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ウィリー技能習得のための平衡点感覚・制御訓練

増澤拓也[1)]・吉田　茂[2)]

Sense- and control-training of the Balance Point for Wheelie Skill Acquisition

Takuya Masuzawa[1] and Shigeru Yoshida[2]

Abstract

The balance point (BP) training method, including sense- and control-training, in acquiring wheelie skills was investigated. Conventional training is based on external criteria given by instructors. BP training can facilitate both the sense of BP as an internal criterion and the control skills using the coordinated movements of the trunk. Male participants were divided into two groups in the same skill level (n=3, for each group). In Experiment 1, Group A practiced BP training and Group B repeated conventional training. In Experiment 2, Group A had no training in order to measure retention, whereas Group B practiced BP training to reconfirm its effects. The wheelie skills of the two groups were analyzed using wheelie duration, backward lean angle of the trunk, and elevation angle of the front wheel, pedaling revolution per minute, and scores for the senses of movement and control during wheelie. Results of Experiment 1 indicated that there were significant positive effects of the training on Group A as compared to Group B, as indicated by wheelie duration, backward lean angle of the trunk, and scores for the sense of movement and control. Results of Experiment 2 indicated that Group A retained the wheelie duration, whereas after BP training, Group B showed the same wheelie duration as Group A. We conclude that BP training is more effective for wheelie skill acquisition than conventional training because it can shift the balance control from a rigid “peripheral-power system” to a flexible “trunk-skill system”.

Key words: internal model, sense of balance point, coordination, dynamic balance

1) 筑波大学大学院 人間総合科学研究科 博士課程
〒305-8574　茨城県つくば市天王台1-1-1
2) 筑波大学大学院 人間総合科学研究科
〒305-8574　茨城県つくば市天王台1-1-1
連絡先：増澤拓也
E-mail: masuzawa@shinri.taiiku.tsukuba.ac.jp

1 Doctoral program in physical education, Graduate school of comprehensive human sciences, University of Tsukuba
1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8574
2 Graduate school of comprehensive human sciences, University of Tsukuba
1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8574
Corresponding author: Takuya Masuzawa