ISSN: 2349 - 4891

International
Journal of Recent Research and Applied Studies

Effect of Specific Training Programme on Speed, Quickness and Agility for Inter-Collegiate Men Handball Players

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Received 15th July 2014, Accepted 10th August 2014

Abstract

The purpose of the present study was to investigate the effect of specific training on speed, quickness and agility for inter-collegiate men handball players. To achieve the purpose of the study thirty men handball players were selected from Alagappa University College of Physical Education, Karaikudi, Tamilnadu during the year 2013-14. The subjects' age ranges from 18 to 23 years. The selected players were divided into two equal groups consists of 15 men players each namely experimental group and control group. The experimental group underwent specific training programmed for six weeks. The control group was not taken part in any training during the course of the study. Speed, quickness and agility were taken as criterion variables in this study. Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique 't' ratio was used to analyze the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found due to specific training given to the experimental group on speed, quickness and agility when compared to control group.

Keywords: Specific Training, Handball, Speed, Quickness and Agility.

Introduction

Every one participates in some kind of sports activity or physical training during the course of his life. This training may assume different forms for different individuals. This training may influence physical, physiological and mental fitness of an individual. Physical fitness is a capacity for sustained physical activity. It is the key to success in every walk of life. To understand the concept of physical fitness and adapting a balanced approach to improve your state of fitness, it is important to develop and adopt sensible training habits towards fitness training. Research has revamped the whole concept of sports. Highly technological innovations through contribution from various disciplines, like medicine, engineering, human biology, psychology, biomechanics, exercise physiology etcetera have made the sports field more authentic, glamorous and appealing. Different methods are tried to spout out potential talents. A variety of training adoptions take place in the body that makes it to function more efficiently. Numerous training procedures are in practice to improve each and every physical and motor fitness quality at various levels. These basic training procedures will serve better when utilized with modifications suited to the individuals or a group dealt with. The best training programmed is that which increases the desired quality a higher rate without causing unwanted effects. Now day's sports activities are classified into several areas such as performance sports, physical education, rehabilitation sports, fitness and leisure sports and adventure sports. Performance sports aim at high sports performance and for that, the physical and psychic capacities of sports men are developed through various training means and methods. Most physical movements incorporate the elements of force quickness, duration, complexity and a range of motion to a certain extent. **(Baechle, & Earle, 2000).**

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Methods

To achieve the purpose of the study selected thirty men students from Alagappa University College of Physical Education, Karaikudi, Tamilnadu, India were selected and their age ranged from 18 to 23 years.15 subjects were assigned to an Experimental group and 15 subjects to was randomly control group. The Experimental treatment was given for six weeks. The study was formulated as post-test random group design. One group was assigned the Handball Specific training programmed. The other group acted as a control group.
speed was assessed by 50 metres Dash, quickness was assessed by Human Benchmark reaction time test and agility was assessed Hexagonal Obstacle Test. The "t" ratio was calculated to find out the significance of the

difference between the mean of the initial and final test of the experimental group.

agility for both experimental and control groups were tested by 't' test. The level of significant was fixed at 0.05 levels.

Results and Discussion

The data Retraining to speed, quickness and

Table I. Summary of 't' Ratio on Speed of Experimental and Control Groups

Groups	Mean		Mean Difference	S.D.	Standard Error	't' ratio
	Pre	Post				
Experimental	7.80	7.42	0.38	0.10	0.02	13.93*
Control	7.78	7.76	0.02	0.90	0.23	0.26

*Significant at 0.05 level of confidence.

An examination of table - I indicates that the obtained't' ratio for experimental group was 13.93 for speed. The obtained't' ratio was found to be greater than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be significant. The obtained 't' ratio for control group was 0.26 for speed. The obtained't' ratio was found to be lesser than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be insignificant. The results of this study showed that the control group was statistically insignificant.

Table II. Summary of 't' Ratio on Quickness of Experimental and Control Groups

Groups	Mean		Mean Difference	S.D	Standard Error	't' ratio
	Pre	Post				
Experimental	0.44	0.40	0.04	0.06	0.01	2.61*
Control	0.48	0.46	0.02	0.09	0.23	0.68

* Significant at 0.05 level of confidence

An examination of table - II indicates that the obtained't' ratio for experimental group was 2.61 for quickness. The obtained't' ratio was found to be greater than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be significant. The obtained 't' ratio for control group was 0.68 for quickness. The obtained't' ratio was found to be lesser than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be insignificant. The results of this study showed that the control group was statistically insignificant.

Table III. Summary of 't' Ratio on Agility of Experimental and Control Groups

Groups	Mean		Mean Difference	S.D	Standard Error	't' ratio
	Pre	Post				
Experimental	14.32	12.43	1.89	0.76	0.19	9.60*
Control	14.52	14.43	0.09	0.90	0.90	0.40

* Significant at 0.05 level of confidence.

An examination of table - III indicates that the obtained't' ratio for experimental group was 9.60 for agility. The obtained't' ratio was found to be greater than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be significant. The obtained 't' ratio for control group was 0.40 for agility. The obtained't' ratio was found to be lesser than the required table value of 2.14 at 0.05 level of significance for 1, 14 degrees of freedom. Hence it was found to be insignificant. The results of this study showed that the control group was statistically insignificant.

Discussion and Conclusions

The findings based on 't' test showed significant difference in performances between final (post-test) and initial (pre- test) test scores for specific training and control group. The 't' ratio showed that there was significant difference between experimental groups and control group in performance of speed, quickness and agility that indicate the experimental groups significantly better as compared to control group. This may be due to the one experimental groups under gone a systematic progressive training and the control group have not taken part in any formal training. The results of the study indicates that speed (50mts) dash is improved by specific training group(three sessions per week).specific training shows better improvement than the control group. This is due to the training adapted by the subjects; this clearly shows that specific training is a suitable training method in improving acceleration work like handball players between 20-40 mts and powerful run in the distance. Study by Ryan Ross,(2009) published by the National Strength and Conditioning Association, resisted sprint training increase land-based maximal speed.

The results of the study indicates that quickness is improved by specific training group (three sessions per week). Specific training shows better improvement than the control group. This is due to the training adapted by the subjects; this clearly shows that specific training is a suitable training method in improving quickness work like handball players. Study by Cochrane (2004).

The result of the study indicates that agility hexagonal obstacle run is improved by specific training group (three sessions per week). Specific training showed better improvement than the control group. This is due to the training adaptation, correspondingly agility is supported by RSTG but not too much extend when compared with speed and sprints since agility is a combination of change in direction along with speed, this shows that specific training can also be used for improvement in agility, and acceleration. Thomas Battinelli, (2004). It was concluded that,

1. Participation in six weeks of specific training programmed resulted in Improvement on Speed, Quickness and Agility capacities.
2. There was no significant difference in the control group on speed, quickness and agility.

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Please cite this article as: **Dr.K.Divya. Effect of Specific Training Programme on Speed, Quickness and Agility for Inter-Collegiate Men Handball Players.** *International Journal of Recent Research and Applied Studies*, 2014, 1, 3(6), 26 - 28.