CHAPTER III

METHODOLOGY
3.1 INTRODUCTION:

In this chapter selection of subject, selection of variable, training program, criterion measure collection of data procedure for administration of test list and statistical analysis has been explain as per demand of the study.

The present study is undertaken with a view to examine the effect Yoga (Suryanamskar) and curling exercise on shooting ability of Nanded District Basketball players. The data was collected on two groups namely A and B. Both the groups, before starting their training program have given pre test on selected parameters. Further the control group was left over for their daily as useful training program. The experimental group was applied with progressive Curling exercise and Suryanamskar yoga. Hence post test would be taken of both the group. After that judgment was made. Firstly according to the selected parameters, pre test and post test of control group was taken and mean was calculated difference. Standard deviation and T-value was calculated. Secondly pre and post test was taken of experimental group. The same was calculated as mentioned above. Thirdly the post test of control and experimental group was analyzed. Accordingly the mean difference standard deviation and t-value was calculated.
3.2 MATERIALS AND METHODS

Subjects: Thirty Basketball players of Nanded district, voluntary to participate in the training programmes. Exclusion criteria were the presence of chronic medical conditions such as asthma, heart disease or any other condition that would put the subjects at risk when performing the experimental tests. The subjects were free of smoking, alcohol and caffeine consumption, antioxidant supplementation and drugs during the programmes. They completed an informed consent document to participate in the study. The age, height, weight, resting heart rate, vital capacity, respiratory rate, and breath holding capacity of all subjects were measured in District Sports office basketball ground with 30 control groups.

The purpose of this investigation is to find out the effects of yoga and curling exercise on shooting accuracy. To achieve this purpose 60 players of Nanded District Basketball Association were selected for the controlled group and experimental group.

Control group there were no direction of practice and extra training. They were only practicing in common way.

For experimental group prepared a special practice programme and training workout in morning and evening session every day.

Experimental group has done training programme under the supervision of investigator each and every player were 8 exercises. Each exercise planed for 5 min time and one minute of recovery.
### 3.3 Training and Practice Program

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of suryanamaskar</th>
<th>Duration</th>
<th>Repetition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>suryanamaskar</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>suryanamaskar</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>suryanamaskar</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>suryanamaskar</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>suryanamaskar</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Fig.-1 Time allocation for parts of a typical 90 min. special practice programme for experimental group in the morning
Selection of Suryanamaskar:- Suryanamskar were selected to enhance stretch ability of muscles and for improving mobility of joints Flexibility. The scholar consulted with experts and studied the related literature also. Finally suryanamaskar has been selected and training the following programme for experimental group.

Training of Suryanamaskar:-

Training and practice programme had been arranged considering importance of study, conveniently of subjects and local condition.

The training of experimental treatment had been given to the practice session for a period of 90 minutes at 6:30 a.m. to 8:00 a.m. from Monday to Friday for the duration of 16 weeks. The practice sessions were conducted and supervised by the researcher himself. For the teaching purpose, each position was explained and demonstrated before the students performed the same. Correction and instructions were given in between succeeding one Round of 5 minute and 10 sec. each and every subject of experimental group were completed five rounds of suryanamaskar and after that individual skill practice of three point dills of 50 minitus was organized mean while 10 min. had been given from recovery period after a 20 min drill practice.
Training programme after warming up:-

Dumb-bell Exercise

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Exercise</th>
<th>Weight</th>
<th>Repetitions In total 16 Weeks</th>
<th>Set</th>
<th>Time in min.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>Dum-bell Press</td>
<td>5kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Dum-bell Curls</td>
<td>5 kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Bench press with Dum-bell</td>
<td>5 kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Step up on beach with Dum-bell</td>
<td>5 Kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Vertical jumps with Dum-bell</td>
<td>5 Kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Frontal Raise with Dum-bell</td>
<td>5 Kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Seated Wrist curl with barbell</td>
<td>5Kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>The Wrist Roller</td>
<td>5 Kgs</td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

Selection of exercise and training schedule:

Above eight exercises has been selected with for training before selection the exercise scholar has been discuss with expers, weight trainer and some coaches. Above all exercise has been selected for experimental group and traning programma was organized 60 minutes as schedule of training. 5 min. has been given for 3 sets and one min has given as a recovery period after one set of 10 repetitions.
In evening session after warm up; and basic skill practice the experimental group is practicing three point shooting shot from five angles i.e. 0°L, 45°L, 90°, 45°R, 0°R degree. The researcher supervising the practice of experimental group and correcting their errors and guiding them for the correct execution of the three point shooting. Right from the stance up to the releasing of the ball.

After Sixteen weeks training the group were tested. Both control and experimental group had to shot from the mark and investigator collected the data.

Fig.-2 Time allocation for parts of a typical 60 min. special practice programme for experimental group in the evening

[135]
Applied training program

A training programme was planned for 16 weeks, 5 days a week, 90 and 60 minutes morning and evening a day. Exercise and yoga that use large muscles groups that can be maintained continuously and are aerobic in nature. These exercises include walking, running, jogging, and Suryanamskar yoga. The exercise session should consist of the following procedure:

Warm-up period will be approximately 10 min., this was combine callisthenic-type stretching, exercise and progressive aerobic activity. However, cool down period was 5 to 10 min.

Equipments:

The following equipments were used in the course of study.

1. Regulation Basket ball court and Basketballs.
2. Scientific Calculator.
3. Ginometers
4. Fexometer
5. Barbell, Dumbells etc.
3.4 PARAMETERS MEASUREMENTS

Three point set shot was used to measure the effects of shooting ability.

Procedure to measure range of movement:-

The range of joint was measured by placing the goniometer. Its axis pin was set over the joint to the long axis of the protractor left free to move with the segment below the joint was measured and score was recorded in degrees.

Flexibility

Flexibility was assessed using the MicroFit FAS-2 flexometer to measure lower back and hamstring flexibility. The participants sat on the floor, with their shoes off, their legs straight, and feet against the flexometer foot stop. Before the test the technician asked the participant: “Do you have a back injury or is there any other reason you should not try to touch your toes?” If the participant’s answer was positive, the flexibility test was skipped. When participant reached forward and touched the flexometer for 3 seconds, a measurement was recorded in centimeters.

Vertical Jump Test

The participants stands side on to a wall and reaches up with the hand closest to the wall. Keeping the feet flat on the ground, the point of the fingertips was marked or recorded. This was called the standing reach height. The athlete then stands away from the wall, and leaps vertically as high as possible using both arms and legs to assist in projecting the body
upwards. The jumping technique can or cannot use a countermovement. Attempt to touch the wall at the highest point of the jump. The difference in distance between the standing reach height and the jump height is the score. The best of three attempts was recorded.

### 3.5 Statistical Analysis

Statistical technique used for analyzing the collected data in the study was 't' value.

The data for the thesis was collected 10 three point shooting test from the time of regular practices of Nanded District Basket Ball Association and after given them a training schedule. It was an experimental study and all experiments were recorded on specially deiced statistical sheet the investigator was aided by a team of three assistant who were senior members of Nanded District Basket ball Association.

The data collected was restricted to the specific three point shot shooting. The three point field goal shooting is that shooting which is executed out side of the three point line. (Line forming two arcs each constructed as a semi circle with a radius of 6.25 meters to the outer edge, taking as its center the point on the floor directly perpendicular to the exact center of Basket which is 1.5275 meters from the end lines) and if shot is counts, it considered as a three point shooting.