Chapter - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was the analysis of selected kinematic variables of fundamental skills execution in basketball. The subjects for this study were twenty male basketball players who had participated in the North Zone Inter University Basketball Championship held at CSJM University, Kanpur. The age of the subjects was between 18 to 28 years.

The performance of subjects in selected fundamental skills was taken as the criterion measure for the purpose of the present study. The skills performance of subjects was evaluated by subjective judgment by a panel of three judges, using a five point scale (poor, below average, good, very good, and excellent) and their scores were recorded. From each trial the score was converted into numerical form and out of the two trials, the best was used for analysis of data.

The digital videography (casio exilim ex-fl) was employed to register the technique of fundamental skills at moment preparation and execution phase in the sagittal plane. All subjects were filmed from their right side. From the photographs, the stick figures were prepared by using joint point method and the angles were measured with the help of siliconcoach 7 pro motion analyzer software. The center of gravity was calculated at selected moments, by using segmentation method. The pearson’s product moment correlations were calculated between selected kinematic variables and performance of the subjects in selected (baseball pass, chest pass, hook shot, jump shot, high dribble, low dribble) skills. The biomechanical variables consisted of selected angular kinematic variables i.e. the measurements of angles at various joints of ankle joints, knee joints, hip joints and elbow joints. The other kinematic variables were the linear kinematic i.e. distance, time, velocity, height of ball release and height of centre of gravity in selected skills.
Baseball pass

In the descriptive analysis of baseball pass at the preparation phase in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 89.70 ± 8.82; 162.90 ± 6.42; 181.10 ± 6.65; 18.65 ± 5.22; 77.70 ± 8.88 and 160.55 ± 6.21 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 68 & 101, 149 & 176, 171 & 191, 05 & 26, 62 & 93 and 147 & 171 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at preparation phase in baseball pass were: right ankle joint (-0.037), right knee joint (-0.001), right hip joint (-0.028), right shoulder joint (0.108), right elbow joint (-0.135), right wrist joint (-0.173).

In the descriptive analysis of baseball pass at the wind up phase-1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 90.40 ± 10.14; 129.65 ± 15.39; 164.20 ± 12.95; 23.15 ± 8.07; 48.20 ± 16.15 and 163.50 ± 9.20 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 76 & 110, 105 & 156, 143 & 189, 12 & 43, 18 & 84 and 141 & 175 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase-1 in baseball pass were: right ankle joint (-0.172), right knee joint (-0.338), right hip joint (-0.302), right shoulder joint (0.183), right elbow joint (0.006), right wrist joint (-0.045).

In the descriptive analysis of baseball pass at the wind up phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 89.85 ± 10.05; 128.90 ± 10.67; 161.50 ± 12.89; 39.45 ± 17.77; 37.05 ± 15.88 and 162.20 ± 8.03 respectively. The minimum and maximum values of the angle of right
ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 72 & 111, 111 & 150, 142 & 185, 10 & 64, 10 & 62 and 149 & 174 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase-2 in baseball pass were: right ankle joint (-0.033), right knee joint (-0.058), right hip joint (-0.170), right shoulder joint (0.709*), right elbow joint (0.581*), right wrist joint (-0.157).

In the descriptive analysis of baseball pass at the propulsion phase-1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 91.2 ± 8.17; 135.85 ± 10.26; 157.6 ± 11.89; 64.15 ± 27.88; 53.05 ± 29.05 and 161.35 ± 11.21 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 77 & 109, 114 & 156, 138 & 178, 10 & 113, 14 & 121 and 139 & 177 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-1 in baseball pass were: right ankle joint (-0.103), right knee joint (-0.678*), right hip joint (0.194), right shoulder joint (0.082), right elbow joint (-0.309), right wrist joint (0.233).

In the descriptive analysis of baseball pass at the propulsion phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 94.30 ± 11.86; 153.35 ± 11.23; 158.85 ± 15.55; 85.60 ± 22.03; 72.00 ± 25.19 and 160.80 ± 10.52 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 75 & 122, 126 & 176, 127 & 191, 36 & 121, 18 & 125 and 140 & 176 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at the propulsion phase-2 in baseball pass were: right
ankle joint (0.064), right knee joint (0.054), right hip joint (0.292), right shoulder joint (-0.052), right elbow joint (-0.283), right wrist joint (-0.134).

In the descriptive analysis of baseball pass at the propulsion phase- 3 in Basketball in this the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 97.35 ± 7.37; 153.10 ± 8.75; 144.00 ± 9.39; 97.85 ± 26.94; 83.45 ± 36.63 and 162.95 ± 9.28 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 84 & 114, 139 & 169, 115 & 159, 55 & 142, 29 & 181 and 147 & 178 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 3 in baseball pass were: right ankle joint (-0.107), right knee joint (0.196), right hip joint (0.131), right shoulder joint (-0.364), right elbow joint (-0.388), right wrist joint (0.124).

In the descriptive analysis of baseball pass at the propulsion phase- 4 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 102.35 ± 8.72; 153.95 ± 15.14; 149.35 ± 20.71; 113.05 ± 16.08; 123.65 ± 20.54 and 170.85 ± 9.53 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 88 & 117, 129 & 178, 119 & 184, 77 & 149, 89 & 159 and 150 & 187 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase 4 in baseball pass were: right ankle joint (0.188), right knee joint (0.486*), right hip joint (0.597*), right shoulder joint (0.226), right elbow joint (-0.450*), right wrist joint (-0.389).

In the descriptive analysis of baseball pass at the linear kinematic variables in Basketball, the distance; time; velocity; height of release and height of CG mean and SD values were 1.79 ± 0.30; 1.02 ± 0.27; 12.91 ± 9.81; 1.89 ± 0.32; and 1.27 ± 0.24 respectively. The minimum and maximum values of the distance; time; velocity;
In the descriptive analysis of chest pass at the linear kinematic variables in Basketball. In this the distance, time, velocity, height of ball release and height of CG mean and SD values were 1.42 ± 0.44; 10.12 ± 2.51; 1.34 ± 0.12; 1.24 ± 0.25; and 1.20 ± 0.15 respectively. The minimum and maximum values of the distance, time, velocity, height of ball release and height of CG was 0.67 & 2.51, 5.24 & 14.30, 1.12 & 1.57, 0.87 & 1.69 and 0.96 & 1.44 respectively.

The results had shown the values of coefficients of correlation of selected linear kinematics variables at skill execution in chest pass were: distance of ball travelling (0.086), height of ball release (-0.164), height of CG (-0.092), time (0.088), velocity (-0.193).

**High dribble**

In the descriptive analysis of high dribble at the preparation phase in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 101.95 ± 13.91; 101.15 ± 17.03; 134.85 ± 17.33; 16.20 ± 8.31; 88.95 ± 22.50 and 150.20 ± 13.66 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 81 & 130, 75 & 135, 108 & 169, 03 & 34, 45 & 128 and 131 & 174 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at preparation phase in high dribble were: right ankle joint (0.055), right knee joint (-0.064), right hip joint (-0.026), right shoulder joint (0.036), right elbow joint (0.298), right wrist joint (-0.200).

In the descriptive analysis of high dribble at the wind up phase- 1 in Basketball In this the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 94.95 ± 12.33; 115.50 ± 22.13; 131.40 ± 17.68; 13.90 ± 7.30; 55.95 ± 20.18 and 155.00 ± 12.67 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and
right wrist joints were 72 & 113, 82 & 157, 98 & 163, 03 & 27, 20 & 88 and 128 & 172 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase-1 in high dribble were: right ankle joint (-0.441), right knee joint (-0.138), right hip joint (-0.339), right shoulder joint (-0.041), right elbow joint (-0.186), right wrist joint (0.077).

In the descriptive analysis of high dribble at the Wind up phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 93.40 ± 9.79; 133.65 ± 22.71; 136.00 ± 15.07; 16.20 ± 11.92; 45.75 ± 21.18 and 152.55 ± 11.16 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 72 & 109, 94 & 166, 99 & 156, 02 & 45, 11 & 78 and 134 & 171 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase-2 in high dribble were: right ankle joint (-0.050), right knee joint (-0.052), right hip joint (-0.177), right shoulder joint (-0.204), right elbow joint (-0.278), right wrist joint (-0.009).

In the descriptive analysis of high dribble at the propulsion phase-1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 90.95 ± 11.55; 149.40 ± 15.66; 130.45 ± 18.52; 19.55 ± 9.21; 49.50 ± 14.43 and 154.90 ± 13.42 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 69 & 112, 117 & 169, 95 & 158, 05 & 36, 18 & 80 and 129 & 176 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-1 in high dribble were: right ankle joint (0.004), right knee joint (-0.003), right hip joint (-0.011), right shoulder joint (0.184), right elbow joint (-0.167), right wrist joint (0.191).
right wrist joints were 67 & 97, 113 & 145, 120 & 176, 08 & 36, 75 & 138 and 143 & 175 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 4 in high dribble were: right ankle joint (-0.061), right knee joint (-0.277), right hip joint (0.022), right shoulder joint (0.062), right elbow joint (-0.019), right wrist joint (0.166).

In the descriptive analysis of high dribble at the linear kinematic variables in Basketball. In this the distance; time; velocity; height of release and height of CG mean and SD values were 1.92 ± 0.42; 0.38 ± 0.07; 20.28 ± 5.22; 0.88 ± 0.19; and 1.26 ± 0.14 respectively. The minimum and maximum values of the distance, time, velocity, height of ball release and height of CG was 1.16 & 2.96, 0.25 & 0.53, 14.08 & 31.97, 0.62 & 1.18 and 1.05 & 1.57 respectively.

The results had shown the values of coefficients of correlation of selected linear kinematics variables at skill execution in high dribble were: distance of ball travelling (0.126), height of ball release (0.383), height of cg (0.137), time (-0.168) and velocity (0.462*).

Low dribble

In the descriptive analysis of low dribble at the preparation phase in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 93.05 ± 5.80; 152.70 ± 12.68; 164.10 ± 18.47; 20.40 ± 10.37; 87.90 ± 13.20 and 164.10 ± 6.99 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 85 & 105, 127 & 175, 117 & 187, 05 & 35, 66 & 112 and 154 & 178 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at preparation phase in low dribble were: right ankle joint (0.155), right knee joint (-0.106), right hip joint (0.079), right shoulder joint (-0.012), right elbow joint (0.042), right wrist joint (-0.253).
In the descriptive analysis of low dribble at the wind up phase -1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 88.25 ± 8.36; 143.20 ± 13.07; 154.55 ± 16.02; 24.65 ± 9.93; 76.70 ± 17.06 and 161.45 ± 7.22 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 73 & 102, 120 & 165, 123 & 178, 11 & 40, 50 & 107 and 148 & 172 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase- 1 in low dribble were: right ankle joint (0.172), right knee joint (-0.227), right hip joint (0.143), right shoulder joint (0.325), right elbow joint (-0.043), right wrist joint (0.082).

In the descriptive analysis of low dribble at the wind up phase- 2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 82.20 ± 8.34; 130.75 ± 9.36; 141.30 ± 13.53; 16.75 ± 8.86; 69.60 ± 9.49 and 158.40 ± 13.22 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 67 & 98, 116 & 143, 121 & 162, 05 & 33, 54 & 84 and 132 & 174 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase- 2 in low dribble were: right ankle joint (-0.039), right knee joint (-0.363), right hip joint (-0.018), right shoulder joint (-0.078), right elbow joint (-0.012), right wrist joint (0.132).

In the descriptive analysis of low dribble at the propulsion phase- 1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 78.35 ± 9.47; 122.85 ± 7.92; 142.20 ± 16.81; 13.35 ± 7.20; 76.70 ± 11.46 and 153.95 ± 11.45 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right
wrist joints were 61 & 92, 110 & 137, 112 & 165, 05 & 29, 54 & 93 and 136 & 172 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 1 in low dribble were: right ankle joint (-0.037), right knee joint (-0.488*), right hip joint (-0.098), right shoulder joint (-0.146), right elbow joint (-0.255), right wrist joint (0.113).

In the descriptive analysis of low dribble at the propulsion phase- 2 in Basketball In this the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 75.85 ± 8.41; 116.15 ± 11.82; 135.80 ± 13.79; 13.70 ± 4.66; 89.30 ± 22.30 and 149.20 ± 21.18 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 62 & 85, 93 & 136, 112 & 156, 05 & 23, 29 & 119 and 82 & 172 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 2 in low dribble were: right ankle joint (-0.233), right knee joint (-0.419), right hip joint (0.156), right shoulder joint (-.282), right elbow joint (-0.297), right wrist joint (0.163).

In the descriptive analysis of low dribble at the propulsion phase- 3 in Basketball In this the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 74.75 ± 8.54; 119.30 ± 11.43; 127.55 ± 15.84; 14.35 ± 6.37; 104.20 ± 14.39 and 149.75 ± 13.43 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 61 & 88, 88 & 145, 86 & 150, 05 & 25, 83 & 133 and 124 & 169 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 3 in low dribble were: right ankle joint (0.060), right knee joint (-0.331), right hip joint (-0.083), right shoulder joint (-0.277), right elbow joint (-0.377), right wrist joint (0.069).
respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 72 & 108, 48 & 123, 85 & 184, 10 & 89, 74 & 133 and 141 & 173 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-1 in hook shot were: right ankle joint (0.068), right knee joint (-0.168), right hip joint (-0.004), right shoulder joint (0.448*), right elbow joint (-0.094), right wrist joint (0.019).

In the descriptive analysis of hook shot at the propulsion phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 86.35±8.34, 56.95±15.13, 111.30±13.84, 70.10±33.75, 85.10±32.87 and 157.45±8.86 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 72 & 98, 31 & 81, 88 & 135, 17 & 132, 31 & 142 and 144 & 174 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-2 in hook shot were: right ankle joint (-0.051), right knee joint (0.171), right hip joint (-0.020), right shoulder joint (0.130), right elbow joint (-0.101), right wrist joint (0.295).

In the descriptive analysis of hook shot at the propulsion phase-3 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 93.15±15.06, 81.20±15.01, 128.20±11.30, 126±19.45, 138.05±16.26 and 156.20±12.03 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 65 & 121, 51 & 113, 108 & 147, 92 & 157, 112 & 168 and 140 & 177 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-3 in hook shot were: right ankle
joint (-0.228), right knee joint (0.348), right hip joint (-0.053), right shoulder joint (0.174), right elbow joint (0.011), right wrist joint (-0.149).

In the descriptive analysis of hook shot at the propulsion phase-4 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 121.15 ± 16.27, 137.05 ± 19.36, 167.10 ± 8.76, 153.55 ± 8.26, 161.15 ± 8.61 and 162.8 ± 8.85 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 92 & 148, 105 & 169, 152 & 186, 138 & 166, 143 & 175 and 145 & 177 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-4 in hook shot were: right ankle joint (0.145), right knee joint (0.139), right hip joint (0.056), right shoulder joint (0.123), right elbow joint (0.124), right wrist joint (-0.095).

In the descriptive analysis of hook shot at linear kinematics variables of hook shot at skill execution in basketball of distance, time, velocity, height of ball release and height of CG was 101.95 ± 9.13, 139.90 ± 9.83, 152.20 ± 6.91, 23.10 ± 6.34 and 90 ± 8.87 respectively. The minimum and maximum values of the distance, time, velocity, height of ball release and height of CG was 78 & 119, 123 & 157, 134 & 161, 09 & 35 and 70 & 102 respectively.

The results had shown the values of coefficients of correlation of selected linear kinematics variables at skill execution in hook shot were: distance of ball travelling (0.705*), height of ball release (0.336), height of CG (0.245), time (0.272), and velocity (0.017).

**Jump shot**

In the descriptive analysis of jump shot at the at preparation phase in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 78.15 ± 14.95; 132.35 ± 27.78; 121.35 ± 20.59; 13.50 ± 7.12; 108.35 ± 29.48 and
147.75 ± 14.73 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 54 & 98, 76 & 165, 81 & 158, 04 & 32, 59 & 152 and 128 & 171 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at preparation phase in jump shot were: right ankle joint (0.103), right knee joint (0.200), right hip joint (0.087), right shoulder joint (-0.150), right elbow joint (0.469*), right wrist joint (0.322).

In the descriptive analysis of jump shot at the wind up phase - 1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 69.85±10.94, 107.85±15.95, 130.50 ± 18.34, 36.60±11.67, 69.65±11.40 and 154.15±14.71 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 42 & 87, 82 & 132, 106 & 194, 15 & 57, 52 & 89 and 118 & 173 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase- 1 in jump shot were: right ankle joint (-0.122), right knee joint (0.206), right hip joint (-0.131), right shoulder joint (-0.269), right elbow joint (0.322), right wrist joint (0.307).

In the descriptive analysis of jump shot at the wind up phase -2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 76.55±8.07, 109.15±7.63, 128.65±10.59, 92.35±17.03 and 55.70±12.82 and 155±15.31 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 64 & 92, 95 & 124, 116 & 147, 60 & 123, 32 & 86 and 128 & 176 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase- 2 in jump shot were: right ankle joint
(0.179), right knee joint (0.136), right hip joint (0.150), right shoulder joint (-0.330),
right elbow joint (-0.052), right wrist joint (0.250).

In the descriptive analysis of jump shot at the propulsion phase-1 in
Basketball, the angle of right ankle joint, right knee joint, right hip joint, right
shoulder joint, right elbow joint and right wrist joints mean and SD values were
91.70±9.59, 77.20±19.3, 132.30±27.49, 41.90±22.95, 96.40±17.24 and 160.05±9.01
respectively. The minimum and maximum values of the angle of right ankle joint,
right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist
joints were 72 & 108, 48 & 123, 85 & 184, 10 & 89, 74 & 133 and 141 & 173
respectively.

The results had shown the values of coefficients of correlation of selected
angular kinematics variables at propulsion phase- 1 in jump shot were: right ankle
joint (0.488*), right knee joint (0.215), right hip joint (0.148), right shoulder joint
(0.017), right elbow joint (-0.175), right wrist joint (0.245).

In the descriptive analysis of jump shot at the propulsion phase- 2 in Basketball,
the angle of right ankle joint, right knee joint, right hip joint, right
shoulder joint, right elbow joint and right wrist joints mean and SD values were
93.60±17.30, 133.45±18.7, 146.45±18.89, 117±14.19, 53.40±12.69 and 151.60±10.72 respectively. The minimum and maximum values of the angle of right ankle joint,
right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 68 & 126, 96 & 161, 112 & 176, 84 & 140, 32 & 76 and 128 & 169 respectively.

The results had shown the values of coefficients of correlation of selected
angular kinematics variables at propulsion phase- 2 in jump shot were: right ankle
joint (0.228), right knee joint (0.213), right hip joint (-0.040), right shoulder joint (-
0.193), right elbow joint (-0.239), right wrist joint (0.168).

In the descriptive analysis of jump shot at the propulsion phase- 3 in
Basketball, the angle of right ankle joint, right knee joint, right hip joint, right
shoulder joint, right elbow joint and right wrist joints mean and SD values were
124.45±16.66, 158.90±16.30, 166.50±12.84, 118.05±13.05, 57.65±11.51 and
151.75±14.04 respectively. The minimum and maximum values of the angle of right
ankle joint (0.064), right knee joint (0.054), right hip joint (0.292), right shoulder joint (-0.052), right elbow joint (-0.283), right wrist joint (-0.134).

In the descriptive analysis of baseball pass at the propulsion phase- 3 in Basketball In this the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 97.35 ± 7.37; 153.10 ± 8.75; 144.00 ± 9.39; 97.85 ± 26.94; 83.45 ± 36.63 and 162.95 ± 9.28 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 84 & 114, 139 & 169, 115 & 159, 55 & 142, 29 & 181 and 147 & 178 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 3 in baseball pass were: right ankle joint (-0.107), right knee joint (0.196), right hip joint (0.131), right shoulder joint (-0.364), right elbow joint (-0.388), right wrist joint (0.124).

In the descriptive analysis of baseball pass at the at propulsion phase- 4 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 102.35 ± 8.72; 153.95 ± 15.14; 149.35 ± 20.71; 113.05 ± 16.08; 123.65 ± 20.54 and 170.85 ± 9.53 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 88 & 117, 129 & 178, 119 & 184, 77 & 149, 89 & 159 and 150 & 187 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase 4 in baseball pass were: right ankle joint (0.188), right knee joint (0.486*), right hip joint (0.597*), right shoulder joint (-0.226), right elbow joint (-0.450*), right wrist joint (-0.389).

In the descriptive analysis of baseball pass at the linear kinematic variables in Basketball, the distance; time; velocity; height of release and height of CG mean and SD values were 1.79 ± 0.30; 1.02 ± 0.27; 12.91 ± 9.81; 1.89 ± 0.32; and 1.27 ± 0.24 respectively. The minimum and maximum values of the distance; time; velocity;
height of release and height of CG mean and SD values were 1.20 & 2.15, 0.58 & 1.56, 3.17 & 49, 1.45 & 2.49 and 1.01 & 1.67 respectively.

The results had shown the values of coefficients of correlation of selected linear kinematics variables at skill execution in baseball pass were: distance of ball travelling (0.127), height of ball release (-0.192), height of cg (-0.149), time (0.322), velocity (-0.347).

Chest pass

In the descriptive analysis of chest pass at the preparation phase in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 87.2 ± 8.15; 150.15 ± 11.85; 160.6 ± 16.49; 7.6 ± 2.91; 116.9 ± 24.88 and 161.5 ± 12.66 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 72 & 99, 131 & 178, 114 & 186, 03 & 15, 71 & 152 and 132 & 179 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at preparation phase in chest pass were: right ankle joint (-0.008), right knee joint (0.039), right hip joint (0.385), right shoulder joint (-0.192), right elbow joint (0.367), right wrist joint (0.062).

In the descriptive analysis of chest pass at the wind up phase- 1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 89.80 ± 13.82; 136.45 ± 9.12; 144.65 ± 12.51; 15.70 ± 8.42; 98.55 ± 21.45 and 158.70 ± 11.98 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 70 & 118, 117 & 148, 114 & 161, 04 & 34, 68 & 129 and 128 & 178 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase- 1 in chest pass were: right ankle joint (-0.253), right knee joint (0.370), right hip joint (0.194), right shoulder joint (0.288), right elbow joint (-0.208), right wrist joint (-0.051).
In the descriptive analysis of chest pass at the wind up phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 86.65 ± 14.51; 132.05 ± 14.66; 137.85 ± 17.83; 12.10 ± 4.78; 89.35 ± 19.44 and 157.95 ± 13.84 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 62 & 118, 107 & 156, 102 & 172, 05 & 22, 51 & 121 and 132 & 175 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at wind up phase-2 in chest pass were: right ankle joint (-0.031), right knee joint (0.134), right hip joint (0.350), right shoulder joint (0.399), right elbow joint (-0.042), right wrist joint (-0.003).

In the descriptive analysis of chest pass at the propulsion phase-1 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 87.75 ± 16.14; 134.75 ± 11.06; 139.9 ± 18.30; 15.3 ± 10.66; 96.15 ± 25.81 and 146.2 ± 27.84 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 55 & 112, 109 & 156, 104 & 170, 03 & 34, 49 & 142 and 71 & 178 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-1 in chest pass were: right ankle joint (0.003), right knee joint (0.396), right hip joint (0.317), right shoulder joint (0.324), right elbow joint (-0.019), right wrist joint (0.073).

In the descriptive analysis of chest pass at the propulsion phase-2 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 85.1 ± 17.01; 148.15 ± 15.53; 143.75 ± 17.92; 27.7 ± 16.06; 91.5 ± 29.53 and 126.1 ± 23.58 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 62 & 118, 107 & 156, 102 & 172, 05 & 22, 51 & 121 and 132 & 175 respectively.
wrist joints were 55 & 112, 126 & 171, 110 & 167, 06 & 56, 37 & 138 and 89 & 163 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-2 in chest pass were: right ankle joint (0.076), right knee joint (0.165), right hip joint (0.364), right shoulder joint (0.035), right elbow joint (0.103), right wrist joint (-0.421).

In the descriptive analysis of chest pass at the propulsion phase-3 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 87.55 ± 16.52; 147.30 ± 15.13; 146.35 ± 19.42; 65.35 ± 16.17; 153.10 ± 21.91 and 68.70 ± 21.51 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 56 & 111, 119 & 166, 110 & 172, 38 & 97, 81 & 175 and 40 & 129 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-3 in chest pass were: right ankle joint (0.068), right knee joint (0.109), right hip joint (0.401), right shoulder joint (-0.283), right elbow joint (-0.1127), right wrist joint (-0.136).

In the descriptive analysis of chest pass at the propulsion phase-4 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 93.8 ± 14.04; 151.2 ± 13.50; 127.05 ± 14.13; 91.15 ± 14.49; 151.25 ± 15.16 and 158.3 ± 6.63 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 63 & 111, 120 & 172, 105 & 168, 57 & 114, 122 & 178 and 143 & 169 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase-4 in chest pass were: right ankle joint (0.173), right knee joint (0.461*), right hip joint (0.174), right shoulder joint (0.047), right elbow joint (-0.137), right wrist joint (0.168).
ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 82 & 143, 119 & 182, 141 & 185, 80 & 132, 42 & 76 and 130 & 174 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 3 in jump shot were: right ankle joint (0.051), right knee joint (0.540*), right hip joint (0.219), right shoulder joint (0.219), right elbow joint (0.254), right wrist joint (0.020).

In the descriptive analysis of jump shot at the propulsion phase- 4 in Basketball, the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints mean and SD values were 136.35±11.43, 165.50±7.22, 173.35±5.92, 127.80±12.20, 80.35±10.11 and 149.45±9.06 respectively. The minimum and maximum values of the angle of right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joints were 110 & 165, 150 & 176, 165 & 185, 91 & 142, 64 & 95 and 128 & 162 respectively.

The results had shown the values of coefficients of correlation of selected angular kinematics variables at propulsion phase- 4 in jump shot were: right ankle joint (-0.200), right knee joint (0.263), right hip joint (-0.021), right shoulder joint (0.087), right elbow joint (-0.327), right wrist joint (-0.100).

In the descriptive analysis of jump shot at the linear kinematics variables in basketball of distance, time, velocity, height of ball release and height of CG mean and SD values were 2.08±0.36, 0.90±0.32, 4.11±0.68, 2.95±0.44 and 1.77±0.175 respectively. The minimum and maximum values of the distance, time, velocity, height of ball release and height of CG were 1.46 & 2.71, 0.44 & 1.45, 3.22 & 5.73, 2.35 & 4.02 and 1.51 & 2.08 respectively.

The results had shown the values of coefficients of correlation of selected linear kinematics variables at skill execution in jump shot were: distance of ball travelling (0.020), height of ball release (0.224), height of cg (-0.415), time (0.093), velocity (0.260).
Conclusions

1. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have significant relationship with the performance of baseball pass at the preparation phase.

2. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have significant relationship with the performance of baseball pass at wind up phase-1.

3. The right knee joint and right shoulder joint had positive contribution on the performance of baseball pass at wind up phase-2.

4. The other angular kinematic variables such as right ankle joint, right hip joint, right elbow joint and right wrist joint did not have significant relationship with the performance of baseball pass at wind up phase-2.

5. The right knee joint had positive contribution on the performance of baseball pass at propulsion phase-1.

6. The other angular kinematic variables such as right ankle joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have significant relationship with the performance of baseball pass at propulsion phase-1.

7. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have significant relationship with the performance of baseball pass at propulsion phase-2.

8. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of baseball pass at propulsion phase-3.

9. The right knee joint, right shoulder joint and right elbow joint had a positive contribution on the performance of baseball pass at propulsion phase-4.
The angular kinematic variables such as right ankle joint, right hip joint and right wrist joint did not have a significant relationship with the performance of baseball pass at propulsion phase- 4.

None of the linear kinematic variables such as distance of ball travelled, Time, Velocity, Height of ball release and height of CG did not have a significant relationship with the performance of baseball pass at skill execution in Basketball.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at preparation phase.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at wind up phase- 1.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at wind up phase- 2.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at propulsion phase- 1.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at propulsion phase- 2.

The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at propulsion phase- 3.
18. The right knee joint had a positive contribution on the performance of chest pass at propulsion phase- 4.

19. The other angular kinematic variables such as right ankle joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of chest pass at propulsion phase- 4.

20. The linear kinematic variables such as Distance of ball travelling, Time, Velocity, Height of ball release and height of CG did not have a significant relationship with the performance of chest pass at skill execution in Basketball.

21. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at preparation phase.

22. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at wind up phase- 1.

23. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at wind up phase- 2.

24. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at propulsion phase- 1.

25. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at propulsion phase- 2.
26. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at propulsion phase- 3.

27. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of high dribble at propulsion phase- 4.

28. In case of linear kinematic variable i.e. velocity of ball had a significant relationship on the performance of high dribble at skill executions.

29. The other selected linear kinematic variables such as Distance of ball travelling, Time, Height of ball release and height of CG did not have a significant relationship with the performance of high dribble at skill execution in Basketball.

30. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at preparation phase.

31. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at wind up phase- 1.

32. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at wind up phase- 2.

33. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at propulsion phase- 1.
34. The right knee joint had a positive contribution on the performance of low dribble at propulsion phase- 2.

35. The angular kinematic variables such as right ankle joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at propulsion phase- 2.

36. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at propulsion phase- 3.

37. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of low dribble at propulsion phase- 4.

38. The linear kinematic variables such as Distance of ball travelling, Time, Velocity, Height of ball release and height of CG did not have a significant relationship with the performance of low dribble at skill execution in Basketball.

39. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at preparation phase.

40. The right wrist joint had a positive contribution on the performance of hook shot at wind up phase- 1.

41. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint and right elbow joint did not have a significant relationship with the performance of hook shot at wind up phase- 1.

42. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at wind up phase- 2.
43. The right shoulder joint had a positive contribution on the performance of hook shot at propulsion phase-1.

44. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at propulsion phase-1.

45. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at propulsion phase-2.

46. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at propulsion phase-3.

47. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of hook shot at propulsion phase-4.

48. In case of linear kinematic variable i.e. distance of ball travelling had a significant relationship on the performance of hook shot at skill executions.

49. The other linear kinematic variables such as Time, Velocity, Height of ball release and height of CG did not have a significant relationship with the performance of hook shot at skill execution in Basketball.

50. The right elbow joint had a positive contribution on the performance of jump shot at preparation phase.

51. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint and right wrist joint did not have a significant relationship with the performance of jump shot at preparation phase.
52. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint and right elbow joint did not have a significant relationship with the performance of jump shot at wind up phase- 1.

53. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of jump shot at wind up phase- 2.

54. The right ankle joint had a positive contribution on the performance of jump shot at propulsion phase- 1.

55. The angular kinematic variables such as right knee joint, right hip joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of jump shot at propulsion phase- 1.

56. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of jump shot at propulsion phase- 2.

57. The right knee joint had a positive contribution on the performance of jump shot at propulsion phase- 3.

58. The angular kinematic variables such as right ankle joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of jump shot at propulsion phase- 3.

59. The angular kinematic variables such as right ankle joint, right knee joint, right hip joint, right shoulder joint, right elbow joint and right wrist joint did not have a significant relationship with the performance of jump shot at propulsion phase- 4.

60. The linear kinematic variables such as Distance of ball travelling, Time, Velocity, Height of ball release and height of CG did not have a significant relationship with the performance of jump shot at skill execution in Basketball.
Recommendations

Based on the conclusions drawn in this study the following recommendations have been made

1. A study may be undertaken with more number of variables, different angles and center of gravity as the factors contributing to performance of players in basic fundamental skills.

2. The physical education teachers and coaches while preparing the schedules of their trainees may use the results of the study.

3. The result of these studies may be used by the players for self evaluation of their techniques.

4. Similar studies may be conducted by using more dimensional video graphic techniques.

5. Similar study can also be conducted on female basketball players.

6. Similar study can also be conducted on different level and different age groups Basketball players.

7. Similar study can also be undertaken to analyze the other techniques of Basketball.

8. Similar study can also be undertaken to analyze the techniques of different games.

9. Similar study may be conducted by using sophisticated equipments and software.

10. Similar study may be conducted on both handed (Right and Left hand) Basketball players.

11. A comparative study may be conducted on Indian players with other International Players.

12. A similar study may be undertaken to compare the effect of training programs through kinematic analysis.