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Some Physical Measurements and its role in Vital Capacity "Applied Study" for clubs players in Northern of Handball Selected Tip top

<u>Abstract</u>

Many sports activities which depend on sport movement and its relation with features ,that may determined through various ways ,for studying speciality of human movement and the physical appearance. And from these phenomena , physical appearance and vital capacity that affect on athletic achivement.Physical measurement considered as one of the important factors in practicing any physical activity which demands physical features that differs from the other activity ,and the grogress with handball activity demands characterizing with some abilities and specification such as physical measurements and functional variables (Vital Capacity) which effect on each

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other. And ,them its influence upon sport performance level ,from this point importance is rised on the study of some physical measurement and its effect on Vital Capacity through analysing its trajectories that is to say the direct and indirect effect for these measurements on Vital Capacity by using the rule of incline (trajectory analysis) and it is an applied study . The purpose from it is to know which measurements is more effective on vital capacity.

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2-1   :

2-1-1   :

2-1-2   :

(   )   16.5

18   (2003   543).

2- 1- 3   :

(2003   63).

2-1-4   :

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(4600)

(30 -40)

(6-7)   (2000   281)

(1997   118)

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4-1-2 :

(Path   analysis)

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" (Balock, 1961)   (146 1981   )

(Balock, 1961, 6) "

Wright ,Simon, Blalock,

. Kerlinger

5-1-2   **Pji**:

(j)   (i)

(147 1981   ) (beta weight ,Bjs)

" (Moser and Kaltion ,1972)

(paths)

.(Moser and Kaltion ,1972,460)

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1-3   :   .

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((73)

(2010/2009)   (30)

(6)

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3.   (   ).

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3-**5**- 1   :

(2003   259).

3-5-2   :   (   )

(2003   256).

3- **5**- **3**   :

(18- 30)   .

3-5-4   :

•( )

(79 1996)

( )

4- :

4-1 :

X_1 X_2 X_3 (y)

(30) .

(1)

	X_1	X_2	X_3	Y
X_1	1	0.36	0.54	0.63
X_2	0.36	1	0.76	0.96
X_3	0.54	0.76	1	0.70
Y	0.63	0.96	0.90	1

$r_{10} = 0.63$ $r_{12} = 0.36$ $r_{23} = 0.76$

$r_{20} = 0.96$ $r_{13} = 0.54$

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• : (treadmill)

12.8 / %20(Adams, 2002, 130-133).

$r_{30} = 0.90$

$Y \quad X_3 \; X_2 \; X_1$

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$RP = r$　　　　　　　　　:
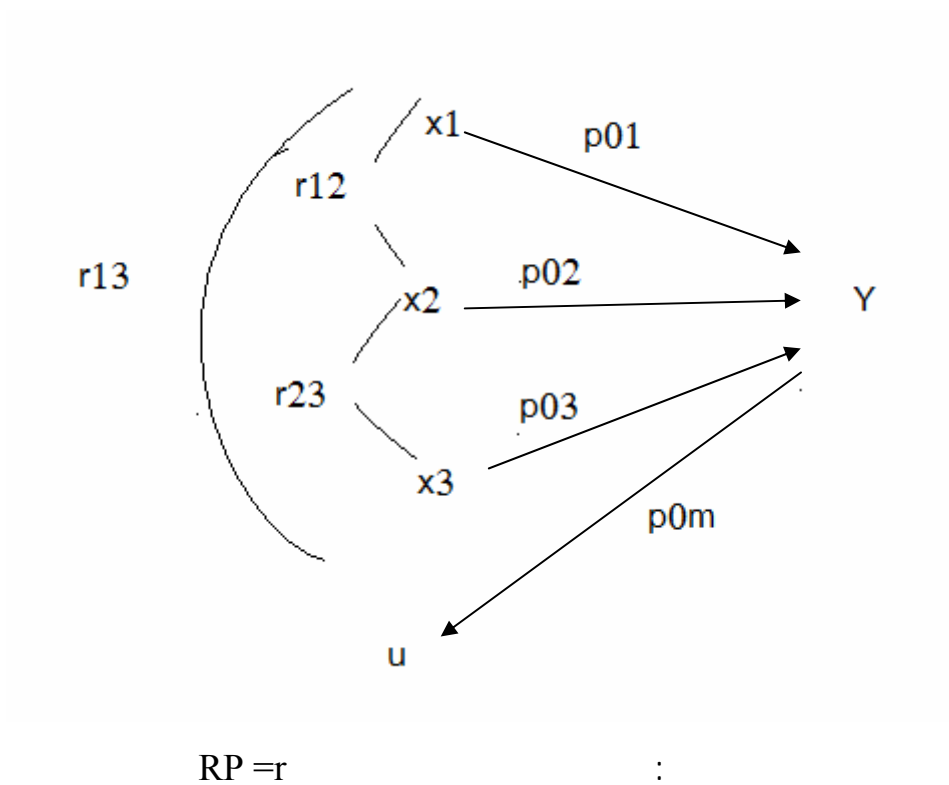
$$
\begin{pmatrix} 1 & 0.36 & 0.54 \\ 0.36 & 1 & 0.76 \\ 0.54 & 0.76 & 1 \end{pmatrix}
\begin{pmatrix} p01 \\ p02 \\ p03 \end{pmatrix}
=
\begin{pmatrix} 0.36 \\ 0.96 \\ 0.90 \end{pmatrix}
$$

.

$$P = R^{-1} r = \begin{matrix} 0.251 & \hat{P}_{01} \\ 0.684 & \hat{P}_{02} \\ 0.245 & \hat{P}_{03} \end{matrix}$$

$R_{20}(123) = P_{01}r_{10} + P_{02}r_{20} + P_{03}r_{30}$
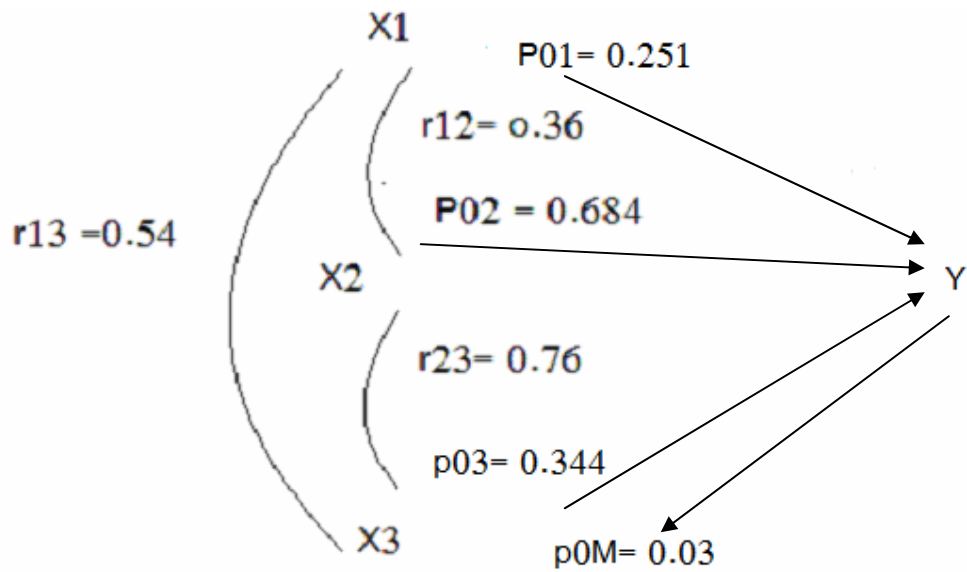
$$P0\mu = M = \sqrt{1 - R2}$$

μ :

$= (R_{20}(123))$

$R_{20}(123) = P_{01}r_{10} + P_{02}r_{20} + P_{03}r_{30}$
$= (0.25)(0.36) + (0.684)(0.96) + (0.244)(0.90)$
$= 0.040 + 0.656 + 0.214$
$R_{20}(123) = 0.965$

$$M = \sqrt{1 - 0.965} = 0.035$$

:

$2-4$:

- (X_1)

$P_{01} = 0.251$ (X_2)

$R_{12}(P_{02}) = (0.36)(0.684) = (0.244)$

(X_3)

$R_{13}(P_{03}) = (0.54)(0.24) = (0.129)$.

(X_1)

$0.251 =$

$(X_2) = 0.244$

$(X_3) = 0.129$ $(0.624) =$

X_1 Y.

(X_1) (X_2) (X_1)

(X_2) (X_3)

X_2 Y X_3 Y

(X_2) -

(X_2) $P_{102} = 0.68$

$R_{12}(P_{01}) = (0.36)(0.25) = (0.09)$

(X_3)

$r_{23} P_{03} = (0.244)(0.76) = 0.185$

X_2

$0.68 =$

$0.185 = X_3$ $0.09 = X_1$

X_2 (0.955)

. Y

(X_3) -

(X_1) $P_{03} = 0.68$

$r_{13}(P_{01}) = (0.54)(0.25) = (0.135)$

X_2

$R_{23}(P_{01}) = (0.78)(0.68) = (0.516)$

$r_{03} = 0.891$ X_3

y $X_1, X_2, X_3,$ (2)

	y X_1 -1
0.25	P_{01} = –
0.244	$r_{12}P_{02} = X_2$ –
0.129	$r_{13}P_{03} = X_3$
0.628	r_{10}
	y X_2 -2

0.68 0.09 0.185	P_{02} = — $r_{12}P_{01} = X_1$ — $r_{23}P_{03} = X_3$
0.955	r_{20}
0.24 0.135 0.516	y X_3 -3 P_{03} = — $r_{13}P_{01} = X_1$ — $r_{23}P_{02} = X_2$
0.891	r_{30}

X_2

. X_3 X_1

X_1 X_3

X_2 .

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1- 0.25

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2- 0.684 0.244

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3- 0.76

0.36

0.54

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2. (1981) ، .

3. (2003) 1 .

4. (2000) .

5. (1997) .

6. (1996) .

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