CHAPTER III

PROCEDURE

In this chapter the procedure adopted for the selection of the subjects, selection of test items, procedure for administering the test items, collection of data and the method employed for statistical analysis of data are described.

SELECTION OF SUBJECTS

90 sub-junior/Junior/Senior National Level Judo players were selected as the subject from National level coaching camp organized by Judo Federation of India.

SELECTION OF VARIABLES

The different dimensions of anxiety mention in manual of state-trait anxiety test are considered as the variables of the study.

Research Tool

STAT state – trait test developed by Sanjay Vohra was utilized as the research tool for the collecting data. The STAT was developed as a means of getting clinical anxiety information in a rapid, objective, and standard manner. IT is a brief and non stressful test, applicable
to all but the lowest educational levels. It is appropriate for use in chronological ages of 14 years and above throughout adulthood. The scale gives an accurate appraisal of anxiety level, supplementing clinical diagnosis, and facilitating all kinds of research screening operations where very little diagnostic or assessment time can be spend with each examinee.

The test includes the best 40 anxiety items among several thousand personality items which had been examined up till now. The number of items per anxiety components is approximately proportional to that component’s importance in the anxiety patterns. Further division of items was made into (A) those which appeared more covert or less obvious, and (b) those which refer to anxiety symptoms. Each question has three possible answer, “Yes, No & Sometimes.

All answers are marked directly on the tow inside pages of the four page test booklet. The front cover is used for examinee identification and for the instructions, the back cover for recording scores and making profile.
This questionnaire is of the self-rating type and can be administered in a group, with 5 points to rate viz. Always, Frequently, Sometimes, Rarely and Never. It has no time-limit. The scoring device was simple, stencil type having a numerical weight age from 4 to 0 for the positive items and reverse of it for the negative items.

**Item Analysis**

For item analysis and item analysis and item-discrimination values, Johnson’s U.L.I. Method (vide Guilford, 1954) was applied, taking 27% upper and 27% lower achievers out of a group of 46 boys and girls. A slightly modified version of the same technique was applied to obtain items-indices on the basis weights of the scale 4 and 3 was taken and analysis was done with the same formula. Values obtained by both these methods were subjected to correlation to see the consistency of the two methods. The Correlation coefficient obtained was .92 which was highly significant.

In the final scale, out of 50 items. 13 are negative and 37 are positive items.
Reliability of Tests

Test-retest method was applied to obtain the reliability coefficient of the scale. Taking different sets of sample, the administration of the scale was repeated on several occasions. The results are given below:

These coefficients of reliability are sufficiently high and the scale can be considered as reliable for use. Earlier, Entwistle (1968) for 24 items inventory obtained test-retest reliability coefficient of .83 with and intervals of 2.5 months. Lynn (1969) found that his achievement motivation questionnaire correlated to the extent of 34 with the factor of Cattell's 16 PF, as 156 with super age and n=21 with surgency. Bending (1964) established the reliability coefficient of .68 for men and .62 for women for his factor –analytic scale-feed achievement. Costello (1967) obtained as split-half reliability coefficient of .82 for scale. And .73 for scale. Smith (19873) computed a split-half reliability coefficient of.56 his 10 items quick measure of achievement motivation. Talking into consideration these results, the present scale reliability coefficients by test-retest method for the total group, as well as for the separate male and female groups, are very satisfactory and the scale can be taken as quite reliable for use.
Validity of the Scale

As far as the validity of the scale is conceded, in the first instance that item validity established by the high-low discrimination method was accepted as the validity of the whole measure. Besides, this scale was also used for validating the projective test of Achievement Motivation. The Coefficient of correlation between the scale and the projective test was observed to be 54 which speaks for the validity of the scale also. The validity being of the concurrent nature. Finally the scale scores were also correlated with the scores obtained by administering the Aberdeen-Academic Motivation inventory of Entwistle (1968) yielding a coefficient of correlation as .75 for a mixed sample of .93. This correlation is high enough to establish the validity of the scale. Regarding the r of the 54 between the scale and the projective test. McClelland (1958) explains that self-descriptive and projective measures are usually not correlating high with each other. Even Carney (1966) observed that questionnaire measures correlated poorly with McClelland’s projective measures. These explanations support the results of present scale of achievement motivation to be sufficiently valid for use for measuring achievement motivation.
Administrations of the Tests

The scale can be administered individually as well as in a group of about 25-30 subjects. With the use of microphone and a few assistants to help, even a much larger group can be given the scale at a time. The subjects should be seated comfortably, at some distance from each other and all within such distance that every subject can clearly hear the tester's voice. The tester should make sure that each subject has a pen for marking responses. First, the answer sheets should be distributed, one to each subject and the subject should be asked to write down his/her particulars i.e., name, age, gender and college/school name and address, phone number, residence particulars etc. After ensuring that this is properly done by all the subjects, the tester should distribute the scale booklets giving one to each subject.

The Directions printed in the test booklet should be read out loudly and properly explained verbally. If anyone has any queries, doubts or questions, these should be properly clarified and explained. The subjects should be told that there is not time-limit but they are expected to work fast and give their honest, frank and first response to each item. Every item is to be answered by the subject.
After the subjects finish marking their responses. The test booklets should be collected along with the answer sheets. That completes the procedure of administration

**Procedure of Scoring by Judges**

One stencil keys is to be used for scoring positive and negative items. A positive item carries the weights of 4,3,2,1 and 0 for the categories of Always, Frequently, sometimes, Rarely and Never respectively. The negative item is to be scored 0,1,2,3 and 4 for the same categories respectively that age given above. Separate keys for positive and negative items are provided. The total scores is the summation of the positive and negative items scores. The minimum score obtained can be 0 (zero) and the maximum can be 200, other scores ranging in between these limits.

This is a quick-scoring, self-administered scale which is also quick in administration and very easy for use in administration as well as scoring.

**Procedure for Collection of Data**

To collect data The STAT questionnaire was administered to the athletes for the study by the investigator himself. The objective of
the test was explained to the athletes and they were asking to respond to each statement as truthfully as possible. As soon as they completed the test the investigator will collect the response sheets. The athletes were also assured regarding the confidentiality of their responses.

**Statistical Technique**

- To characterize the psychological profile of Judo players in relation to different level (Senior, junior, Sub Junior national) descriptive statistics t-test was used.
- Further, Analysis of variance (ANOVA) was applied in order to compare the psychological characteristics of Judo players at different level. The level of significance was set at 0.05.
- To determine comparative t-test relation of psychological variable of different level (Senior, junior, Sub Junior national).
- The data was analyzed with the help of 17.0 versions of SPSS.