

研究報告

垂直跳びテストのチョークジャンプ法とベルトジャンプ法による
パフォーマンスの比較

Comparison between two different vertical jump methods from the view point
of their performances

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Abstract

The present study aimed to know the differences between two different vertical jump methods ; so called 'chalk jump' and 'belt jump'. The subjects consisted of 40 males and 20 females, thus 60 in total. All subjects jumped by both methods and the differences in performance (vertical height jumped) were measured. The differences between two jumping methods were resulted in a significantly greater in 'belt jump' than in 'chalk jump' in the females. However, in the male group with more (twice) subjects than females, have shown no significant difference between two methods. The present study is not concerned with the differences between gender differences, but between two different jumping test methods. For this reason, the all data including males and females were plotted in the same figure to see the correlation between both tests. The result showed that both tests are so closely related ($r = 0.819, P < 0.001$). For this result, we concluded that the 'chalk jump' and 'belt jump' would give virtually the same result in performance and no serious problem may take place due to different methods used.

キーワード 垂直跳び, チョークジャンプ, ベルトジャンプ
vertical jump, chalk jump, belt jump

1 研究目的

体育学の分野で最初に垂直跳びテスト (vertical jump) を提案した米国のSargent, D.A. (1921) は, このテストが広義の体力を意味するPhysical Efficiencyの評価法であるとしたが, その後Sargent, L.W. (1924) が垂直跳びの特性を理論的・統計的に詳細に検討した結果, 垂直跳びには素早い筋収縮が不可欠であるところ

から, 成功裏に試技を行うには単なる筋力だけでなく力学的パワー (power) が必要であるとされ, 以来, McCloy (1932) やCurton (1947) の体力テストの中に垂直跳びテストがpower testとして位置づけられた. 第二次世界大戦後, わが国では米国の体力テストを参考に, 文部省スポーツテスト (松島, 1964) が作成され, power testが「瞬発力テスト」, vertical jumpが

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