

Progress in the balance

Sophie Chalmers finds out about a rhythmic exercise programme that is helping children achieve academically

Jasmine (not her real name) is six. She is able to catch not just one, but two small balls whilst standing unaided on a balance board.

This is a recently acquired skill. Jasmine was born prematurely, contracted meningitis soon after birth and had a stroke in her early years, all of which have combined to leave her with severe developmental delay, as well as severe visual impairments, and severe hearing, coordination, gross and fine motor control difficulties. Her balance used to be so bad that when she sat on a balance board in her first session with Usha Patel, a learning difficulties therapist in London, she almost tipped

over backwards.

So what brought about this remarkable transformation?

Rhythmic exercise

The answer lies in Mrs Patel's use of an American programme called Bal-A-Vis-X (balance, auditory, and vision exercises) which she first encountered four years ago.

It comprises 300 exercises rooted in rhythm. They start off simply, become increasingly complex, and require hundreds of midline crossings in three dimensions – side to side, front to back, and up and down. This helps integrate both sides of the brain while simultaneously improving balance and coordination. The

equipment required is fairly basic and includes things like racquet balls, small sand-filled bags and balance boards.

Although the exercises look straightforward, they are in fact addressing the developmental issues that underpin academic success. Developed by retired teacher Bill Hubert over 30 years ago and continually refined ever since, they tackle two core issues that many pupils struggle with: deficiencies in visual tracking and an inability to focus and/or maintain attention. They also help with fine and gross motor skills development and vestibular integration.

After using the programme regularly for several months (many schools in America do it for ten minutes after registration or in PE), pupils tend to find the academic side starts to fall into place more easily. Mrs Patel likens it to 'tuning the body' in the way you would tune a violin before you play it. The results can sometimes be remarkable, as in Jasmine's case.

Pat-a-cake

Balance is a blend of the vestibular, visual and proprioception systems, and in Jasmine's case, all three were compromised. Mrs Patel tailored their sessions to include more verbal instructions to compensate for Jasmine's visual impairments and introduced exercises to pave the way for learning to throw and catch. One of these involved passing small sand-filled bags in a rhythmic pattern. Jasmine said it was a bit like playing pat-a-cake. With each movement Mrs Patel guided her verbally to help her get the timing right.

Jasmine's brain understood the concept but her body was not always able to follow through. With practice, however, and working to her particular strengths, she became competent at passing sand bags across the midline of her body and synchronising her movements.

Over time she graduated from passing sand bags and balls in a sitting position to standing on the board, and then balancing while bouncing and catching a large ball. Despite her reduced vision, she learned where to look for the ball when catching. This training improved her visual tracking and hand-eye coordination. The next step was to help her learn to catch with one hand. This helped her overcome her difficulties in using the right side of her body, which had resulted from the stroke.

Within seven months, she had learned many new skills and her schoolwork was noticeably improving thanks to better fine and gross motor control, better coordination and the ability