CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The summary of the research study, the conclusions drawn based on the results and the recommendation for future studies are presented below.

Prediction and explanation of scientific factors can be justified as the most important aspect of applied researches. Prediction of an event that is to take place or prediction at top-level players can be determined accurately to a greater extent by taking a number of measures in various skills and parameters specific to a particular game.

The purpose of the study was to predict volleyball playing ability from selected physical, physiological, anthropometric and skill variables of state level volleyball players. To achieve the purpose of the study, the investigator selected 100 state level volleyball players who were attended the State level coaching camps organized by Tamilnadu Volleyball Association, in the period of 2011-2014. The subjects selected were in the age group between 18 to 25 years.

In this study, the volleyball playing ability was predicted from 100 state level volleyball players with the help of selected predictor variables such as agility, muscular endurance, explosive power, shoulder strength, flexibility, resting heart rate, vital capacity, breath holding time, anaerobic power, blood pressure, leg length, arm length, arm girth, fore arm girth, and volleyball skills

such as, serve, set, attack, block and pass.. The volleyball playing ability was determined by subjective rating by three experts and was used as the criterion variable. The backward selection in multiple regression method was used to determine the prediction equation **(Thomas and Nelson, 1990).**

5.1.1 LEVEL OF SIGNIFICANCE

The volleyball playing ability of the state level volleyball players were predicted from selected physical, physiological, anthropometric and skill variables in this study. The selected dependent variable, volleyball playing ability were predicted from independent variables, agility, muscular endurance, explosive power, shoulder strength, flexibility, resting heart rate, vital capacity, breath holding time, anaerobic power, blood pressure, leg length, arm length, arm girth, fore arm girth, and volleyball skills such as, serve, set, attack, block and pass.. The backward selection in multiple regression method was used to determine the prediction equation (Thomas and Nelson, 1990). In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as appropriate.

The investigator explained to the subjects about the purpose of the study and the test administration procedure. Practice trials were conducted to help the subjects understand the method of testing.

The constant 'a' obtained for the regression equation was 2.413. The beta weights for the eleven selected variables were 2.016 for agility, 0.842 for muscular endurance, 0.952 for shoulder strength, 0.712 for flexibility, 0.0041 for

vital capacity, 0.199 for breath holding time, 0.423 for anaerobic power, 0.690 for arm girth, 0.768 for set, 0.556 for serve and 0.742 for block. Thus, the obtained equation for predicting volleyball playing ability of state level players was:

$$Y^1 = -2.016\ X_1 +0.842\ X_2 +0.952\ X_3 +0.712\ X_4 +0.0041\ X_5 +0.199\ X_6$$
$$+0.423\ X_7 +0.690\ X_8 +0.768\ X_9 + 0.556\ X_{10} + 0.742 + (\ -62.413)$$

Where Y^1 = the predicted score

X_1 = Agility

X_2 = Muscular endurance

X_3 = Shoulder Strength

X_4 = Flexibility

X_5 = Vital Capacity

X_6 = Breath Holding Time

X_7 = Anaerobic Power

X_8 = Arm girth

X_9 = Set

X_{10} = Serve

X_{11} = Block

a   = -62.413 (constant)

5.2 CONCLUSIONS

Based on the limitation and delimitation of the present research study, it was concluded that:

1. The volleyball playing ability could be best predicted from physical fitness variables, such as, agility, muscular endurance, shoulder strength and flexibility.

2. The volleyball playing ability could be predicted from physiological variable, such as, vital capacity, breath holding time and anaerobic power.

3. The volleyball playing ability could be predicted from anthropometric variables, such as arm girth.

4. The volleyball playing ability could be predicted from skills, such as, set, serve and block.

5. The variables, such as, pass, explosive power, height, leg length, resting heart rate, mean arterial blood pressure, arm length, fore arm girth and attack were excluded variables and considered as not good predictors for volleyball playing ability.

5.3 RECOMMENDATIONS

Based on the results and conclusions of the study, the following recommendations were drawn:

1. This study has shown that agility, muscular endurance, shoulder strength, flexibility, vital capacity, breath holding time, anaerobic power, arm girth, set, serve and block are the important predictors of volleyball playing ability; hence, it was suggested that the coaches and players can concentrate more on these variables for improving their performances.

2. The prediction equation determined in this research investigation could be used to select volleyball players at state level volleyball players.

3. State level volleyball players, coaches and physical education teachers could use this prediction equation to determine the volleyball playing ability.

5.4 SUGGESTIONS FOR FURTHER RESEARCHES

During the course of the study, the investigator had come across number of suggestions that can be looked into by future researchers. Some of the most important ones are detailed hereunder.

1. This study could be conducted with more number of predictor variables, so that more meaningful predictor variables may be selected on the regression equation to predict the volleyball playing ability.

2.   This study may also be conducted on different levels of volleyball players.

3.   The contribution of similar other variables such as psychological variables could be used to predict the volleyball playing ability.

4.   Similar research study could be conducted on other team and individual sports and games.

5.   Similar researches may be conducted among women volleyball players.