

**Effect of Selected Exercise on the Jumping Abilities of
Badminton Players**

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Abstract

The target of the examination was to resolve the impact of exercises on the jumping abilities of badminton athletes. Thirty (30) male badminton athletes from 16 to 24 years old from DCPE, Amravati were elected for the examination. The data were possessed on standing broad jump of players. Collected data were analyzed through IBM SPSS version 22 software. Each testee was equally dispersed in same strength into two homogenous groups viz. Training (A) and Non-training (B). Training group had training program for a duration of six weeks. Subjects of both groups had their regular physical activities as part of their routine program. A thorough orientation of the training procedure was carried out so that all the selected subjects could put their best performance in the test. The test was administered before the start of the training program and immediately after the completion of the training program at the college campus. To reveal the training outcome, t-test was applied to regulate the significance of the difference among the pretest and posttest of both the testee. The level of significance was set at 0.05. The analysis revealed that the experimental group (A) displayed distinctive improvement in jumping abilities due to six weeks of consistent training program while compared to the control group (B) performance.

Keywords: Exercises, Jump Ability, Badminton Players, Orientation.

INTRODUCTION

Jump is an essential skill required for each badminton player. The performance of players to cover a court in a minimum time is depending upon the varieties of jump in the court. Most of the attacking shot in the badminton can be cover early by jump in the court. Some of the jumps most used by the players are Chinese jump, Scissor jump, vertical jump as well as sideward jump. Practice along with some suitable jumping exercises and training for specific skill may improve significantly in the badminton game.

Statement of the problem

It is celestially accepted that vigorous exercise is essential for any sports activity to exhibit optimum performance, but inquiry is that what should be the appropriate exercises; hence, the researcher stated the study as “Effect of selected exercises on the jumping abilities of the badminton players”.

Purpose of the study

The idea was to detect the effect of some selected exercises on jumping for badminton players.

Significance of the study

- A. It will be helpful to know the effect of selected or specific exercises upon the jumping abilities of the badminton players.
- B. It would also help the coaches, trainers and players to focus on the particular exercises for the development of the jumping capacities of the badminton players.

Hypothesis

It was considered that there would be distinctive benefits of elected exercises on jumping abilities of the badminton player.

Delimitation

- A. The training was restricted to the male Badminton practitioner players of the DCPE, Amravati.
- B. 30 male badminton players were chosen as the subjects.
- C. The age of the athletes was extending from 16 to 24 years.
- D. The training period was restricted to six week, 3 days in a week.

Limitation

- A. The daily program of the subject was not under the control of the researcher as all of them were belonged to physical education courses.
- B. The researcher has no control over the dietary habits of the subjects.
- C. Socio- economic status of the subjects was not considered

MEHODOLOGY

Selection of Subjects

Twenty (30) badminton players from of DCPE, Amravati were chosen as subjects by means of random sampling technique. The age of the testee was ranging from 16 to 24 years.

Selection of the subjects

30 male badminton players of DCPE, Amravati were chosen as testee. The age of the testee was from 16 to 24 years.

Sampling Technique

Simple random sampling method was applied.

Selection of test and criterion measures

Standing broad jump test was applied to test the jumping abilities of the players and score was recorded in centimetre.

Collection of data

The necessary were compiled before the administration of training program (Pre-test data) and immediately after finalization of the training program (Post-test data) on all the selected subjects of experimental as well as control group.

Analysis of Data

The data pertaining to each of the selected subjects were examined statistically by applying independent and dependent t-test so as to decide the significance of difference if any. The level of significance to test the hypothesis was set at .05

Conclusion of the investigation has been shown in the following tables.

Table-1

Description of means, S.D., and t-ratio for the pretest data on jumping abilities of badminton players among the means of controlled and experimental group

Variable	Mean of		Standard Deviation		Mean Difference	Standard Error of mean difference	t-ratio
	Experimental Group	Controlled group	Experimental group	Controlled group			
Jump	43.5	41.65	5.88	5.59	1.85	1.78	1.04 [@]

smash							
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@ not distinctive at 0.05 level tabulated $t_{0.05 (28)} = 2.048$

Table 1 indicates that there is no distinctive difference among the pre-test means of experimental and control group on jumping abilities ($t=1.04$) as the calculated t-value is lower than the tabulated t-value of 2.024. The comparison of mean has been shown in the following diagram:

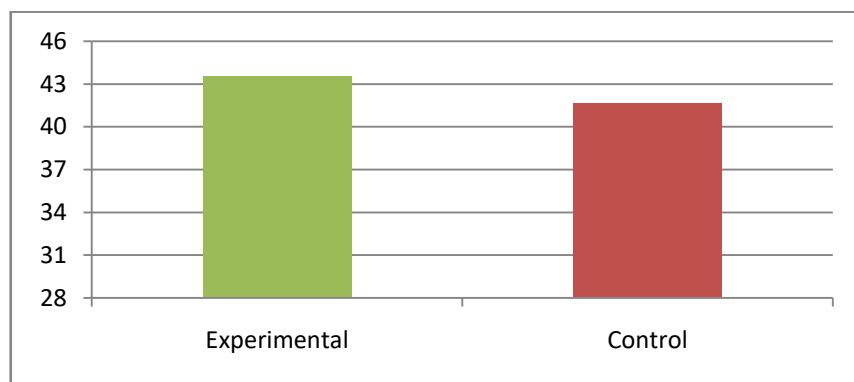


Figure-1: Showing Mean Difference for the Pre-Test Data on jumping abilities of Controlled as well as Experimental Group

Table-2

**Details of Mean, S.D., and t-ratio for the Pretest and Posttest Data on
jumping abilities of Badminton Players between the Means of
Experimental and Controlled Group**

Group	Mean of		Standard Deviation		Mean Difference	Standard Error of mean difference	t-ratio
	Pre-Test	Post-Test	Pre-Test	Post-Test			
Experimental	42.40	45.65	5.78	5.32	3.25	1.756	1.85*
Controlled	40.55	40.75	5.49	5.170	0.20	1.686	0.12 [@]

*distinctive at 0.05 level tabulated $t_{0.05(19)} = 1.729$

From the Table 2 it is found that there is significant difference among the pretest and posttest on jumping abilities of the badminton players of experimental team as the calculated t-value of 1.85 is greater than the tabulated t-value of 1.729 at 0.05 level, whereas controlled group is shown insignificant difference among pre and posttest mean scores as the obtained t-values of 0.12 is quite lower than that of tabulated t-value of 1.729 needed to be significant at 0.05 level

Table-3

Details of mean, S.D., and t-ratio for the posttest on jumping abilities of badminton players between the means of experimental and controlled group

Variable	Mean of		Standard Deviation		Mean Difference	Standard Error of mean difference	t-ratio
	Pretest	Posttest	Pretest	Posttest			

Jumping Ability	45.65	40.75	5.32	5.17	4.9	1.658	5.428 *

* distinctive at 0.05 level tabulated $t_{0.05 (28)} = 2.048$

It is clear from the above mentioned table that there is distinctive mean difference among the post test of experimental and controlled team as the determined t-value of 5.428 is greater than the tabulated t value of 2.024 needed to be significant at 0.05 level. The comparison of mean has been shown in the following diagram:

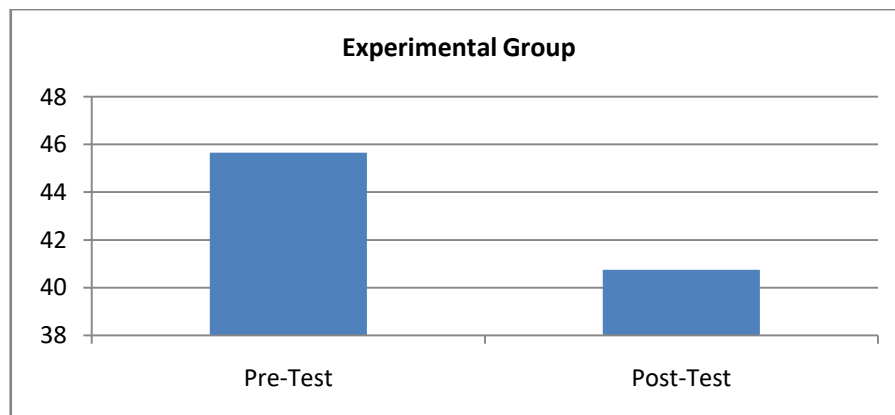


Fig: Showing Mean Difference for the Post-Test Data on jumping abilities of Controlled as well as Experimental Group

DISCUSSION ON FINDINGS

The Finding of the statistical analysis revealed that the subjects of the experimental group had shown the significant improvement while it was compared with pre-test mean performance along with posttest mean performance of the control group. Significant improvement may be applied to the nature of training as the training program was consisted of different related exercises like jumping jack, squat thrust, Depth Jump and Leg extension as these exercises are mainly practiced by the players to improve the strength and power of the lower extremity through which the jumping abilities improved significantly. Hence such outcome might have occurred in this study.

Testing of hypothesis

In the start of the investigation it was assumed that there would be distinctive effect of chosen exercises on the jumping abilities of badminton players. The result of the shows i.e. the statistical analysis disclosed that selected exercises and training program improved jumping abilities of badminton players. Hence, it can be conclude that the hypothesis formulated in the beginning of the study by the researcher is accepted.

Conclusion

Within the limitation of the investigation and on the basis of conclusion the following conclusion are drawn-Significant improvement has occurred on jumping abilities of badminton players due to systematic training program.

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