EFFECT OF MENTAL TRAINING ON THREE POINT FIELD GOAL SHOOTING ABILITY OF BASKETBALL PLAYERS

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Received on: 21 May 2012
Reviewed on: 26 June 2012
Approved on: 29 July 2012

Abstract

The objective of the study was to find out the significant effect of two types of mental practices (instructed mental practice &visual mental practice) on three point field goal shooting ability in basketball. Ninety male basketball players from Sagar division were selected randomly for this study. The age was ranged between 18 to 25 years. 30 subjects were selected from each group i.e. two experimental groups and control group. All subjects were, randomly divided into two experimental groups (A & B) and control group(C). The groups A and B were treated as experimental groups and received training program of mental training. The group C served as a control group and continued participating in the normal program. Instructed mental practice and Visualized mental practice were considered as independent variable. Shooting ability in basketball was selected as dependent variable. 'F' value of adjusted post – test means in relation to three point field goal shooting ability was found to be significant at 0.05 level of significance. Both the mental practices (instructed mental practice, visualized mental practice) proved to be equal in bringing the change in selected dependent variable three point shooting ability in basketball.

Keywords **- Instructed Mental Practice, Visualized Mental Practice and Mental Practice.**

Introduction

The term mental practice is used to signify the introspective or covert rehearsal that takes place within the individual other terms which has occasionally been used in reference to this process is conceptualization, ideational functioning introspection and imagery practice. Teachers of physical education and coaches of athletic activities have traditionally viewed practice in terms of the overt or physical performance of the task to be learned. At the same time relatively little attention has been devoted to the mental or imaginary training which might precede, accompany or follow the performance. Some recent evidence however suggests that physical proficiency might be considerably enhanced by mental training by observing others perform or by just informally thinking about the task. Basketball is a team sport, fast moving and physical game for which a player must be prepared physically and mentally in order to perform well. There are other players on the team. One needs their support and expertise. It's not just up to single player. Nobody expects perfection. One can miss free throws, or make defensive mistakes. There are several aspects which occur during game and all these cannot control by a player. A player can do one thing easily just Focus on what he can control: aggressiveness, finding the open player, getting down the floor, protecting the ball and mental strategies. Mental training can be beneficial to a basketball player before, during and after competition. Mental training techniques can help a player fight stress and anxiety, increase confidence and develop focus.

Objective of the Study

The objective of the study was to find out the significant effect of two types of mental practices (instructed mental practice &visual mental practice) on three point field goal shooting ability in basketball.

Selection of Subjects

The ninety Sagar division players were selected randomly for this study. There age was ranged between 18 to 25 years. 30 subjects were selected from each group i.e. two experimental groups and control group. All subjects were, randomly divided into two experimental groups (A & B) and control group(C). The experimental treatments were also randomly assigned to the groups. The groups A and B were treated as experimental groups and received training program of mental training. The group C served as a control group and continued participating in the normal program.

Selection of Variables

Following two types of mental practices were considered as independent variables:
Instructed mental practice
Visualized mental practice

Following dependent variable were selected in the study: Three point field goal shooting ability in basketball

Criterion Measures

Number of baskets count from out of ten trials was the score of basketball shooting ability. The score for three field goal point shooting ability was recorded on the basis of ten given shots from three point zone.

Experimental Design

For the study pre test – post test randomized group design which consists of one control group (n=30) and two experimental groups (n=30 in each) was used. Equal numbers of subjects were assigned randomly to the groups. Two groups (instructed mental practice &visual mental practice) served as experimental groups on which treatment was assigned and the third group served as the control group.

Instructed mental practice Group

O_1 T_1 O_2

Visual mental practice Group

O_3 T_2 O_4

Control Group

O_5 O_6

O = Observation, T = Treatment

Both the mental practices were conducted for 12 weeks (5 days in a week). After mental practice subjects performed the practical practice including control group. Each day mental practices were given for 45 minutes followed by 15 minutes break; 45 minute basketball shooting was performed after break.

Collection of Data

The data were collected before the start of the experiment (pre test) and at the end of the practice period (post test). Necessary instructions were given to the subjects before administration of the test.

Statistical Technique

In order to find out the effect of Instructed mental practice & Visual mental practice on three point field goal shooting ability in basketball, Analysis of Co-Variance (ANCOVA) was used. The level of significance was set at 0.05 level.

Findings of the Study

Table – 1

Descriptive Statistics of Three Point field Goal Shooting Ability in Basket ball of Two Experimental Groups and Control Group

	Groups	Mean	SD	SE	Min.	Max.
PRE	Instructed Mental Practice Group	4.23	1.01	0.18	3.00	6.00
	Visual Mental Practice Group	4.03	0.99	0.18	3.00	6.00
	Control Group	4.03	0.96	0.17	3.00	6.00
POST	Instructed Mental Practice Group	5.56	1.04	0.18	4.00	7.00
	Visual Mental Practice Group	5.46	0.97	0.17	4.00	7.00
	Control Group	3.83	1.26	0.23	2.00	7.00

Table – 2

Analysis of Variance of Comparison of Means of Two Experimental Groups and Control Group in Relation to Three Point Field Goal Shooting ability in Basketball

Test	Variance	SS	df	MSS	't'
Pre Test	Between	0.80	2	0.40	0.408
	Within	85.30	87	0.98	
Post Test	Between	56.82	2	28.41	23.54
	Within	105.0	87	1.20	

*Significant at .05 level of significant $t_{(0.05)\,(2,87)} = 3.11$

In relation to pre test, table – 2 revealed that the obtained 'F' value of .408 was found to be insignificant at 0.05 level, since this value was found less than the tabulated value 3.11at 2, 87 df. In relation to post test, significant difference was found among experimental groups and control group pertaining to three point field goal shooting ability in basketball, since F value of 23.541 was found significant at .05 level.

Table – 3

Analysis of Covariance of Comparison of Adjusted Post Test Means of Two Experimental Groups and Control Group in Relation to Three Point Field Goal Shooting Ability in Basketball

Variance	SS	df	MSS	'f'
Contrast	50.978	2	25.489	53.12*
Error	41.265	86	.480	

Significant at .05 level of significant $t_{(0.05)\,(2,87)} = 3.11$

Table-3 revealed that the obtained 'F' value of adjusted post – test was found to be significant at 0.05 level, since this value was found greater than the tabulated value 3.11 at 2, 86 df.

Table –4

Adjusted Post Test Means of Two Experimental Groups and Control Group in Relation to Three Point Field Goal Shooting Ability in Basketball

Groups	Mean	Std. Error
Exp. Group One	5.451	.127
Exp. Group Two	5.524	.127
Control Group	3.891	.127

Table-5

LSD Post-hoc Test for the Comparison of Paired adjusted Post test Means of Two Experimental Groups and Control Group in Relation to Three Point Field Goal Shooting Ability in Basketball

Adjusted Mean Values			Mean Diffence	C.D.
Instructed Mental Practice	Visual Mental Practice	Control Group		
5.451	5.524		.073	0.354
	5.524	3.891	1.633*	
5.451		3.891	1.560*	

Significant at 0.05 level of significance

Table- 5 shows that Adjusted mean differences between Instructed Mental Practice Group and Visual Mental Practice Group; Instructed Mental Practice Group & Control Group; and Instructed Mental Practice Group and Control Group. Insignificant difference was found between Instructed Mental Practice Group and Visual Mental Practice Group. On the other hand, significant difference was found between Instructed mental practice group and Control group; Visual mental practice group and Control Group.

Conclusion

On the basis of results following conclusions were drawn:

Adjusted post – test of instructed mental practice, visualized mental practice for three point field goal shooting ability in basketball was found to be significant.

Both the mental practices (instructed mental practice, visualized mental practice) proved to be equal in bringing the change in selected dependent variable three point field goal shooting ability, in basketball.

Discussion

De Young conducted the study to compare the five methods of mental practice on the improvement and retention of a perceptional motor skill. Mental imagery (pretending they were doing the task mentally) is superior to all other treatments in the improvement of a basketball shooting skill and in the retention of the skill. All practice methods improved the basketball shooting skill.

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