Chapter III
METHODOLOGY

Objectives of the study:

1) To examine the visual reaction time among national kabaddi players and national individual game players.

2) To find out the visual reaction time among male players and female players.

3) To explore the between types of players and gender dimension on visual reaction time.

4) To investigate the auditory reaction time among national kabaddi players and national individual game players.

5) To search the auditory reaction time among male players and female players.

6) To explore the between types of players and gender dimension on auditory reaction time.

7) To examine the extraversion among national kabaddi players and national individual game players.

8) To find out the extraversion among male players and female players.

9) To explore the between types of players and gender dimension on extraversion.

10) To investigate the neuroticism among national kabaddi players and national individual game players.

11) To search the neuroticism among male players and female players.

12) To explore the between types of players and gender dimension on neuroticism.

Hypotheses:

1) There will be no significant difference between national kabaddi players and national individual game players dimension on the visual reaction time.
2) There will be no significant difference between male players and female players dimension on the visual reaction time.

3) There will be no significant interaction between types of players and gender dimension on the visual reaction time.

4) There will be no significant difference between national kabaddi players and national individual game players dimension on the auditory reaction time.

5) There will be no significant difference between male players and female players dimension on the auditory reaction time.

6) There will be no significant interaction between types of players and gender dimension on the auditory reaction time.

7) There will be no significant difference between national kabaddi players and national individual game players dimension on the extraversion.

8) There will be no significant difference between male players and female players dimension on the extraversion.

9) There will be no significant interaction between types of players and gender dimension on the extraversion.

10) There will be no significant difference between national kabaddi players and national individual game players dimension on the neuroticism.

11) There will be no significant difference between male players and female players dimension on the neuroticism.

12) There will be no significant interaction between types of players and gender dimension on the neuroticism.
Sample:
For the present study 400 Sample was selected from Maharashtra state. The effective sample consisted of 400 subjects, out of whom 200 subjects were national kabaddi players (M = 21.36, SD = 3.25) and 200 national individual game players (M = 22.45, SD = 3.78). As well as ration of male and female was 1: 1. Non-probability quota sampling procedure was used for the selecting the sample.

Tools:
1) Eysenck Personality Test:
This test is developed and standardized by Eysenck. The test consisted of 78 Items. The subjects were required to respond to each item in terms of ‘YES’ OR ‘NO’. The reliability coefficient of the test was found 0.87 with Spearman Brown formula. The validity coefficient was found 0.91.

Data collection
To Measure the disjunctive RT of the team and Individual Game Players a specially designed instrument called as electronic chronoscope which measure both Visual and Auditory RT was used. It consists of four different types of sound for Authority RT. It is very sophisticated apparatus which measures RT up to 1/1000 of sounds; time taken by the subject in giving response to the stimulus is recorded with a digital timer in mile-second.

Procedures of data collection
The data were collected during the matches for measuring RT first of all they were given instruction in a group of 4 – 6 players about the use of electronic chronoscope apparatus. Then each one was called made to sit comfortably before the apparatus, before the start of the Experiment, the following instruction are given.
‘Here I am measuring your quick responses to light and sounds you find that there are four seconds of different colors and four sounds of different types. I will switch on one the light and you are to switch off the same light with the four finger of your right hand as fast as you can. You cannot use all the fingers. Similarly, I shall give you a sound and you are to press the button of the same sound. Will give you many trials, both lights as well as for songs and on each trial. I will give you ready signal. Before final experiment work, first of all a few practice trials were given in order to make them acquainted with the working of the apparatus and also to make them adopted with the different types of sounds. When it was ensured that the subject had understand the what procedure take trials for both Visual and Auditory the time as recorded on the digital timer was noted down for each trials, the average of then trials was considered as the reaction time of team and Individual Game players.

Variables of the study:

**Independent Variable:**

3) Types of Players
   a) National Kabaddi Players
   b) National Individual Game Players

4) Sex
   a) Male
   b) Female

**Dependent Variable:**

1. Visual Reaction Time
2. Auditory Reaction Time
3. Extravert
4. Neuroticism
**Research Design:** 2x2 balanced factorial design was used.

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<th>A1</th>
<th>A2</th>
<th>Total</th>
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**A = Types of Players**

- **A1** = National Kabaddi players
- **A2** = National Individual Game players

**B = Gender**

- **B1** = Male Players
- **B2** = Female Players