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Effect of Pettlep Imagery Technique on Air Pistol Shooting Performance among College Students

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Abstract – The purpose of the study was to find out the effect of PETTLEP imagery technique on air pistol shooting performance among college students. To achieve the purpose of the study, twenty male students studying in various courses at Institute of Professional Studies, Gwalior were randomly selected as subjects for this study. The criterion measures adopted for this study was accuracy ability of a subject in Air Pistol Shooting. The training was conducted for eight weeks duration. To find out the significance of mean differences between pre and posttest means of the experimental and control group 't' test was applied and level of significance was set at 0.05 level. The findings revealed that there was significant improvement in Air Pistol shooting performance due to PETTELEP Imagery technique of eight weeks of duration.

Keywords: - Pettlep Imagery Technique, Air Pistol Shooting Performance.

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INTRODUCTION:-

In the world of sport, winners and losers are often separated by inches, tenths of a second, a single missed shot, or one critical error. It is not unexpected therefore that athletes and coaches have started to emphasize proper mental preparation as one way to stay a step ahead of their competitors. One of the most popular of the mental preparation techniques is imagery.

The ability to repeat the skills and movements over and over in one's head will help them to create a lasting memory, that will do nothing but help the athlete perform the task perfectly without hesitation. Many coaches see the mental practice as important as the actual physical practice and will ask their players to complete a mental workout at home after the practice is over. The best athletes are those who follow through with the instructions, deeming that more practice leads to success. Imagery can help enhance performance with its enhanced repetition of a skill. It is also important to remember that when using imagery that it should be used frequently and not just in certain situations. It needs to be developed and practiced regularly. The effectiveness of imagery has received a great deal of anecdotal support with such noted athletes as Chris Evert, Jack Nicklaus, Jean Claude Killy, Dwight Stones, and Greg Louganis (Just to name a few), all reporting the use of imagery in their training and providing testimonial to its effectiveness in enhancing their performance. The extensive use of imagery by elite athletes was substantiated in a recent study by Hall, Rodgers, and Barr (1990), who found that national, international and state level Canadian athletes from a variety of individual and team sports used imagery more extensively than recreational athletes. Similarly, a study conducted on United States Olympic athletes (Murphy, Jowdy, & Durtschi, 1990) found that 90% of the 159 Olympic athletes surveyed reported using imagery and 94% of the Olympic coaches surveyed used imagery with their athletes and teams. In addition, 40% of the Olympic Athletes reported that they used imagery on the average of three to five days a week with 20% saying that they used imagery every day. Imagery is a tool that has been used for many years. With all the new technologies, developments of equipment and performance enhancing drugs, the use of mental practice still weighs out to be one of the most beneficial forms of preparation for a sport. The focus and attention paid to the detailed motions and routines of a skill in imagery keeps it high on the basic practice schedule of coaches all across the world. The professional athletes are always seen on the court or field with their eyes shut or pointing to their head pointing out to the crowd and their opponents that the real game and preparation is in the mind not in performing the action. Success is the desired goal of anyone who wants to be an athlete. Mental imagery alongside practice is the best

combination to ensure positive outcomes in the life ahead of the athlete.

METHODOLOGY:

The purpose of the study was to find out the effect of PETTLEP imagery technique on air pistol shooting performance. To achieve the purpose of the study, twenty male students studying in various courses at Institute of Professional Studies, Gwalior were randomly selected as subjects for this study. The subjects were divided in to two groups i.e. imagery and control group of equal number of ten each. These students were residing in the boys hostel of the Institute. The twenty students randomly selected were further randomly divided into two groups on the basis of lottery system. These two groups were randomly assigned to the experimental and control group by using a lottery system. Their age ranged from eighteen to twenty five years. Prior to the administration of tests, a meeting of all the subjects selected for this study was called in which the purpose of the study, and requirement of testing procedures were explained to them in detail to make them understand about what they are actually required to do during the experimental period of the study. All the subjects agreed to cooperate in the testing procedures explained to them. The experimental group A was randomly assigned to PETTLEP treatment and another group was randomly assigned as the control group and was termed as group B. There was thirty minutes imagery training program for each day for three alternate days in a week for total eight weeks duration. Each thirty minutes of session included three components: initial relaxation, concentration and mental reading for imagery mind/ body and imagery of Air Pistol Shooting skill. The subjects of the control group were not involved in any of the experimental treatments. The subjects were tested before the commencement of the experiment and after the experiment period of eight weeks to examine the effect of natural growth and development of their various systems taking place in the body during the period of experimentation. Each subject fired 10 shots with an air pistol at 10 meters distance. The scores ranged from one point for hitting the outside zone, to 10 for a hit in the 10 ring ('bull'). If a shot hits the line between two zones, the higher score was awarded. To find out the significance of mean differences between pre and post-test and independent 't' test was applied at 0.05 level of significant.

Results and Discussion: The mean gain differences between pre and post-performance in air pistol shooting after the conduct of eight weeks of experimental treatment on experimental group and control group is presented in table 1.

Table no.1

Pre and Post Mean Gain and Standard Deviation Scores of Air Pistol Shooting Performance of Experimental Group i.e. PETTLEP Imagery Technique

Group	Means	S. D.	S. E.	M.D.	't' ratio
Pre Imagery Performance in Air Pistol Shooting	13.4000	11.82464	3.73928		
				6.40	3.47*
Post Imagery Performance in Air Pistol Shooting	19.8000	9.46103	2.99184		

* Significant at 0.05 level of significance i.e. $_{(0.05)}$ = 2.26 with 9 degree of freedom

Table no.1 shows that there is significant difference between pretest performance and posttest performance in air pistol shooting as the calculated't' value i.e. 3.47 is higher than tabulated value i.e. 2.26 at 0.05 level of significance. Thus it is proved that eight weeks of imagery training programme is effective in improving the performance of college level students in Air Pistol Shooting.

The graphical representation of the data is given in figure 1.

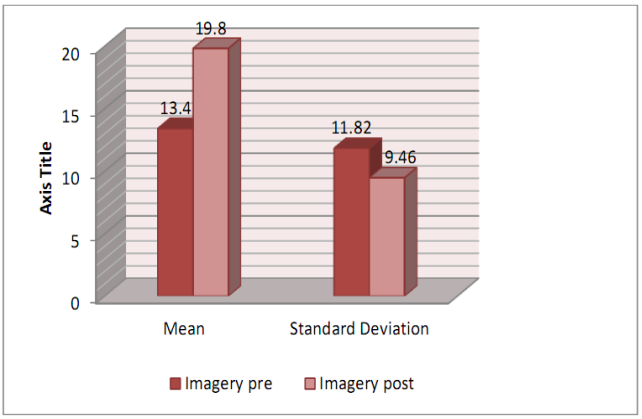

Fig 1: Graphical Representation of Pre and Post Test Means of Air Pistol Shooting of PETTLEP Imagery Practice Group.

The mean gain differences between pre and post-performance in pistol shooting after the conduct of eight weeks of control group is presented in table 2.

Table no. 2

Pre and Post Mean Gain and Standard Deviation Scores in Air Pistol Shooting Performance of Control Group

Group	Mean	S. D.	S. E.	M.D.	't' ratio
Pre Control Performance in Air Pistol Shooting	18.2000	12.26377	3.87814		
				2.30	1.29
Post Control Performance in Air Pistol Shooting	15.9000	9.48039	2.99796		

* Significant at 0.05 level of significance i.e. $_{(0.05)}$ = 2.26 with 9 degree of freedom

It is evident from the above table that there was no significant differences in mean scores of pre and posttest performance of control group in the Air Pistol Shooting Performance.

The graphical representation of the data is given in figure 2.

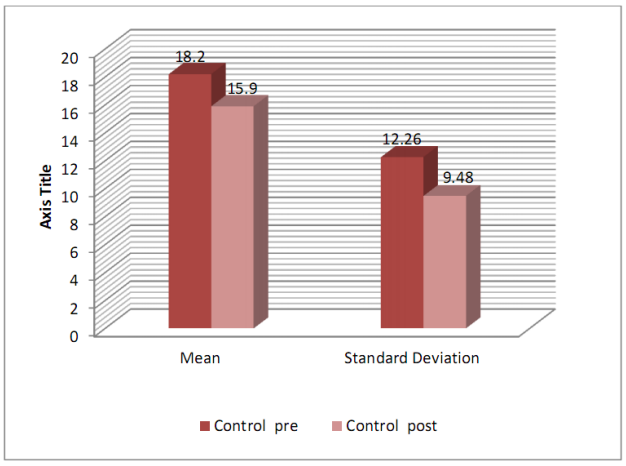

Fig 2: Graphical Representation of Pre and Post Test Means of Air Pistol Shooting of Control Group.

CONCLUSIONS:

Within the limitations of the present study, the following conclusions may be drawn:

1. It is concluded that eight weeks of PETTLEP imagery technique training is effective method of improving performance in Air Pistol Shooting among college level students.

2. It is further concluded that the Air Pistol Shooting performance does not improve significantly without any training.

REFERENCES:

Baker and Boucher, "Creating Your Own Imaginary World", pp. 321-327 cited by Hall, C. R., Rodgers, W. M. & Barr, K. A. The Use of Imagery by Athletes in Selected Sports. The Sport Psychologist, 4: 1990,1-10 cited by Murphy, S. M., Jowdy, D. P., & Durtschi, S. K.. Imagery Perspective Survey: U. S. Olympic Training Center, Unpublished Manuscript. U. S. Olympic Training Center (1990).

en.wikipedia.org/wiki/shooting sport.

Frank C. Baker and More S. J. Boucher, "Creating your Own Imaginary World", Journal of Sport and Exercise Psychology, 20: 1995, pp. 321-327.

Holmes P. S. & Collins D. J., The PETTLEP Approch to Motor Imagery: A Functional Equivalence Model for Sport Psychologists. Journal of Applied Sport Psychology, 13, 2001, p.p.60-83.

http://webmail.mobap.edu/portfolios/hss/Mumm/Imagery/In/Sport-Grad/School

Morris, Spittle T. M. and Watt, 2005. Mental Imagery in Sport in Sport Psychology: Theory, Applications and Issues. 2nd ed. T. Morris and J. Summers, 344-383.

Richard H. Cox, Sports Psychology Concepts and Applications, 5th ed., McGraw Hill, INC., New York, (2002), p. 265.

Rules 6.3.12 and 6.3.15 General Technical Rules for all Shooting Disciplines, international Shooting Sport Federation, January 16, 2006, archived from the original on june 17, 2008.

Rushall, B. S. & Lippman, L.G.. *The Role of Imagery in Physical Performance* [Electronic version]. International Journal of Sport Psychology, 29: 1997,pp. 57-72.

Short, S., Ross-Stewart, L., & Monsma, E., "*Onwards with the Evolution of Imagery Research in Sport Psychology", Athletic Insight:* The Online Journal of Sport Psychology, 8(3): September, 2006,pp. 1-15.