento, ya valía la pena hacerlo todo. Se notaba su calma, una serenidad y una presencia (encarnando) recién conquistadas.

En la retrospectiva de final de trimestre, algunas de las opiniones fueron:

- “Al principio lo hacía por hacer, para irme pronto. Y me equivocaba siempre. Pero, de pronto, me di cuenta de que los demás estaban haciendo algo de lo que yo ni me había dado cuenta. Así que decidí intentar hacerlo. Esa decisión me dio mucha fuerza y me sentí mejor; podía hacerlo, sólo tenía que querer hacerlo. Desde ese momento, me centré en hacerlo bien. Y pude. Y me sentí muy bien conmigo misma” (En esta alumna, el cambio se notó en todas las materias; empezó a estar presente de verdad. Como si se le hubieran quitado muchas capas.)
- “Al principio me daba igual cómo lo hacía; sólo quería acabarlo. Pero cuando te pusiste delante de mí y me pediste que lo hiciera bien, ... entonces, ... me sentí realmente cómodo. Hacerlo bien me hizo sentirme cómodo conmigo.

### 2º Trimestre

Decidimos trabajar con ellos lo que habíamos hecho con el grupo de los lunes en el primer trimestre: los ejercicios para reducir la presencia de reflejos primitivos: La Torre Eiffel, El Molino de Viento y El Sacacorchos. Y los ejercicios del color moral inmediatamente después. Fue mucho más fácil entrar en el trabajo que en el primer trimestre. Ya estaban por la labor. Se quejaron de los estiramientos, pero algunos consiguieron una profundísima relajación desde el principio. La mayoría consiguieron entrar en un ritmo regular y profundo de respiración.

En la secuencia de los ejercicios de pintura moral se puede ver la evolución que tuvieron.

En la retrospectiva de final de trimestre, algunas de las opiniones fueron:

- “Han sido los mejores 15 minutos de toda la semana”. (Alumnos con muchísimos reflejos retenidos y otras dificultades añadidas- corazón, etc.)
- “No me costaba nada hacer los ejercicios y salía relajadísima. Llegaba a mi casa como flotando. Suelta y relajada.”
- “Me ha costado mucho respirar y soltar. Lo he intentado, pero no lo he conseguido totalmente.”

### **3º Trimestre**

Estamos trabajando con el ejercicio de las Bolas de Cobre y La recta y la Lemniscata después. Cuando llegamos, ya tienen toda la clase despejada y están esperando para empezar a hacerlo.

## **Student's Comments (Spain) after doing the Rotation Exercises in grade 11**

They like the work in general. They welcome this activity with great joy since the work in school is demanding and these exercises allow them "to breathe". We asked them to write down what they had observed and how they were before and after the exercise. We did Eiffel tower exercise , the Corkscrew and then again the Eiffel tower. Their contributions, very textually, are:

Student 1. I was very tensed in the beginning, but when I had finished the exercise I was in a state of tranquillity and internal peace, giving rise to the pleasure.

Student 2. Before doing the exercises my breathing was shorter, fast and "closed". During the exercise, although I was not given instructions how to breathe exactly, I notice that it was relaxing. And at the end of the exercises my breathing was more relaxed, calm and "released".

Student 3. Before doing the exercises he had a state of tension and fatigue. During the exercise I experienced much relaxation and now I am feeling well.

Student 4. Before doing the exercises I was tired. After the exercise, I notice that the pain and the tension that I had in my back have disappeared, like my fatigue in the legs. During the exercise there are parts of my body that hurt, but the truth is that in doing the Eiffel Tower this soon disappears. It quickly goes away. Now I feel myself with more energy.

Student 5. Before my breathing was something heavy and felt all the tense body. After this position, I am totally relaxed and my breathing is deeper. The second time doing the Eiffel Tower I notice it was easier. It is a good exercise to loosen the tension in one's back and shoulders.

Student 6. Before doing the exercises I was concentrated, present, a little nervous (coffee) and ready. After the exercise I was calm. But concentrated, probably more than I was before the exercise (This student is diagnosed as hyperactive).

Student 7. Before, I was tensed. I had difficulties in breathing. Later I was more flexible; the difficulties in the breathing were gone. Like I was sleeping. I have enjoyed it much more.

Student 8. I did not notice any change from the beginning and I do not see the aim of this activity.

Student 9. Before doing the exercise, I was restless, not calm. While doing the exercise I got centred in my breathing and I tried to relax tensed muscles. After finishing I was calm.

Student 10. In the beginning this exercise was a little boring. I got sleepy. But when finishing I was calm. Doing the Eiffel Tower for the second time is different. It is better.

Student 11. Before doing the exercise enough I was tired. While it did the Eiffel Tower exercise for the second time I felt a small pull in the thigh. Now I feel much more rested.

Student 12. Before the exercises I was tired. I was sleepy and hungry. Now I am less tired, but I am more hungry!!!

Student 13. Before I did the exercise I was more anxious. And when finishing, , I did not notice more than just a little bit of calmness.

Student 14. I am now breathing more widely, because we were brought in a twisted position which was complicated for the breathing.

Student 15. When we did the first exercise, I noticed a certain tension and in the beginning I had a strange feeling in the head. The second time, nevertheless I began to relax and I almost fall asleep. With the second exercise (Corkscrew), I felt most uncomfortable. I suppose it gave me a certain tension in the back, but soon I felt a liberation in shoulders. After this support class I felt much more relaxed and concentrated.

Student 16. In class I was tired. My back was hurting and I was hungry. All this, next to the stress and to the oppression of these days. The difference between the first Eiffel Tower and second is that in the first, lungs they are like when you begin to swell a globe: effort costs to breathe deep, costs to cause that they yield. In the second part, the lungs are like when you obtain that phase of the globe: he is so pleasant, seems that they are swollen single. I like much the experience; it is a form to disconnect so much outer as inner.

## **Brazil**

The group of colleagues in Brazil had heard of our work in Spain. They wanted to research the project and find out if there was a possibility of working with groups of children within a rather short period of time. This group was formed by one educational support teacher, a speech therapist, a physiotherapist/occupational therapist, and two art therapists. All five had been participants of the Waldorf Educational Support Training Program (Formação em Recursos Especiais em Pedagogia Waldorf) in São Paulo.

Communication before the project started. The colleagues talked to people from the community - coordinators of the Educational work - to get permission to work and also to arrange the place to work. That happened in November 2006. They then sent a letter to all children's parents telling about their intention to work, the kind of work and the dates they would probably work. The letters were handed out during a Parents Meeting where coordinators of the community talked about our project with the parents.

There was also an evaluation with the parents. Seven of the children had been seen by the anthroposophical Medical Doctor that attends the community. These children went to the appointment with their parents and the class teacher. That happened in May-June 2007 - at the end of the project. The families and the children reported their changes for better, including behaviour, attention, school grades and social skills. The doctor could see the diagnostic drawings of the assessment together with our comments. She reported how much it helped her to build up the child's image for prescribing the medication (these children had some constitutional issues to be addressed by the doctor). There also was a meeting with the class teacher to talk about the progress of the group. The teacher said the children all were socializing better, were more attentive, more willing to help with everyday work. Diagnostic drawings of the *Person House and Tree* (PHT-drawing) and the *Eye-Colour-Affinity* (blue moon/red sun - McAllen 2004a) were taken before and after the project.

Luckily I had the possibility to visit these colleagues, and join in during one of the sessions at the Favela's community centre. It was a great experience to see the work be done at a so far distance. One could really experience that Waldorf education is a world movement.

The group of children under 10 years of age were offered the *Rotation Exercises*, and some other movement exercises. As painting exercises they were offered the *Yellow Sun in the Blue Sky* (McAllen 2004a:160 )

The group of children over 10 years had the same program of movement exercises and painted the series of Moral Colour Paintings.

The question was where to find room to work with a group of children. With the kind cooperation of the Community the colleagues could use the amphitheatre of the Community Centre. This amphitheatre is used for dance, plays, and all sort of other activities that are organized for the people living within the community of the Favela. The room could be divided into two parts. In the front section, which is a sort of foyer, were prepared the tables for the painting. The floor of the actual amphitheatre was used for the movement and rotation exercises.

## **Report from the group in Brazil**

### **APLICAÇÃO DO MÉTODO EXTRA LESSON ATENDIMENTO DE CRIANÇAS EM GRUPO**

**Resumo** - Profissionais habilitados, com experiência clínica individual, desenvolvem proposta terapêutica com crianças de segundo setênio, baseada em experiências semelhantes feitas em países da Europa e nos EUA.

**Objetivos** - Validar a possibilidade de intervenção terapêutica pontual ou preventiva de crianças em grupo, com épocas de curta duração. Verificar os exercícios que possibilitem esse tipo de atendimento, com manutenção da eficácia e dos resultados pretendidos.

**Metodologia** - Escolhida ao acaso classe de segundo setênio do C.J. da Associação Comunitária Monte Azul. Enviada carta de apresentação do trabalho e questionário aos pais, com respectivo pedido de autorização.

Avaliação individual das crianças pelo método Extra Lesson e divisão em 2 grupos: por faixa etária e necessidades terapêuticas comuns. atendimentos de 45 minutos por grupo, uma vez por semana..

Encaminhamento de sete crianças para consulta médica.

Seleção de exercícios atendendo às necessidades estruturais e constitucionais das crianças, visando um desenvolvimento global, apresentados em duas etapas: a primeira com exercícios de postura e/ou movimento, e outros específicos para os casos individuais; a segunda com exercícios de pintura.

Re-avaliação final.

Trabalho fundamentado em conceitos desenvolvidos por Audrey McAllen, professora inglesa cujo impulso para trabalhar com dificuldades de aprendizagem, na segunda metade do séc.XX, baseou-se em indicações pedagógicas de Rudolf Steiner, além de orientações do Dr. Norbert Glass, levando-a a criar exercícios que permitem re-conectar o aluno aos movimentos fisiológicos arquetípicos do ser humano, e adquirir capacidades neurológicas e psico-motoras necessárias ao desempenho escolar, tanto intelectual como comportamental.

**Materiais** - Trabalho realizado no espaço cultural do CJ da Associação Comunitária Monte Azul, na sala do anfiteatro em dois ambientes conjugados.

*Para avaliação:* papel sulfite A4, giz de cera de várias cores, corda, saquinhos de arroz, bolas de tamanho variado, fita crepe, material específico (Extra Lesson, vol.I cap. IV, pg.55 a 65)

*Para atendimento:* tapete emborrachado, lã azul e vermelha, maçãs, kântele, textos escolhidos, papel canson A3 e tamanho específico (Extra Lesson, vol. II, pg.90), pincel no. 20, umedecedor, paninhos, vidros para água, copos de café descartáveis, tinta aquarela de cores variadas, mesas e cadeiras.

**Resultados** - dos *onze* atendimentos, mais 3 sessões de avaliação e uma reunião com a médica, professora e pais, verificaram-se os seguintes resultados:

Melhora na noção de imagem corporal

Desenvolvimento da relação do corpo com as dimensões espaciais e organização do sentido do movimento da visão, levando à aquisição de noções espaciais.

Incremento do processamento auditivo, do sentido do equilíbrio e do vital, pela harmonização da respiração, especialmente nas crianças que apresentavam problemas como bronquite, asma e rinite.

Melhora da auto-estima, da relação, participação e integração no grupo.

### **Bibliografia:**

Ayres, A. Jean, *Sensory Integration and the Child*, Western Psychological Services, 12<sup>th</sup> printing 1995

Mc Allen, A.E., *Método Extra Lesson*, vols. I e II, Ed. Antroposófica, 1<sup>a</sup>- ed. 2004 e 2006

Mc Allen, A.E., *Sleep An Unobserved Element in Education*, Rudolf Steiner Press, 2a- ed. 2004.

Lievegoed, B., *Desvendando o Crescimento*, Ed. Antroposófica, 2<sup>a</sup>- ed. 1996

König, K., *Os Três Primeiros Anos da Criança*, Ed. Antroposófica, 3<sup>a</sup>- ed. 2002

Steiner, R., *Antropologia Meditativa*, Ed. Antroposófica, 1<sup>a</sup>- ed., 1997

Steiner, R., *Curso de Pedagogia Curativa*, FEWB ed., 1<sup>a</sup>- ed. 2005

Steiner, R., *A Atuação do Cosmo na Formação do Organismo Humano*, Ed. João de Barro, 1<sup>a</sup>- ed. 2004

### **(translation)**

**Summary** - Qualified professional, with individual clinical experience developed a proposal to work therapeutically with children, based on similar experiences made in some European countries and the U.S.A.

**Objectives** - To validate the possibility of preventive therapeutic intervention of children in groups, with times of short duration. To verify the exercises that make possible this type of attendance, with maintenance of the effectiveness and the intended results.

**Method** – Children chosen from the Favela school. Envoy letter of introduction of the work and questionnaire to the parents, with respective order of authorization. Individual evaluation of the children as described in “The Extra Lesson” We work in 2 groups: for difference of ages and common therapeutic necessities. Sessions of 45 minutes for each group, once a week. Seven children need medical consultation. Choice of exercises that take care of to the structural and constitutional necessities of the children, aiming at a global development, presented in two stages: first with exercises of position and/or the movement, and other specific ones for the individual cases; second with painting exercises. Final re-evaluation.

**Results** - of the eleven sessions, more 3 sessions of evaluation and a meeting with the doctor, teacher and parents, had verified the following results: Improvement in the notion of corporal image. Development of the relation of the body with the spatial dimensions and organization of the direction of the movement of the vision, leading to the acquisition of space slight knowledge. Increment of the auditory processing, of the direction of the balance and the vitality, for the harmonization of the breath, especially in the children who presented problems as bronchitis, and asthma. Improvement of self esteem, of the relation, participation and integration in the group.

One of the colleagues from Brazil reported spontaneous by the following E-mail:

Dear Joep,

Here, we finished the first step with the work that you saw, at the Favela community . We had a really great experience with those children and in the last day a magnificent surprise. They invited us to take a picture of the whole group at the classroom, and when we got there they were all in a circle and two girls playing a duet on cellos and the teacher told a beautiful story. It was really touching.

We did new assessments on drawings and saw some good and interesting changes. Now we are trying to write it down and maybe present it at the VIII Congresso de Medicina Antroposófica (congress of anthroposophical medicine) that will take place in November.

We all enjoyed very much that objective form: movements and posture together with art exercises. Thank you for your attention and observations.