Chapter – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The purpose of this study was to construct a specific fitness test battery for Judokas of All India Intervarsity level.

The subjects of this study were 150 Judokas who represented different universities in All India Intervarsity Judo Championship held in the year 2002-03 and 2003-04.

As the Judo competition is conducted according to weight category. The data in this study were also collected on the basis of weight category of the subjects. Since sufficient number of subjects in all weight categories were not available for the purpose of preparing norms, some weight categories were clubbed and only three weight categories were retained i.e. (i) Lower Body Weight category of below 56 kg and below 60 kg; (ii) Middle Body Weight category of below 66 kg and below 73 kg and (iii) Heavy body weight category (above 73 Kg).

The factorial analysis technique was applied to develop a specific fitness test battery for the university level Judokas. Further Hull-scale and T-scale were used to prepare the norms.
Firstly, for the measurement of the desired qualities of specific fitness of Judokas, a list of test items was prepared by the investigator, after a critical examination of relevant literature available, with consultations of Judo coaches, other experts in the field and also through the observations of the Judokas. Out of this list only 19 items were selected and were administered on 100 intervarsity Judokas in the academic session of 2002-03. The subjects were tested on these 19 different items of fitness test. The data obtained from these test items was subjected to factor analysis, and 8 factors were extracted after an orthogonal rotation of each factor. The test items which had the maximum loading were selected for a test battery. Each factor was given a suitable name based on the highest loading item of each factor.

The test battery of specific fitness of Judokas consists of 8 items namely modified dips, modified sit-ups, half squats with a partner of equal body weight. Uchikomi with O-goshi in one minute, standing broad jump, squat thrust in one and half minute, holding the legs with raised position and bridge-up test. The scientific authenticity of the tests was established by computing reliability, objectivity, validity and specificity. The coefficient of reliability obtained for all the eight fitness test battery items were 0.80, 0.84, 0.79, 0.85, 0.82, 0.83, 0.72 and 0.88 respectively. This indicates that the test items are reliable and the eight items test battery were administered on both occasions by the research scholar himself.
For the objectivity, an assistant administered the tests and the coefficient of objectivity for whole test battery was established. These values show that the specific fitness test for Judokas are objective.

For the purpose of establishing validity, construct validity was computed by using factor analysis technique. The second phase of this investigation related to the preparation of norms. For this purpose eight items specific fitness test battery was administered on 150 Judokas. The Hull scale and T-scale were used to prepare the norms for different eight specific fitness test items for intervarsity level Judokas.

**Conclusion**

Within the constraints and limitations of the study, the following conclusions were drawn:

1. The factor analysis yielded eight specific fitness test items as factors.

2. A test battery of eight items developed by the scholar has the ability to predict specific fitness of Judokas.

3. All eight tests namely modified dips, modified sit-ups, half squats with a partner of an equal body weight, Uchikomi with O-goshi in one minute, standing broad jump, squat thrust in one and half minute, holding the legs in raised position and bridge-up test indicated a highly significant relationship with Judo performance.
4. The newly developed test battery of specific fitness test meet the criterion of specific authenticity, that is, the test items are reliable, objective and valid.

5. The specific fitness test battery has been developed and standardized for Judokas of age group 17-25 years representing different Indian Universities in the All India Intervarsity judo Championships during year 2002-03 and 2003-04.

**Recommendations**

In the light of conclusions drawn, the following recommendations are being made:

1. The specific fitness test battery may be used by Judo coaches for the fitness tests periodically to evaluate the utility of their conditioning programmes and monitor the progress made by the Judokas.

2. The norms of this study may also be useful in assessing the development of the specific physical fitness of upcoming Judokas for the future.

3. The development of speed of movement, endurance, flexibility, explosive power and strength endurance of shoulder, legs and abdomen should be given top priority by Judo coaches.
4. Similar study may be carried out on different age group and female Judo players.

5. The result of this study may be used by coaches and physical educationists as an aid for the purpose of screening and selection of Judo players for their teams.

6. Coaches could develop a specific conditioning programme for Judokas in accordance with the findings of this study.

7. Similar studies may be conducted for other sports disciplines as well.