



Relative Effect of Health Related Fitness and Skill Related Fitness on Sports Proficiency of Students of Physical Education

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Abstract

The improvement and maintenance of physical fitness or condition is perhaps the most important aim of sports training. Health related fitness test and skill related fitness test were conducted on all students of School of Physical Education who had atleast participated in intercollegiate tournament were considered from the sports proficiency marking table on the basis of their sports achievement. The researcher found a positive relationship of skill related fitness and health related fitness with sports proficiency scores of subjects which is presented in table 2. On the basis of the analysis of the data, shows that no difference exists due to the health related fitness and skill relate fitness on sports proficiency.

Keywords: Relative effect, health related fitness, skill related fitness, sports proficiency, students, physical education.

Introduction

The Physical fitness is the sum total of five motor abilities namely strength, speed, endurance, flexibility and coordinative abilities. These five motor abilities and their complex forms (e.g. strength-endurance, explosive strength etc) are the basic prerequisites for human motor actions. Therefore, the sports performance in all sports depends on a great extent on these abilities. The improvement and maintenance of physical fitness or condition is perhaps the most important aim of sports training. Each sport requires a different type and level of physical condition (specific fitness/condition) and as a result a different type of fitness training is required for different sports. Some sport like distance running requires a very high level of endurance but a low level of other motor abilities. Sports like shooting and archery do not require a high level physical condition¹.

It is almost universally accepted that regular physical exercises or physical fitness enables one to stay physically fit and to sustain the average individual in his daily activities. But if anybody wishes to participate successfully in sports games i.e. aspire to be a champion or to reach the top, he must go for beyond the simple exercises².

In many sports and games, little strength can be developed because the resistance to be overcome is relatively moderate for instance, in table tennis the player overcome only the inertia of a bat. In short if an average individual seeks, physical fitness he would best turn towards exercises and not to specialized participation in games and sports³.

Simply stated one might say that as coaches or as educators we are dedicated to the maximization of human performance in

sports or in life, through the improvement of the human physical fitness or condition.

Physical fitness or conditioning is highly specific according to ones personal status and needs. The Sprinter, the Marathon runner, yachtsmen, footballer, tennis player, gymnast, horse rider, weight lifter, or swimmer, they have their own specific conditioning or fitness requirements. It is accepted, that it has to be cultivated through proper exercised not only during the preparatory stages, but all along one's playing career⁴.

Today the preparation of an athlete for achievement is a complex dynamic state characterized by a high level of physical and psychological efficiency and the degree of perfection of the necessary skills and knowledge of teaching and tactical preparation. An athlete arrives at this state only as a result of a corresponding training sports activity directed at grooming an athlete for an achievement and at steadily enhancing this preparation. May other factor also brought into action in his preparation (means of rehabilitating strength after loads, special nutrition, organization of a generated regime in accordance with the conditions of sports activity etc.). Thus athletes training today is a multi side process of expedite use of aggregate factors (means method and conditions) so as to influence the development of an athlete and ensure the necessary level of preparation⁵.

In available literature there were studies on relationships between physical fitness and sports proficiency of any one game or sport. In this study researcher is motivated find out the relative effect of health related fitness and skill related fitness on the sports proficiency of students of physical education.

Methodology

The subjects for this study were the male students of school of physical education, Devi Ahilya Vishwavidyalaya, Indore (who had at least participated in intercollegiate tournament). Health related fitness test and skill related fitness test were conducted on all students of School of Physical Education who had atleast participated in intercollegiate tournament were considered from the sports proficiency marking table on the basis of their sports achievement.

The test items for health related fitness are as follows: - Twelve minute Run-Walk test - Cardiovascular fitness, - Modified Sit and Reach test – Flexibility, - Pull Ups – Strength.

The test items for skill related fitness are as follows: - Shuttle Run – Agility, - Dynamic Balance test - Dynamic balance, -

Standing Broad Jump - Jumping ability and Legs power, - Nelson hand reaction test - Reaction time, - 50 meters Dash – Speed

For analyzing the relationship between composite scores of scores of skill related fitness and sports proficiency of students of Physical Education and health related fitness and sports proficiency of students of physical education product moment correlation and ‘t’ test was applied.

Results and Discussion

The researcher found a positive relationship of skill related fitness and health related fitness with sports proficiency scores of subjects which is presented in table 2.

**Table-1
 Proficiency Marking Table**

Competition	Marks	Bonus points for position			Category
		I	II	III	
International	30	05	04	03	Senior
	25				Junior
	25				Sub-junior
National	25	04	03	02	Senior
	20				Junior
	20				Sub-junior
State	20	03	02	01	Senior
	15				Junior
	15				Sub-junior
District	15	02	01	00	Senior
	10				Junior
	05				Sub-junior
Combined University	25	05	04	03	Senior
	25				Junior
All India University	25	05	04	03	-
Zonal University	20	04	03	02	-
State University	15	03	02	01	-
State Uni.(Dist. Level)	10	02	01	00	-
Intercollegiate	05	02	01	00	-

It indicates that there exist a significant positive relationship between skill related fitness and health related fitness with sports proficiency of students Physical Education it is also clearly indicated that skill and health related fitness are a contributory factor for improving performance. Both type of fitness had shown a significant relationship with total performance. When composite scores of health related fitness and skill related fitness had been taken for analyzing the sports proficiency it indicated that skill and health related fitness when combined together improved correlation coefficient value with sports performance.

For analyzing the relationship between composite scores of higher 50% subjects base don skill related fitness and health related fitness with their sports proficiency product moment correlation was applied and the findings are presented in table. 3.

When scores of higher 50% subjects (based on skill and health related fitness) were taken the skilled subjects shown a high

significant positive correlation but health related fitness didn't show a significant correlation and it indicates that high skilled subjects are more better in performance than the health related fit subjects.

In indicate that skill related fitness is more dominant for good performance than health related fitness.

When the analysis was done to find the relative effect of health related fitness and skill related fitness on sports 50% subjects based on skill and health related fitness 't' test was applied and findings are presented in table 4.

Table 4 clearly indicate that relative effect of health related fitness and skill related fitness on sports proficiency was not found significant as the 't' value is 1.10 where the required 't' value to be significant with $df(40) = 2.02$

It indicates that no significant difference exists due to the health related fitness and skill related fitness on sports proficiency.

Table-2

Correlation coefficient of skill related fitness, Health related fitness and sports proficiency of students of Physical Education

S.No.	Variable	Correlation coefficient
1	Skill related fitness Vs Sports Proficiency	.31*
2	Health elated fitness Vs Sports Proficiency	.36*
3	Composite score of skill Related fitness and health related Fitness Vs Sports Proficiency	.43*

*Significant at 0.05 level, 't' Needed for significant at 0.05 level, with $df(14) = 0.30$

Table-3

Correlation coefficient of skill related fitness and health Health related fitness and sports proficiency of higher 50% Subjects

S.No.	Variable	Correlation coefficient
1	Scores of Higher 50% subjects based on skill related fitness Vs their sports proficiency	.73*
2	Scores of higher 50% subjects based on health related fitness Vs. their sports proficiency	.35

*Significant at 0.05 level, 't' Needed for significant at 0.05 level, with $df(20) = 0.42$

Table-4

't' ratio for sports proficiency of higher 50% subjects based an skill related fitness and health related fitness

Groups means				
Mean proficiency of higher 53% subjects based on skill related fitness	Means proficiency of higher 50% subjects based on health related fitness	MD	SE _{dm}	't' ratio
480.73	456.56	24.17	21.91	01.10

*Significant at 0.05 level, 't' Needed for significant at 0.05 level, with $df(40) = 2.02$

Conclusion

On the basis of the analysis of the data, shows that no difference exists due to the health related fitness and skill relate fitness on sports proficiency. But the correlation value indicates that skill related fitness is more related than health related fitness with sports proficiency. So it may be concluded that high skilled sports person shows a high correlation with sports performance but the contribution of skill related fitness and health related fitness are equal.

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