

EVALUATION STANDARDS OF COMPETING AND PHYSICAL FITNESS LEVEL AND THE RATIO OF THE IMPACT OF PHYSICAL FACTORS ON MALE SHUTTLECOCK KICKING ATHLETES' COMPETING LEVEL

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Abstract:

By means of document references, interviews, pedagogical observation, pedagogical examination and mathematical statistics, we determine the ratio of impact of physical factors to young male shuttlecock kicking athletes as the basis for determining the content of the training plans, as well as direct, adjust and manipulate the training process of the athletes in a logical and scientific way.

Key words: Ratio of impact, physical factors, competing level, shuttlecock kicking athletes.

INTRODUCTION

Vietnamese athletes have gained tremendous success in international competition plays a vital role in making shuttlecock kicking a top priority of the national physical education and sports field.

This proves that Vietnam possesses a decent training system. Nevertheless, so as to achieve higher and stable success, the completion of the athletes training system has always been issued to shuttlecock kicking professionals of Vietnam

Thus, the first step for a successful training process is building evaluation standards of competing and physical fitness level together with the ratio of impact of physical fitness factors on male shuttlecock kicking athletes' competing level.

RESEARCH METHODS

To solve the tasks, the topic used these methods below: Document references; Interviews; Pedagogical observation; Pedagogical examination; Mathematical statistics.

RESULTS AND DISCUSSION

In order to produce a precise result, we first conducted physical fitness and competing tests

for young male shuttlecock kicking athletes through synthesizing and analyzing documents relating to making tests for sports in general, for shuttlecock kicking in particular. At the same time, we carried out interviews with top experts as well as observed and supervised the training process and evaluated the young shuttlecock kicking athletes in provinces with strong shuttlecock kicking movement and high achievements.

After a thorough research, we have selected 21 physical fitness level tests and 5 competing level tests for young shuttlecock kicking athletes.

With the results obtained, we conducted test and survey of the allocation of examples collection. Then we built up the standards according to the C scale.

Table of evaluation of physical fitness preparation and competing level of young male shuttlecock kicking athletes in each norm is presented in table 1 and 2.

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Table 1. Evaluation scoreboard of physical fitness level for young male shuttlecock kicking athletes

Test	Score										
	10	9	8	7	6	5	4	3	2	1	0
Vertical split (cm)	1.72	1.84	1.96	2.08	2.2	2.32	2.44	2.56	2.68	2.8	2.92
Horizontal split (cm)	4.99	5.15	5.31	5.47	5.63	5.79	5.95	6.11	6.27	6.43	6.59
Forward crunches (cm)	4.4	4.6	4.9	5.2	5.4	5.7	5.9	6.2	6.5	6.8	7.1
High volley (cm)	31.8	33.7	35.6	37.4	39.3	41.2	43.1	44.9	46.8	48.7	50.6
30m running with sprint start and 360 degrees spin in the middle following signals. (s)	4.7	5	5.3	5.5	5.8	6.1	6.4	6.7	7	7.3	7.6
60s passing (l)	26	25	24	23	22	21	20	19	18	17	16
Raising (l)	154	149	144	139	134	129	124	119	114	109	104
30m running with sprint start (s)	3.52	3.71	3.9	4.09	4.28	4.47	4.66	4.85	5.04	5.23	5.42
30s straight-instep kicking (l)	70	68	65	63	61	58	56	54	52	49	47
30s flicking (l)	79	76	74	71	69	66	64	61	59	56	54
30s soles kicking (l)	53	51	49	47	45	43	41	39	37	35	33
30s serving (l)	85	82	79	76	73	70	67	64	61	58	55
On-the-spot long jump (cm)	261	254	247	242	235	228	221	214	207	200	193
Straight-instep kicking (m/s)	10.6	10.2	9.8	9.4	9	8.6	8.2	7.8	7.4	7	6.6
Flicking (m/s)	9.5	9.2	8.8	8.3	7.9	7.5	7.1	6.7	6.2	5.8	5.4
Soles kicking (m/s)	8.4	8.1	7.8	7.5	7.2	6.9	6.6	6.3	6	5.7	5.4
Serving (m/s)	12	11.6	11.2	10.8	10.4	10	9.6	9.2	8.8	8.4	8
5-minute running depending on physical condition (s)	1490.7	1456.4	1422.1	1387.8	1353.5	1319.2	1284.9	1250.6	1216.3	1182	1147.7
2-minute rope skipping (l)	389	377	365	353	341	329	317	305	293	281	269
1 minute straight-instep kicking (l)	113	109	105	101	97	93	89	85	81	77	73
1 minute flicking (l)	132	128	123	119	114	110	105	101	96	92	87

Table 2. Evaluation scoreboard of competing level for young male shuttlecock kicking athletes

Criteria	Score										
	10	9	8	7	6	5	4	3	2	1	0
Moving rate (%)	>0.81	0.81	0.79	0.77	0.74	0.72	0.7	0.67	0.65	0.62	<0.62
Attacking rate (%)	>0.49	0.49	0.47	0.46	0.44	0.43	0.42	0.4	0.39	0.37	<0.37
Defending rate (%)	>0.33	0.33	0.32	0.31	0.3	0.29	0.28	0.27	0.26	0.25	<0.25
Attacking efficiency (%)	>0.30	0.3	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	<0.22
Defending efficiency (%)	>0.86	0.86	0.83	0.8	0.77	0.74	0.71	0.68	0.65	0.62	<0.62

From the above results, we identify the pair correlation and multifactorial correlation between physical fitness groups and the competing ability of young male shuttlecock kicking athletes. At the same time, we determine the impact ratio of physical factors on the athletes' competing ability. Specific results are shown in Table 3.



Development of physical fitness has a great influence on the overall performance of athletes, including the shuttlecock kicking subject

Table 3. The impact ratio of physical factors on the athletes' competing ability

No.	Physical factors	Impact ratio	
		Coefficient	% exchange
1	Flexibility	0.124	12.4
2	Speed	0.158	15.8
3	Strength	0.164	16.4
4	Durability	0.147	14.7
5	Movement coordination	0.193	19.3

The table 3 shows: Physical factors and competing ability of male shuttlecock kicking athletes have a strong correlation with each other. This is shown by the correlation coefficient (r calculate) between physical factors and the competing ability of young male shuttlecock kicking athletes, which are higher than r control at the probability threshold of $P < 0.05$. Multifactorial correlation coefficient $R = 0.87$.

Physical factors have a great impact on the athletes' competing ability (from 12.4% to 19.3%). In particular, the flexibility factor has the lowest impact rate (12.4%), followed by durability (14.7%), speed (15.8%), strength factor (16.4%), and movement coordination has the biggest impact (19.3%).

CONCLUSION

From the above research results, we came to some conclusions below:

1. The competing ability of male shuttlecock kicking athletes is a multi-factorial complex, in which physical factors play a vital role.
2. The study identified 21 physical fitness tests and 5 competing tests for young male shuttlecock kicking athletes.

3. Results of the research have identified a strong correlation between the physical factors and the competing ability of male athletes.

4. Physical factors have a great impact on the athletes' competing ability (from 12.4% to 19.3%). In particular, the flexibility factor has the lowest impact rate (12.4%), followed by durability (14.7%), speed (15.8%), strength factor (16.4%), and movement coordination has the biggest impact (19.3%)

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