

高中籃球聯賽男甲級球員比賽

移動距離與速率之研究

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摘要

本研究主要在探討我國高中籃球聯賽男甲級球員比賽中移動距離與速率。運用攝影機（固定機位）現場拍攝2009年高中籃球聯賽優秀選手，把影像資料輸入到Kwon 3D影像分析系統，對選手在比賽時的移動距離、速率、時間進行分析。受試者為三名優秀的高中籃球選手，分別是松山高中中鋒桑一慶；泰山高中前鋒周儀翔；能仁家商後衛陳貴祥。以敘述統計來比較後衛、前鋒及中鋒選手在比賽時所移動的距離及速率的特性。結果如下：1. 前鋒周儀翔在比賽時的移動距離為6215.85公尺，在比賽中極慢速率($S < 1$)所占百分比為43.8%，慢速率($1 \leq S < 3$)所占百分比為43.8%，中等速率($3 \leq S < 5$)所占百分比為10%，次極限速率($5 \leq S < 7$)所占百分比為2.1%，極限速率($S \geq 7$)所占百分比為0.3%。2. 中鋒桑一慶在比賽時的移動距離為5248.70公尺，在比賽中極慢速率($S < 1$)所占百分比為62.6%，慢速率($1 \leq S < 3$)所占百分比為30.1%，中等速率($3 \leq S < 5$)所占百分比為6.5%，次極限速率($5 \leq S < 7$)所占百分比為0.7%。3. 後衛陳貴祥在比賽時的移動距離為6539.54公尺；極限速率($S \geq 7$)所占百分比為0.0%，在比賽中極慢速率($S < 1$)所占百分比為51.1%，慢速率($1 \leq S < 3$)所占百分比為40.4%，中等速率($3 \leq S < 5$)所占百分比為7.6%，次極限速率($5 \leq S < 7$)所占百分比為0.9%，極限速率($S \geq 7$)所占百分比為0.1%。比賽時間內受試者每分鐘的移動距離在164~169公尺之間，不同位置的選手並無明顯的差別，顯示全方位的體能訓練計畫對於不同位置的選手等同重要。本研究有助於瞭解我國高中籃球聯賽男甲級球員比賽中移動距離與速率，並作為改進籃球運動員體能與速度的參考。

關鍵詞：籃球、移動距離、移動速率

Moving Distance and Speed Profile of Different

Position Players in High School Male Basketball Competition

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Abstract

Increasing participation rates for high school male basketball necessitate a clear understanding of specific fitness parameters for basketball athletes with different playing positions. However, limited sport-specific information is documented. This study aimed to investigate the moving distance (MD) and average speed (AS) profile of the forward, the center and the guard. The competition profile of three High School Basketball League Men's Divisions I basketball players were filmed and served as subject to provide current data for this specific athlete group. A descriptive analysis was used to assess competition variables, including MD and AS. Results demonstrated MD and AS for the forward, the center and the guard were 6215.85m and 163.58m/min, 5248.70m and 169.31m/min and 6539.54m and 163.49m/min, respectively. A further analysis of speed profile during competition indicated that the forward spent 43.8% in very slow speed (VSS, $S < 1\text{m/s}$), 43.8% in slow speed (LS, $1\text{m/s} \leq S < 3\text{m/s}$), 10% in middle speed (MS, $3\text{m/s} \leq S < 5\text{m/s}$), 2.1% in sub-maximal speed (SMS, $5\text{m/s} \leq S < 7\text{m/s}$), and 0.3% in maximal speed (MS, $S > 7\text{m/s}$); The center spent 62.6% in VSS, 30.1% in LS, 6.5% in MS, 0.7% in SMS, and 0.0% in MS; The guard spent 51.1% in VSS, 40.4% in LS, 7.6% in MS, 0.9% in SMS, and 0.1% in MS. No major different in AS indicated that the competition intensity for different position players were similar and therefore, a total conditioning training program is equally essential to all the basketball players with different positions.

Key words: basketball, moving distance, speed