

# **The Treatment of Neurologically Impaired Children Using Patterning Movement Therapy**

## **Sensory Integration Therapy for Neurological Rehabilitation using Movement Therapy in the school environment.**

The basis of a movement therapy programme being used in school environments dedicated to the education of special needs children has been established within the Westminster Governments' Department for Education and Skills.

In their document "*Planning, teaching and assessing the curriculum for pupils with learning difficulties*", accessible via [www.nc.uk.net/ld/index.html](http://www.nc.uk.net/ld/index.html) they offer the following guidance;

Physical education; Opportunities at Key Stage 1

Much of the programme of study at Key Stage 1 is relevant to pupils with learning difficulties. With modification, it can provide stimulating and challenging learning opportunities. All pupils can contribute in group work with others at their own level of ability.

The document suggests pupils explore basic body movements and actions using different parts of their bodies. To acquire and develop skills, suggesting, crawling, sliding, rolling, moving backwards and forwards. To select and apply skills, tactics and compositional ideas, be helped to follow and respond to simple instructions for example stop and start.

At Key stage 2, the document suggests listening and responding to action words, for example, walking, marching on the spot. Suggesting, as part of games activities, ball games, catching, throwing, on the floor foot skills of passing, dribbling. Throwing and catching bean bags, all as part of hand eye coordination programme, to develop binocular vision.

The Welsh Assembly Government, in their recently published guidance document "*Routes for learning*", Crown copyright 2006, reference AC/GM/0612, April 2006, affirms that, "This guidance document, written to support the use of the Routes for Learning materials, offers an overview of the main theories and background information, underpinning the effective teaching and assessment of learners with profound, and Multiple Learning Difficulties". In the Additional Guidance section, the document suggests that therapies, including movement therapy, and occupational therapy to address sensory impairment, could be included in the curriculum design. The rationale for this is explained in the premise that inhibiting factors in the student's ability to learn is irrefutably connected to sensory impairments exhibited by students with learning delay. The document outlines the reasons for the sensory impairments linked to retained inhibitive reflexes. Addressing these inhibitive reflexes being the key to improved learning ability.

**It is essential to recognise that the physical exercise components of the DfES document, and movement therapy in the Welsh Document are the core elements of Delacato Therapy, evolved from the ideas of neurologist Dr Temple Fay and propounded in his paper *The Origin of Human Movement*, presented to the Fourth Annual Institute in Psychiatry and Neurology April 1954 and published in Amer. J. Psychiatry 111:644-652,1955.**

In the published work "*Using a developmental movement programme to enhance academic skills in grade 1 learners*" Fredericks, Kokot, Krog, Teacher Education, University of South Africa, Pretoria, Republic of South Africa, describe the outcomes of a rigorous experimental programme to associate the benefits of physical exercise movement to cognitive learning and academic skills and investigate the efficacy of a movement programme on the academic skills of early learners

In their opinion "The results of the pre-testing and post-testing indicate that the learners of the experimental group showed a significant improvement in spatial development as well as in reading and mathematical skills, compared to the learners in the control group, free-play group and educational toys group".

In support of the rationale behind their experimental programme, the authors cite Summerford, C. (2001). *What is the impact of exercise on brain function for academic learning?* Teaching Elementary Physical Education, 12(3): 6-8.” that physical education is often seen as a frill, and has been discontinued in many South African schools, which might be a misguided kind of thinking “

The authors, drawing on the works of Kephart, (1975). *The slow learner in the classroom*. Columbus, OH: Merrill, Ayres, (1979). *Sensory integration and the child*. Los Angeles, CA: Western Psychological Services. Delacato, (1959). *The treatment and prevention of reading problems*. Springfield, IL: Charles C. Thomas. . (1974). *The ultimate stranger, the autistic child*. Novato, CA: Academic Therapy, and the recent works, brain research of Pica, (1998). *Movement and the brain: moving and learning in early childhood*. Teaching Elementary Physical Education, 9(6): 18-19, De Jager, (2001). *Breingim*. Kaapstad: Human & Rousseau, and others suggest, “in effect, that the body, as a sensory-motor response system, causes the brain to learn and thus to organise itself”.

The premise that movement (physical education programmes) is the sole mechanism for effective remedial action has to be viewed with caution. Feigley, (1990), *Should schools eliminate mandating physical education classes?* School Administrator, 47(2): 15, 17, 20. proposes that physical education programmes need to more than mere physical fitness regimes. Likewise according to Fredericks et al, Corrie and Barratt-Pugh, (1997). *Perceptual-motor programs do not facilitate development: why not play?* Australian Journal of Early Childhood, 22(1): 30-36, report on studies showing that certain perceptual motor training was not an effective intervention technique for academic cognitive or perceptual-motor variables. The results show little effect in any developmental domain, even on children's gross motor skills. Furthermore, the programmes made little difference to the reading, arithmetic, language or spelling of children with learning difficulties or of normally developing children. However, even though it may initially seem that Corrie and Barratt-Pugh do not accept the theory that movement leads to learning, they do state that it is not the importance of perceptual-motor development that is disputed, but the way of supporting and facilitating that development that is critical.

According to the authors Fredericks et, al a sensori-motor movement programme should be aimed at the root cause of learning difficulties. On the basis that vestibular, proprioceptive, tactile visual and or auditory systems are dysfunctional, the child will fail in its attempts at academic work. Kokot,S.J. (2003a). *Diagnosing and treating learning disabilities in gifted children: a neurodevelopmental perspective*. Gifted Education International 17(1): 42-54.

To read the full transcript of the study carried out by the University of South Africa, visit web site [www.ilt.co.za/articles3.html](http://www.ilt.co.za/articles3.html).