Research Methods used to compare inter-relationship among, Achievement Motivation, Attitude and Socio-Economic Status (SES) have been presented in this chapter. The Judokas were tested on above three variables through various Sociological and Psychological tests. Differences among variables were tested through ‘t’ test. The Judokas were 150 males and 150 females from various parts of the country, belonging to different universities of all four regions namely; North, South, East and West. These Judokas were in different weight categories and the range of age was 18 – 24 years.

3.1 SELECTION OF SAMPLES FOR STUDY

The samples for the present study (males and females) were 300 Judokas from different member universities of “Association of Indian Universities (AIU)”, who participated in All India Inter University Judo Championship held at Chandigarh from 07.02.2010 to 14.02.2010. Subjects were selected through probability type of sampling and simple random sampling was used. Ten lists of all participants were collected from the Director Sports, Punjab University, Chandigarh. Judokas were selected through Lottery system.

3.2 SELECTION OF VARIABLES

Selection of variables were done very carefully by researcher after having thorough discussions with Sports Psychologists, Coaches, Trainers, Physical Educationists and various experts in the fields of Judo from Maharshi Dayanand University, Rohtak, Kurukshetra University, Kurukshetra, Chaudhary Devi Lal University, Sirsa, National Institute of Sports, Patiala and Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan. Various Libraries like M.D.U., Rohtak, K.U. Kurukshetra, NIS Patiala and Physical Education Department, Panjab University, Chandigarh were visited by research
Keeping in view the significance for Judokas performance and development of an individual, the following Socio-psychological variables were selected as recommended by various experts. Primarily, these variables belong to three basic areas; Socio-economic Status, Motivation and Attitude. The variables used in the study were as under:

1. Sports Achievement Motivation
2. Attitude
3. Socio-Economic Status

3.3 TOOLS USED FOR DATA COLLECTION

All tests have been standardized in the Indian Cultural Context and were being used extensively. A specimen copy of each of the tests used in the present study has been given in Appendixes A, B and C at the end of this thesis.

Keeping in view the research investigation, the following three tools were used to collect the data:

1. To measure Achievement Motivation, the Sports Achievement Motivation Test developed by Dr. M.L. Kamlesh (1990) was used.
2. To measure Attitude of human being, Attitude Test developed by Dr. N.S. Chauhan (1985) and others was used.
3. To measure Socio Economic Status (SES) test developed by Dr. Rajbir Singh and others (2006) was used.
3.4 TEST DESCRIPTION

3.4.1 Sports Achievement Motivation

Achievement motivation is related to the inner desire of a sportsman especially Judokas that force them to participate in the sports. This inner force or derive defines the degree of achievement motivation which motivates the Judokas to participate without considering success or failure. A motivated player never hesitates to face the challenges and always looks for new opportunities which make him feel satisfied for his career. The sports achievement motivation test (Dr. M.L. Kamlesh, 1990) is a self evaluation questionnaire of 20 statements and included as APPENDIX-I of APPENDICES. The response value of this test extended from 0 to 40 in total. Each statement carries a maximum score of 2 and the minimum score of 0. The scale has been provided with a key to evaluate the answers. The test’s retest reliability of the scale with N = 79 has been reported to be 0.70. Although the test is axiomatically valid, for it measure only one thing i.e. level of sports achievement motivations, yet its validity against another measure of achievement was found 0.70 score. The following is the classification suggested by the author wherein the classification criteria were based on percentile points.

<table>
<thead>
<tr>
<th>Sr. Number</th>
<th>Raw or mean scores</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 to 24</td>
<td>Low</td>
</tr>
<tr>
<td>2.</td>
<td>24 to 30</td>
<td>Moderate/Middle</td>
</tr>
<tr>
<td>3.</td>
<td>30 and above</td>
<td>High</td>
</tr>
</tbody>
</table>
3.4.2 Attitude

The attitude test is related to the human behavior. It measures both ‘potentials’ and ‘hazards’ related to the programme of ‘social mobilization’. Out of the six areas, measured by the scale, those of nationalism, liberalism, social change, social revolutionism are potential referents and those of ‘social distance’ and ‘untouchability’ speak for ‘hazards’. The present scale was developed by Dr. N.S. Chauhan 1985 and included as APPENDIX-II of APPENDICES. There are six sub-parts of this Attitude Scale that measure the human behaviour such as: Social Change, Social Distance, Liberalism, Nationalism, Social Revolutionism and Untouchability. The test contains 150 questions. Every sub-part of Attitude has got 25 questions each. The scale values of Attitude and its sub-variables are given in the Table No. 4.2 of the Attitude Manual.

Reliability (Split – Half Method)

<table>
<thead>
<tr>
<th>Sr. Number</th>
<th>Sub-variables of “Attitude”</th>
<th>Value of ‘r’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nationalism</td>
<td>r = .92</td>
</tr>
<tr>
<td>2.</td>
<td>Liberalism</td>
<td>r = .88</td>
</tr>
<tr>
<td>3.</td>
<td>Social Change</td>
<td>r = .71</td>
</tr>
<tr>
<td>4.</td>
<td>Revolutionism</td>
<td>r = .74</td>
</tr>
<tr>
<td>5.</td>
<td>Social Distance</td>
<td>r = .81</td>
</tr>
<tr>
<td>6.</td>
<td>Untouchability</td>
<td>r = .91</td>
</tr>
</tbody>
</table>
3.4.3 Socio Economic Status

Socio Economic Status is considered as one of the important variables in research. The present Socio Economic Status (SES) Scale has been developed by Dr. Rajbir Singh and others 2006 both in Hindi and English; the rural and urban population or having allegiance to both areas. This scale is included as APPENDIX-III of APPENDICES. First of all, items relating to caste, family, education, occupation, income, possessions (material and monetary) lands (agricultural/residential), participation in social, political, religious and academic activities, house (own or rented) size of house etc. were framed and the selected set contained 25 items.

Reliability

Reliability of this test was calculated by test-retest method. One hundred subjects were administered the SES scale twice after a gap of one year. The coefficient of stability was found to be 0.653. Fifty subjects were administered the scale again after a gap of 30 days and the coefficient of stability was 0.944. For internal consistency Cronbach Alpha was calculated on normalized (with a mean of 50 and SD 10) T scores (N = 500) and was found to be 0.791.

3.5 ADMINISTRATION OF TESTS

For collection of data from university Judokas, the researcher has to seek co-operation from many quarters. He visited some of the Universities where the Inter-University Judo Camps were being conducted. He approached the Directors of Sports of various universities to seek co-operation for collection of data. Information regarding the date, venue and timing of each coaching camp was also obtained well in advance.
telephonically. With the verbal consent of the coaches, the timings of administration of the tests were decided in consultation with them so that the coaching schedule of the selected Judokas was not disturbed and no distraction or minimum distraction could be caused. All the three tests were administered in pre-coaching camps and during competitions. All the tests were administered one after the other and before the commencement of each test, the test instructions were read out to the Judokas and they were allowed to ask questions, if any. Each Judokas was requested to hand over the duly filled response sheet as soon as possible.

Thereafter, on 06.2.2010, the researcher approached the Director, Sports, Panjab University, Chandigarh with a request to allow him to administer the three tests on Judokas participating in All India Inter University Judo Championship for Men & Women held from 07.2.2010 to 09.2.2010 and 12.2.2010 to 14.2.2010 respectively in which approximately 300 girls and 400 boys were participating. In all, a sample of 300 Judokas who participated in the above championship were collected by the researcher. On completion of the research work on 14.2.2010, a certificate to this effect was issued by Dr. Rakesh Malik, Assistant Director Physical Education and Assistant Organizing Secretary, AIIU Judo (Mem & Women) Championship 2009-10.

3.6 METHOD OF SCORING

The three major inventories which were used in the investigation were scored as follows:

3.6.1 Sports Achievement Motivation

The Sports Achievement Motivation Test consisted of 20 items. Each item was followed by the two statements (a) and (b), one correct and the other incorrect. For marking the
right statement, 2 marks were given and for the wrong answer, 0 was assigned. Each Judoka must have filled the personal information like Age, Sex, Address, and Education etc. before submitting the sheet. The key to the questions had been provided in Scale Manual.

3.6.2 Attitude

The scale is based on the Thurstonian Technique, where each item possesses its typical ‘scale-value’ and the total score pertaining to any specific attitude area consists of the total of such scale values ticked by the participant. The scale has 150 items for six attitude areas and each attitude has 25 items. The Scale Booklet was distributed to Judokas for careful reading. The Judokas selected were a small manageable group in congenial situation. The key value for the scoring had been provided in the Table No. 4.2 of the Attitude Manual.

The Answer Sheet

The ‘Answer Sheet’ was distributed among the participants along with the ‘Scale Booklet’. The Judokas were clearly instructed to use this sheet alone. There were instructed to read the ‘Scale Booklet’ to choose the item they like and make a ‘tick’ on this ‘sheet’ on its serial number that tallies with the serial number of the ‘Scale Booklet’. The Judokas were requested that they must fill up the ‘Schedule’ of the ‘Sheet’ along with the date and signatures after finishing the work.

Scoring Sheet

Scoring Sheet was used by the researcher afterwards. The tester has filled up the Schedule of the ‘Sheet’ himself. He has consulted Table No. 4.2 of the manual. The
items ‘ticked’ by the Judoka and filled up the Scale Values in appropriate ‘spaces’ as directed by the Table No. 4.2. Attitude wise total score of the ticked items was filled in the ‘table-space’ provided on the facing page of ‘Scoring –Sheet’.

3.6.3 Socio-Economic Status

The Socio-Economic Status test consisted of 25 statements in the scale; one item each for caste and occupation, two items for family (type and size), one item for educational qualifications of self and other members. Four items related to monetary matters i.e. income, saving, income tax and deposits. One item was kept for entertainment expenses per month while four items relate to housing (type and size). Item No. 15 (real estate) has been divided into three parts (A) agricultural land holding, (B) residential plots and their sizes, (C) shops and their locations. In order to cover life areas nine items relating to social, religious, political and academic participation have been included. Item No. 25 relates to household possessions (material and livestock). Thus the items in the scale are related to caste/class, occupation, family, education, income, housing, relational network and material and livestock possessions. Score on item No. 5, 7, 14, 15 and 25 are additive whereas on rest of the items only single score is given. Every question in the Manual of 25 questionnaires was assigned 0 to 10 scores. The scoring procedure i.e. Scoring Key is described in the Manual for SESS. The scores of A, B, C, D and E were added to get a final score on item No. 25. However, the total raw scores of each ticked question were also added for all the items to get a final score for Socio-economic Status.
3.7 STATISTICAL ANALYSIS OF DATA

The data obtained through simple random sampling was compiled and tabulated variable wise. This data exploration has been performed through data sampling, data editing, data coding, and classification. The present study applied the ‘t’ test for the analysis, using SPSS software. The results of this ‘t’ test included mean value, standard deviation, number, ‘t’ value, and df. Final conclusions were drawn and were also compared with the significant value at .05 level of confidence at 95 degree of freedom. Corresponding to each table, various figures have been drawn in Excel for the graphical representations of results and relationships between variable as well as their significance.