ANALYSIS OF MENTAL PRACTICE ON OUTSTEP SWERVE KICK IN FOOTBALL

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INTRODUCTION

For many years physical educators thought of their instructions as pertaining to learning through physical means. Worthy of attention is the current interest in mental practice, which is a form of passive learning in the sense that overt practice does not take place. Mental or image practice or conceptualization refers to task rehearsal in which there are no observable movements. Researchers have compared the effectiveness of learning tasks through actual physical practice with mental practice or a combination of physical-mental practice. Typically, physical practice is better than mental practice which in turn is better than no practice at all. 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. An individual who has no mental image is unlikely to be able to perform one well. The person who has watched others can transform a mental observation into physical action. Any sound training schedule will allow time for this means of improving skill. There are several reasons why teachers of physical education should give serious attention to the systematic use of mental practice in addition to traditional overt performance. Perhaps the most important reason is that the learner may develop proficiency in the skill more quickly, more thoroughly, and possibly with greater retention. In recent years a wide variety of visual imagery techniques have been applied to sport. Words like mental rehearsal, positive thinking, success visualization, visual motor behaviour rehearsal, cognitive behaviour modification and imagery have all been used to describe procedure for altering thoughts, feeling attitudes and performance. The uses of imagery however is a not new athlete have engaged in mental practice for as long as they have been involved in sport. In fact, research shows that better athletes have better recall for what goes on in their sport. Mental practice is used by many superior athletes practice physical skills such as jumps, shots, lifts, tricks, plays routines strategies and so on, virtually and physical skill or combination of physical skills can be practiced in imagery once an athlete becomes adept at using

imagery. However the effective uses of imagery require practice, just as learning to perfect physical skills requires practice. It is important to note that the major difference between mental imagery working and not working relates to the athletes ability to vividly imagine he executing the desired skill or response. Therefore, keeping in view different available methods for using the mental practice to enhance learning of a skill, Investigator has selected three methods namely Instructed Mental Practice, Visual Mental Practice and Visual Mental Practice with timing to find out the comparative effect of three methods in learning a outstep swerve kick in football.

STATEMENT OF THE PROBLEM

The purpose of this study was analysis of mental practice on learning outstep swerve kick in football.

DELIMITATIONS

1. The study was delimited to the male students of Bachelor of Physical Education studying in L. C. C., Lucknow.
2. The study was also confined to the following three types of mental practice-

(i) Instructed Mental Practice

(ii) Visual Mental Practice

(iii) Visual Mental Practice with Time

3. The study was also confined to the four weeks of training thrice in a week.
4. The study was further delimited to the mental practice of five minutes of physical practice of the skill.

HYPOTHESIS

On the basis of the available literature it was hypothesized that visual mental practice with timing may be better over instructed mental practice and visual mental practice method.

SELECTION OF SUBJECTS

The subjects selected for their study were forty male students of age ranging from 19 years to 25 years. On the basis of the AAHPER youth physical fitness test, subjects were divided into four groups. Each group was randomly assigned to the different experimental treatment. Group 'A' was assigned Instructed mental

practice, Group 'B' assigned the Visual mental practice and the Group 'C' was assigned Visual mental practice with Timing, whereas no treatment factor was the assigned to Group 'D' which served as a Control group. All the three experimental groups were assigned mental practice for duration of five minutes just prior to the physical practice of forty minutes of duration. The Control group was assigned physical practice only for the period of forty five minutes. The training was given every alternate day for a period of four weeks.

ADMINISTRATION OF TRAINING PROGRAMME

All the subjects were trained how to perform mental practice before starting the training session. The investigator assembled all the subjects and explained about the technique of mental training in detail. The investigator asked the students to lie down on the floor, relax and try to concentrate on the naval with closed eyes.

Subjects were taught how to do mental practice in the following way: **Group A** was assigned Instructed mental practice Subjects were asked to imagine that they were sitting on the chair and reading a book. Then they were asked to close the book and get up from the chair. Now they were requested to move across the room. Once they reached the other side of the room they were instructed to turn around and walk back to the chair on which they were sitting and take their seats. **Group B** was assigned visual mental practice, video film of the skill was shown to the subjects and then they were asked to practice the skill mentally in lying position with closed eyes. **Group C** was assigned visual mental practice with timing. Video film of the complete skill was shown to the subjects and they were asked to practice the skill slowly in first week. Then the group was asked to practice the skill mentally within restricted time which was as close as possible to the performance time taken by the demonstrator. The watches started when the subjects closed the eyes and stopped when the subjects finished the skill and raised her hand up in lying position. There was separate watch for each subject. **Group D** worked as a Control group and did only physical practice for forty five minutes with inter-mediate pauses along with the other groups. Five minutes rest was given after each ten minutes of physical practice. Five minutes of mental practice is chosen because researches have observed that it is difficult to concentrate for more than five minutes. Group B and Groups C were asked to practice physically together whereas Group A and Group D were asked to practice separately. So, that avoids any demonstration of the skill to both the groups. During physical practice no specific instructions were given.

ADMINISTRATION OF THE TEST AND COLLECTION OF DATA

After four weeks of experimental all four groups were tested on the field. Outstep swerve kick was used as skill to be tested. The Outstep swerve kick in football is a very difficult shot to master. It is very difficult to save the Outstep swerve kick and this is a special advantage. The Outstep swerve kick in football is usually taken away from distance of about 20 meter and in front of the goal. The investigator has selected the Outstep swerve kick as the skill because all the subjects were novice and none of them had any experience of performing the Outstep swerve kick in football. Evaluating scale was developed by the investigator in consultation with the experts in football. Total skill was divided into three phases. Each phase was evaluated out of 15 points. The skill was divided into following phases. **Approach Run:** The individual starts dribbling the ball and then approaches towards the goal running diagonally or straight as per the situation. **Execution:** The Outstep swerve kick is executed in such a way that the non kicking foot to be planted firm so that kick can be taken smoothly it should be about 10-12 inches away from the ball, the ball is kicked such that the kicking foot make contact with the ball away from the center creating a off center force in the ball. The Outstep portion of the kicking foot will make contact so that Outstep swerve force is given to the ball and ball will travel with a swing in the air towards goal to deceive the goalkeeper. **Follow Through:** During the follow through the kicking leg will swing or go towards the non-kicking foot so, that it can balance the whole body and also aid in avoiding the injury by the torque force created at the hip joint by the kick.

EXPERIMENTAL DESIGN

Equated group design was employed for the purpose of comparison of three methods of mental practice namely Instructed mental practice, Visual mental practice and Visual mental practice with timing on learning a Outstep swerve kick.

STATISTICAL PROCEDURE

To compare the three methods of mental practice on learning Outstep swerve kick "**one way analysis of variance**" was used level of significance is set at. .05.

ANALYSIS OF DATA AND RESULTS OF THE STUDY

FINDINGS

The results pertaining to significant difference among the three groups of mental practice in learning Outstep swerve kick were found out with the help of 'f' ratio. The analysis of data pertaining to this are presented in Table 1.

TABLE 1

Analysis of Variance of the Experimental and the Control group

Source of Variance	df	sum of Square	Mean Sum of Square	'F' Ratio
Between	3	689.42	229.81	42.55*
Within	36	194.44	5.40	

*Significant at .05 level of significance $F_{(0.05\ (3.36))} = 2.86$

It is evident from Table 1 that variability exists among the three experimental groups and a control group with respect to criterion variable namely learning of Outstep swerve kick. Since the value of one way analysis of variance (ANOVA) was found significant at selected level, the least significant difference (LSD) test was applied to find out statistically significance among the means of selected groups. The data relating to this is presented in TABLE -2

TABLE -2

LSD post hoc test for mean of the three experimental and one control group

Group A	Group B	Group C	Group D	M. D.	C. D.
32.161	37.641			5.480*	
32.161		39.433		7.272*	
32.161			28.646	3.515*	
					2.217
	37.641	39.433			1.792
	37.641		28.646		8.995*
		39.433	28.646		10.787*

*Significant at .05 level of significance

The above table shows that there was significant difference between all the means of experimental and control groups, except between the means of visual mental practice group and visual mental practice with time. The analysis of data clearly reveals that all experimental groups i.e. visual mental practice with time, visual mental practice and instructed mental practice have positive effect on learning a Outstep swerve kick. Similarly control group also learned the skill in the absence of the mental practice. The reason for learning a skill for all the four groups is because of physical practice as well as indulgence in mental practice. All the three mental practice groups were found to be superior as compared to the group which was involved in physical practice only. No statistically significant difference was found when the three experimental groups were compares with each other, except between the means of visual mental practice group and visual mental practice with time. Investigator compared all the groups and data reveals that visual mental practice with time was found to be statistically superior over instructed mental practice and control group. The mean of the visual mental practice with time was also greater than the mean of the visual mental practice group but statistically insignificant difference was found between the two. Superiority of the visual mental practice group with time over the instructed mental practice group and the control group was statistically proved. Probable cause may be that if discrepancy between the time taken by the demonstrator to problem the skill and the time the learner takes to mentally rehearse the skill is lesser, than the chance of learning the skill are better. The mean gain achieved by visual mental practice was higher than the instructed mental practice and control group, though the difference was not statically significant. The possible reason could be better concept formation in visual practice. Instructed mental practice and the control group was found to be least effective methods of learning a skill. The may be due to the fact that instructions alone are less effective than the visual imagery of the skill. Visual imagery of the skill gives clear and more practice picture of the skill to be learned. Difference in the means of three experimental groups namely visual mental practice, visual mental practice with the time and instructed mental practice may be found in the individual factors which might have facilitated or inhibited the amount of improvement to be gained from mental practice.

Discussion of Hypothesis

Hypothesis stated in this study earlier that is visual mental practice with time will be superior to other methods of mental practice has been partially accepted. It has been accepted with instructed mental practice and control group and has been reject with visual mental practice group.

CONCLUSIONS

Within the limitations of the present study the following conclusions may be drawn.

1. The training programme of mental practice significantly improved learning of Outstep swerve kick.
2. The inter-group comparison between all the four groups showed that visual mental practice with time is superior to the instructed mental practice and control group.
3. The visual mental practice was not found to be superior.
4. The control group which did only physical practice learned the skill but it was least effective way of learning.