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## Effect of a self-developed balance training program in preschool children with developmental coordination disorder

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Children with developmental coordination disorder (DCD) perform poorly in motor skills, postural control and acquisition of balance-related skills. Therefore, they tend to withdraw from participating physical activities. Such situation may end in a vicious cycle of low motor activity and physical unfitness. It is important to find a solution to encourage these children to engage more in physical activities. Wii Fit is a popular game for children. However, the scores of Wii Fit games are not related to the balance ability. To solve the problems on balance training with Wii Fit games, we have developed a balance training system (iBalance) with games-oriented software combined with Wii balance board for training and assessment. 20 preschool children with DCD and 16 typically developing preschoolers (TD) participated in the study. The intervention program was provided 45 min per session, 2 sessions per week and for 4 weeks. The assessment was performed at three-time spots: pre-, post-treatment and 4 weeks follow-up. The results showed positive effects of training after the treatment and the effect lasted 4 weeks. The iBalance is proved to be a potential tool for balance training for children with DCD.

### Biography

Rong-Ju Cherng is a Professor of Physical Therapy in the Department of National Cheng Kung University, Taiwan. She is also acting as the Chairperson of the Institute of Allied Health Sciences of the same university. She has received her BS degree in Physical Therapy, Physical Medicine and Rehabilitation, National Taiwan University followed by MA in Physical Therapy, New York University, NY and PhD in Biomedical Engineering, National Cheng Kung University, Taiwan. She has been teaching both in National Cheng Kung University and the affiliated hospital since 1992. Her area of expertise is pediatric physical therapy. Her research has been focused on the balance control in children with cerebral palsy and children with developmental coordination disorder.

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