

Part 2: Theoretical Background and Further Information

“If I’ve lost my body,
 I’ve also lost myself.
 If I find my body,
 I find myself as well.
 If I move,
 I live – and move the world”
 (V. Iljine)

Humans have a basic need to **exercise**. Children in particular generally associate playing and exercise with enjoyment, pleasure and satisfaction. Children explore the world through movement and observation. We have acquired our basic (learning) experience, which is of crucial importance for living in society, for developing the body and mind, by actively engaging with our surroundings. The child also encounters and experiences himself as being able to influence this active and playful engagement. He recognizes his own strengths and weaknesses, is able to judge himself better and accept himself, the games teach him to master and control his movement and how to deal with others (body = means of expression and communication). This gives him an initial idea of his own abilities. Children learn by experimenting and testing that they have created something themselves and have abilities of their own. They experience that they can “make their own changes” to the game and “make their own decisions” about things that happen in the game, and consequently influence the outcome. This feeling gives them the basic self-confidence that they require when they are under pressure to perform.

The sense of achievement in the area of exercise also contributes to increased confidence in their own ability, and boosts their self-confidence and self-esteem. A child needs the sense and awareness of his body that he acquires through exercise to develop an image of himself – for his own identity.

Zimmer writes in her manual on physical education: “Whether a child regards himself as “strong” or “weak”, the traits he ascribes to himself, how he judges himself and the expectations he has of himself - all depend on the image that a child has of himself. It stems from the experience that the child has had in the past of his achievements, abilities and behavioural patterns. Every individual consequently develops a set of assumptions about himself during the course of his life.”

During exercise the child also learns about a variety of forms of social action by joining in exercise games. He learns to develop his own social intelligence, which he needs to be able to play with other children and groups and in order to act. He learns to get along with others and to accept them, to tolerate them and to express his own wishes and needs in an appropriate manner. Language therapists have been calling for more exercise for children for a long time as language and exercise are also closely linked and exert a mutual influence. Brain research has made enormous progress in recent years. The Israeli neurologist Raz has for example demonstrated that balancing games can help children with poor reading skills.

The precondition for the awareness of one’s own body is a heightening of the senses. Sensory perception that functions well will make the child aware of what is happening in his own body and when his body comes into contact with his surroundings. Physical experiences are thus closely linked to sensory perception (visual, tactile, auditory, vestibular and kinaesthetic).

The experience of the physical possibility of expression, control of physical tension, the experience of exhaustion and fatigue, as well as the enjoyment of rest and relaxation are some of the most important experiences that children can have in exercise situations. Exercise is thus the basis for human development and is the basis of all capacity to act.

**“Exercise is the gateway to the world – physical experience
as worldly experience”**
(Miedzinski)

The call for more **exercise in school** is not new. It appears to be more pressing than ever nowadays. The ailments caused by a lack of exercise have assumed alarming proportions in adolescents (cardiovascular problems, overweight, coordination and foot problems). The back problems that are so typical in adulthood are now beginning to develop in childhood as a result of a lack of exercise.

Educational reformers such as Montessori, Freinet, Steiner and many well-known, innovative thinkers in the field of learning research (Feldenkreis, Ayres) emphasise the importance of exercise in the learning process. Dennison stresses that “exercise is the gateway to learning” and Hannaford writes in her book “Exercise – The Gateway to Learning”, “Exercise is absolutely essential for learning. Exercise awakens and activates our intellectual abilities. Exercise integrates and incorporates new information and experience in our neural networks. And exercise is the precondition for expressing what we have learned, our understanding, and our own self through our actions.”

More recent research work helps us to understand how exercise directly benefits the nervous system. Hannaford states, “Muscular activities, especially coordinated movements, appear to stimulate the production of neurotrophines. They are natural substances that stimulate the growth of nerve cells and increase the number of neural connections in the brain.”

Psychological studies of memory conclude that learning matter is probably double coded through simultaneous movement and may be reliably recalled from the long-term memory. Exercise also promotes the blood flow to the brain, activates the brain and increases the supply of oxygen. Dennison developed brain gym exercises, which enable pupils to gradually observe and learn more holistically. The exercises target and activate the brain integration mechanism (essential for optimal learning).

“They wanted the head, but the whole child came to school”
(Author unknown)

When exercise at school is mentioned it is sports lessons that initially spring to mind. This was the case for a long time. However, the new school sports concept is based on the supposition that sports lessons are not sufficient to compensate for the existing lack of exercise – even if children everywhere were given four lessons a week. Additional exercise lessons are therefore absolutely essential.

Despite many endeavours by teachers, such as

- open form of teaching;
- realistic teaching matter;
- action-oriented methods;
- adequate pacing in terms of learning psychology;

which are designed to move away from long periods of sitting in the classroom, with its harmful effects on health, it is still observed that children sit down for too long on many days. Work phases in which the form of teaching by its very nature provides little opportunity for exercise itself are of course inevitable. Such lessons exist and it is not possible to organise them differently on the whole. If the teacher ensures that there is an exercise break in such situations, children will find this to be beneficial and stimulating.

These **exercise breaks** are always necessary when certain forms of teaching do not permit sufficient exercise over a long period. This is why it is important that not only

sports teachers, but all teachers, are aware of the beneficial effect of exercise for all “pupils who are compelled to sit”.

Leaving aside individual forms of **sitting**, we have always had a poor compromise between the anatomical shape of the spine and the relaxed skeletal muscles when we are sitting. The two are not compatible, sitting either means extremely hard work for the muscles with very little pressure on the spinal posture or relaxed muscles and a strained spinal posture. Sitting upright is the most beneficial sitting position for the spine, but it requires the muscles to work very hard. The muscles consequently require strengthening to achieve this for long periods without tiring. We must always bear in mind that sitting gives the semblance of a resting position, but it essentially involves hard work and creates restlessness.

As the posture and muscular apparatus of the elementary schoolchild is not yet fully developed, it is often too much for him to sit quietly after just one lesson. It is important to change sitting positions quite frequently so that other joint positions and groups of muscles are used. Different seating arrangements (seat wedge, seat cushion, kneeler, chair, seat ball) may also be used for this purpose and alternated. Exercising while seated also helps restless children to concentrate better. Learning requires motivation, interest and exercise – and not absolute stillness and sitting quietly. It is also important to repeatedly make use of opportunities for playful exercise (e.g. movement games).

Boys are usually constantly on the move. They need space and the opportunity to test and explore their physical strength. Pleasure and enjoyment of exercise, of physical strength are reflected in the expression of their physical energy. Romping is an indication of their essential needs and their vitality. It is unfortunate that even today powerful, physical confrontation and typical youth games are suspected of aggression and the beginning of spiralling violence. In exercise situations boys frequently express themselves emotionally, they experience enjoyment of their own bodies and also like to act out this physicality. Feeling their own strengths and pitting their strengths against others are behavioural patterns that are typical for boys, and we should count this as one of their strengths, even if acting out physicality is sometimes accompanied by activities that cross the boundaries.

Provision of exercise designed specifically for boys is designed to take individuality into consideration and support the various wishes and needs of the boys (e.g. for competition and success as well). They have active, performance-related aspects as well as passive aspects. As beating others is all that counts for many boys, the correct approach is to vary performance and success in the game units and to put them into perspective and reflect on them. Coexistence and antagonism provide a variety of approaches to action. Teaching boys to be aware of their limits and the limits of feasible aggression is one of the main tasks of exercise-oriented youth work. Youth work must always be seen as part of the development of the coeducational school based on gender awareness.

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