CHAPTER – 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

A method is a way in which an activity is done. It can be described as step-by-step procedure followed in the execution of a research project. Research work cannot be carried out successfully without a sound methodology and setting of the study. From the above mentioned definitions it is clear that research is concerned with pure economic phenomena, it aims at finding out the old or new facts through scientific method, which is based on logic and systematic steps. Through research we can find out economics facts by means of scientific method only.

Research is the art of inquiry. Like any other art involves imagination and the skillful use of techniques. Its objectives are to discover truth, to explain the unintelligible by revealing new facts, or by conceiving a new idea or a theory, logically acceptable and capable of systematizing the extent knowledge of some particular field of phenomena. Researches, therefore, widens, deepens and increase our mastery over it. Research is a scientific pursuit of truth.
3.2 PROBLEM STATEMENT

“ACOMPARATIVE STUDY OF VOLLEYBALL AND BASKETBALL PLAYERS WITH RESPECT TO THEIR MOTIVATION, PERSONALITY AND EMOTIONAL MATURITY”

3.3 SIGNIFICANCE OF THE STUDY

One of the important goals of education is to promote overall growth and development. It would be quite beneficial to have players profile. This would help us not only in selecting players but also to guide them and develop them. Personality plays an important role in sports success. Therefore personality was considered as one of the variable. Players are also expected to be emotionally mature. Every activity is governed and directed by some kind of motivation. Motivational analysis would be of great significance for selecting and developing the players. Relevant instruments measuring the above variables would be properly selected.

3.4 OBJECTIVE OF THE STUDY

The major objective of the present research will be as under:

• To compare basketball and volleyball players with respect to their motivation.
• To compare basketball and volleyball players with personality correlates.
• To study emotional maturity of basketball and volleyball players.

3.5 HYPOTHESIS OF THE STUDY

According to the research objectives, the hypothesis should be checked. The below hypothesis are formed according to the research.
• There is no significant difference between volleyball players and basketball players regarding motivation.
• There is no significant difference between male volleyball players and male basketball players regarding motivation.
• There is no significant difference between female volleyball players and female basketball players regarding motivation.
• There is no significant difference between Less than 5 years experience volleyball players and Less than 5 years experience basketball players regarding motivation.
• There is no significant difference between More than 5 years experience volleyball players and More than 5 years experience basketball players regarding motivation.
• There is no significant difference between undergraduate volleyball players and undergraduate basketball players regarding motivation.
• There is no significant difference between post-graduate volleyball players and post-graduate basketball players regarding motivation.
• There is no significant difference between volleyball players and basketball players regarding personality.
• There is no significant difference between male volleyball players and male basketball players regarding personality.
• There is no significant difference between female volleyball players and female basketball players regarding personality.
• There is no significant difference between Less than 5 years experience volleyball players and Less than 5 years experience basketball players regarding personality.
• There is no significant difference between More than 5 years experience volleyball players and More than 5 years experience basketball players regarding personality.
• There is no significant difference between undergraduate volleyball players and undergraduate basketball players regarding personality.
• There is no significant difference between post-graduate volleyball players and post-graduate basketball players regarding personality.
• There is no significant difference between volleyball players and basketball players regarding emotional maturity.
• There is no significant difference between male volleyball players and male basketball players regarding emotional maturity.
• There is no significant difference between female volleyball players and female basketball players regarding emotional maturity.
• There is no significant difference between Less than 5 years experience volleyball players and Less than 5 years experience basketball players regarding emotional maturity.
• There is no significant difference between More than 5 years experience volleyball players and More than 5 years experience basketball players regarding emotional maturity.
• There is no significant difference between undergraduate volleyball players and undergraduate basketball players regarding emotional maturity.
• There is no significant difference between post-graduate volleyball players and post-graduate basketball players regarding emotional maturity.

3.6 VARIABLES UNDER STUDY

1) Independent Variables:

Gender:
• Male
• Female
Experience:
- Less than 5 years
- More than 5 years experience

Education:
- Undergraduate
- Post-graduate

2) Dependent Variables:
In this study there are three dependent variables with dimensions.
- Motivation,
- Personality,
- Emotional maturity

3.7 SAMPLE
In the present research the total sample consisted of 240 respondents.
Sampling of student’s players would be done from selected universities of Gujarat state.
3.8 RESEARCH DESIGN OF THE STUDY

This research will be adopted 2x2x2 factorial design with 2 types of gender (male and female players), experience (less than 5 years and more than 5 years) and two level of education (undergraduate and post graduate student’s players)

<table>
<thead>
<tr>
<th>Volleyball Players</th>
<th>Basketball Players</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Graduated (A₁)</td>
</tr>
<tr>
<td>Less than 5 Years</td>
<td>More than 5 Years</td>
</tr>
<tr>
<td>Exp. (B₁)</td>
<td>Exp. (B₂)</td>
</tr>
<tr>
<td>Male (C₁)</td>
<td>30</td>
</tr>
<tr>
<td>Female (C₂)</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

N=240 & n=30

A = Education

A₁ = Graduate

A₂ = Post graduate

B = Experience

B₁ = Less than 5 years

B₂ = More than 5 years

C = Gender

C₁ = Male

C₂ = Female
3.9 TOOL USED

For the data collection following tools will be used:

- **INCENTIVE MOTIVATION INVENTORY**

  It is a test of a player’s strength of attraction for incentive operating within goal-oriented situations. Incentive competition motivation provides information on the athlete’s major reason for participating in particular sports.

  Motivation to participate in competitive sports was classified into seven major incentive system, viz, excellence (ex), power (po) sensation (Se) Independence (md), aggression (agg), affiliation (aft), a modified version of these incentive system was by alderman and wood to examine the more specific motivation of athletes. The incentive motivation
inventory was an instrument perforating to evaluate the incentives perceived by young athletes as being available and attractive to them through competition sports participation.

The Inventory contains 70 Items; these question statements are evenly spread over the seven incentive systems i.e. there are ten question statements for each system. The subjects respond using a four point ordinal scale. Response inventory for each item varies from 1 (Never) to 4 (Always) in order to ascendance of the feeling, hence the maximum response score from the total inventory is 280 minimum 70 and in case of each system the response ranges from 7 to 40.

The normative response intervals for each of the systems are given below:

- 0—18 Low
- 18 — 22 Below average
- 22 — 28 Average
- 28 — 32 Above average
- 32—40 High

The treatment of data emanating from the administration of IMI was done accordance with the instructions of the author and objectives of the study.

 Emotional maturity scale (EMS) by P.Y.Singh and Mahesh Bhargava.

This scale asks the Develop Y. Singh and M. Bhargava. Emotional Maturity Scale the It contains 48 items under the five categories emotional instability, emotional regression, social maladjustment, personality disintegration and lack of independence.

Independence is the capacity of a person’s attitudinal tendency to be selfreliant or of resistance to control by others where, he can take his
decisions by his own judgment based on facts by utilizing his intellectual and creative potentialities. He should never like to show any habitual reliance upon another person in making his decisions or carrying out difficult actions. A dependent person shows parasitic dependence on other is erotic and lacks ‘objective interests’. People think of him an unreliable person.

Each item in the emotional maturity scale consisting of very much, much, undecided, probably and never options with the score of 5, 4, 3, 2 and 1 mark respectively. The total range of the scoring lies in between 48-240. In the interpretation if the score lies in between 50-80 extremely stable, 81-88 moderately stable, 89-106 unstable and 107-240 extremely unstable. Likewise the score measures the negative score of the individual.

**Singh differential personality inventory by A.K. Singh.**

Singh’s Differential Personality Inventory (SDPI) developed by Dr Arun Kumar Singh & Ashish Kumar Singh at Department of Psychology, Patna University, Patna(Bihar). The Singh”s Differential Personality Inventory (SDPI) formerly known as Differential Personality Scale measuring only nine dimensions is a heterogeneous measure of personality, which now measures ten dimensions of personality.

The present personality scale has altogether 150 items. The total number of items in each of the ten dimensions has been presented. The scoring is done with the help of the scoring stencil prepared separately for the ten personality areas on then scoring key. When a response of an item given by the testee tallies with the response of item given in the scoring key or when his/her tick mark is shown in the circle of the scoring key it is given a score of 1. In case, the response given by the testee does not
tally with the response given in the scoring key, a score of zero is awarded.

Singh’s Differential Personality Inventory (SDPI) has both test-retest reliability and internal consistency reliability. For calculating test-retest reliability the test has been administered twice with a gap of 14 days on an unselected sample of 100. The test-retest reliability coefficient ranges are from .73 to .86. Which were high and significant indicating that the different dimensions of the scale have sufficient temporal stability. Likewise the internal consistency reliability has been calculated by both odd-even method as well as first half vs. second half method. All reliability coefficients internal consistency as well as temporal stability has been presented.

Singh’s Differential Personality Inventory (SDPI) has been validated against a number of criteria. In doing so, the scale yielded highly satisfactory validity. Some of the important criterion against which the scale has been validated are presented below:

1) It has been validated against the scores of Bell Adjustment Inventory as adapted by Mohsin and Shamshad (1970). The obtained correlation coefficients between each ten dimension as well as five areas of Bells Adjustment Inventory were negative which ranged from -.02 to -.077. Some of the values were significant at or beyond .05 level and some were significant at or beyond .01 level. Inventory also yielded Satisfactory validity coefficients against some ratings.

2) It has also been validated against a number of personal and biographical variables. Most of the chi-square values were significant at or beyond .05 and .01 level which, themselves, provide evidence for high validity of the scale.

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3.10 STATISTICAL ANALYSIS

To analyze the data F test analysis of variance was used in order to study main and interaction effect of three independent variables (Gender, Experience and level of education).

3.11 The planning of the chapters of the study

The whole research reporting is divided in to five chapters. Which are as below:

**Chapter – 1 introduction**
Present study includes the concept of included words and also the related literature, the objectives of learning and also the chapter mixing is included.

**Chapter – 2 review of literature**
This research concludes Motivation, Personality and Emotional maturity related pre – research is mentioned.

**Chapter – 3 research process**
The research process is included in this chapter. The sample, hypothesis, tools, data collection process and also the analysis methods are concluded in this chapter.

**Chapter – 4 results and discussion of research**
The total percentage is presented in the various tables in the form of information. The analysis and discussion of the result for this factorial design is “Analysis of Variance” is presented students’ Motivation, Personality and Emotional maturity is discussed. There are 2 types of gender (male and female players), experience (less then 5 years and more than 5 years) and two level of education (undergraduate and post graduate student’s players). Therefore, it is a 2X2X2 factorial design.
Chapter – 5 Summary, Conclusion & Suggestion of research
The study implications received from the analysis of F –Test, the conclusion and suggestions and the suggestions for the future research are presented.

At the end, the reference – list, the samples of the tools of the research’s appendix is also presented.