

CHAPTER - III
PROBLEMS AND METHOD

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The present chapter is divided into three sections. The first section of the present study includes problem and hypotheses and the second section, i.e., methodology deals with the experimental design, sampling, selection of the subjects (sports players) and the last section deals with tools and procedure of data collection.

Problems:

Problems Related to Risk-Taking Behaviour:

1. The first problem of the present study is related with the effect of player's participation in the type of sport event, i.e., individual event and team event on risk taking behaviour of sport players.
2. The second problem of the present study is related with the effect of different level of sport participation, i.e., sub junior level, junior level and senior level on risk taking behaviour of sport players.
3. The third problem of the present study is to examine the effect of the gender on risk taking behaviour of sport players.

Interaction Effect:

From the aforementioned three main problems following problems arise owing to the interaction of the three independent variables.

4. The fourth problem of the present investigation is to study the interaction effect between type of sport event and level of sport participation of sport players on their risk taking behaviour
5. The fifth problem of the present investigation is to study the two way interaction effect between type of sport event and sex of the sport player on risk taking behaviour.
6. The sixth problem of the present study is to determine the interaction effect between level of participation and sex of player on risk taking behaviour.
7. The seventh problem of the present inquiry is to study the triple interaction effect amongst type of sport event, i.e., individual event and team event, level of sport participation, i.e., sub-junior level, junior level and senior level and sex, i.e., male and female on risk taking behaviour of sport players.

Problems Related to Social Responsibility:

As in the case of risk taking behaviour, seven problems have

been formulated for the study of social responsibility. These seven problems are:

1. To study the effect of two type of sport event, i.e., individual event and team event on dependent variable, i.e., social responsibility.
2. To find out the effect of three level of sports participation, i.e., sub-junior level, junior level and senior level on social responsibility.
3. To determine the effect of sex, i.e., male and female of players on social responsibility.
4. To study the interaction effect between type of sport event and level of sport participation of players on their social responsibility.
5. To find out the interaction effect between type of sport event and sex of players on their social responsibility.
6. To determine the interaction effect between level of sport participation and sex of players on social responsibility.
7. To study the three-way interaction effect between type of sport event, level of sport of participation and sex of sport players on their social responsibility.

Hypotheses:**Hypotheses Related to Risk Taking Behaviour:**

1. It is hypothesized that players' participation in two type of sport event, i.e., individual event and team event will have significant effect on risk taking behaviour of sport players.
2. It is hypothesized that three level of sport participation of players, i.e., sub-junior level, junior level and senior level will significantly affect the risk taking behaviour of sport players.
3. It is hypothesized that sex of the player will have significant effect on risk taking behaviour.
4. Two way interaction between type of sport event and level of sport participation will have significant effect on risk taking behaviour of sport player.
5. Two way interaction between participation in the type of sport event and sex of player will have significant effect on the risk taking behaviour of sport player.
6. There will be significant interaction effect between level of sport participation and sex of player on their risk taking behaviour.

7. There will be significant interaction effect among type of sport event, level of sport participation and sex of player on risk taking behaviour of sport players.

Hypotheses Related to Social Responsibility:

1. It is hypothesized that two type of sport event, i.e., individual event and team event will effect significantly the social responsibility of the sport players.
2. It is hypothesized that three level of sport participation, i.e., sub-junior level, junior level and senior level will have significant effect on the social responsibility of the players.
3. It is hypothesized that sex of the players, i.e., male and female will affect significantly social responsibility of sport players.
4. There will be significant interaction effect between two type of sport event and three level of participation of players on social responsibility.
5. There will be significant interaction effect between type of sport event and sex of players on social responsibility of sport players.
6. There will be significant interaction effect between three level of sport participation and two type of gender on social responsibility of sport players.

7. There will be significant interaction effect among type of sport event, level of sport participation and sex on social responsibility of sport players.

Variables:

Independent Variable

The present research work has aimed at the study of three independent variables. The first independent variable, i.e., type of sport event has been symbolized as 'A' having two level viz., individual event and team event and they are symbolized as A1 and A2. The second independent variable, i.e., level of sport participation of the player symbolized as 'B' has been varied at three level, i.e., sub-junior level, junior level and senior level players and they are symbolized as B1, B2 and B3. The third variable, i.e., sex of the sport player, symbolized as 'C' obviously has two distinct categories, i.e., male and female and they are symbolized as C1 and C2 as shown in figure 3.1.

Dependent Variable

Two dependent variable are risk taking behaviour and social responsibility.

Design: The design of the present study comprised of three-way between group factorial design of $2 \times 3 \times 2$ with 12 cells (groups) in which treatment consisted of all possible combinations and an equal number of observations for each treatment (Edwards, 1971). A factorial arrangement of the treatment conditions specified by 12 groups (cells), each cell consisting. 25 players is presented in figure 3.1. So far as dependent variable is concerned, the risk taking behaviour and social responsibility are used as dependent variable.

Sample: Three hundred sport players were selected in the study as sample. These 300 players consisted of 150 players of individual event and 150 players of team event. In each group of 150 sport players, 50 players were of sub-junior level, 50 players were of junior level and 50 players were of senior level. Each sub-group of 50 player was having equal number of male and female sport players, i.e., 25 male sport players and 25 female sport players. These players were selected from the state of U.P., Haryana, Punjab, M.P. and Delhi where the national sport events were organized. A detailed distribution of the sport players is given in table 3.1.

Table-3.1: Showing the distribution of the Sport Players

Level of Sport Participation (B)	Type of Sport Event (A)			
	Individual Event (A1)		Team Event (A2)	
	Sex (C)			
	Male (C1)	Female (C2)	Male (C1)	Female (C2)
Sub-Junior Level (B1)	25	25	25	25
Junior Level (B2)	25	25	25	25
Senior Level (B3)	25	25	25	25

Tool and Procedure:**Tool**

Following Psychological tools were used:

(i) Risk-Taking Questionnaire (R.T.O.):

Arora & Sinha (1983) Department of Psychology, Raza Govt. (P.G.) College, Rampur constructed a tool to measure the risk-taking tendency. This was standardized for Indian culture and was quite different from existing tools to measure the phenomenon. This RTQ was used in this study to measure the magnitude of risk-tendency of sport players. In 1983, Dr. Virendra Sinha along with Dr. P.N. Arora, constructed the questionnaire to measure the risk-tendencies of male and female of different age groups. To make this questionnaire more scientific and objective, it was decided by the authors to:

- (a) use the Hindi language in RTQ
- (b) have equal number of items for each area of the risk
- (c) have the same response categories
- (d) have the same arrangement of the items for different areas of risk
- (e) adopt same scoring procedure for the entire questionnaire and
- (f) establish the reliability and validity of the test.

The language of the questionnaire is simple Hindi language. There are forty (40) items in all in R.T.Q. Five learning categories, i.e., 'very much', 'much', 'moderate', 'less' and 'very less' are provided on which the responses of the respondents are taken.

The instructions of RTQ are written in the simplest form of Hindi and clear pieces of the sentences. The instructions can be seen on the cover and title page of RTQ.

Scoring Procedure: The scoring of the tool is based upon five point rating scale. The subject is asked only to tick the leaning category, most liked by him. Each item is to be ticked out by the subject. In RTQ the five leaning categories, i.e., very much, much, moderate, less and very less, carry 5, 4, 3, 2 and 1 score respectively. The maximum score in RTQ is 200 and the minimum score is 40.

Reliability: In a number of studies the test-retest reliability has been established for each and every area. The reliability for adolescent, adult and old male and female were also calculated by "Split Half Methods" on a sample of 109 male and 100 females. The reliability for male and female adolescents was obtained 0.79 and 0.68 respectively with a time interval of 15 days.

Validity: The face validity of RTQ was ascertained by putting simple, relevant and very clear items. These items were judged perfect and related with the areas of risk by panel of 5 experts. The factorial validity of RTQ was computed with the help of randomly selected sample from Rampur district and correlation was found to be .82.

The concurrent validity of RTQ was also computed, correlating the RTQ score on a sample with a standard criterion named S.M. Anwar Yousef's Risk-Taking Opinion Questionnaire. The coefficient of correlations were calculated both for risk and non risk-takers. The coefficient of correlation for risk and non-risk takers was found 0.82. The manual also reveals the category of risk takers for male and female sample on three age group, i.e., adolescents, adults and old.

Table 3.2: Category of Risk Taking in Terms of Total Risk-Taking Scores of Male and Female on RTQ

Description of Risk Tendency	M.Adu.	Range of RTQ Total Scores			F.Adu.	F.Old.
		M.Adu.	M.Old.	F.Adu.		
High Risk Taker	165 & Above	170 & Above	155 & Above	148 & Above	150 & Above	140 & Above
Moderate Risk Taker	80-164	90-164	85-154	65-154	70-149	65-139
Low Risk Taker	79 & Below	89 & Below	84 & Below	64 & Below	69 & Below	64 & Below

(ii) Social Responsibility Scale:

A social responsibility scale was developed by Prof. S.N.Rai and Mrs. Mamta Gupta.

Construction of Social Responsibility Scale

Social responsibility assumes the form of a keen social sensitivity, social orientation and social perspective. Responsibility is required in different aspects of society, whether it is family, neighbourhood, school, or even unknown people. Items of scale are related with each aspect of society where responsibility is needed. There were 50 items in the preliminary draft, with five point scale, ranging from "Always" 'Often', 'Sometimes' 'Rarely' and 'Never'. These items were given to a panel of five judges for identifying the grossly irrelevant elements, if any, revealing their gross limitation and defects in their language, contents and format etc.

After pre try-out, 20 items were eliminated from the scale, and 10 buffer items were added according to the suggestion of judges. This scale was administered on 100 people of Meerut district. This scale had no time limit, but was completed in nearly 20 min. Those items, which confused the respondents were modified and improved according to supervisor's suggestions.

In this way, the final form of Social Responsibility Scale was prepared having 40 items, 30 real items and 10 buffer items. Social responsibility was assessed using five point scale, consisting of both favourable and unfavourable items. Each item was to be rated on five alternatives i.e., always, often, sometimes, rarely and never.

Instructions: इस मापनी में कुछ कथन दिये गये हैं, जो प्रतिदिन के व्यवहार से सम्बन्धित हैं। प्रत्येक कथन के साथ 5 सम्भावित उत्तर भी दिये गये हैं। ये सम्भावित उत्तर हैं— सदैव (Always), प्रायः (Often), कभी-कभी (Sometimes), बहुत कम (Rarely) तथा कभी नहीं (Never)। आप प्रत्येक कथन को ध्यानपूर्वक पढ़ें तथा जो आपको अपने लिए सबसे उचित उत्तर लगता हो, उस सम्भावित उत्तर के नीचे बने कोष्ठक के बीच (✓) का चिन्ह लगा दें।

इस मापनी का कोई भी उत्तर सही अथवा गलत नहीं है। आपके उत्तरों को पूर्णतः गोपनीय रखा जायेगा। अतः आप सही-सही उत्तर दें। प्रत्येक कथन का उत्तर दें तथा कोई कथन छोड़ें नहीं। यदि आपको निर्देश को समझने में कोई कठिनाई हो तो आप निःसंकोच पूछ लें।

Scoring: This scale consisted of both favourable and unfavorable items. Two different patterns of scoring had to be adopted for these two types of items, i.e., favourable and unfavourables. The following table will help to score the responses

Table-3.3: Scoring table of Social Responsibility Scale

Item	Social Responsibility Scale	Scoring
Favourable	1, 3, 6, 9, 11, 14, 17, 19, 22, 25, 27, 31, 33, 35, 38, 39 Total = 17 items	5 to 1
Unfavourable	2, 5, 7, 10, 13, 15, 18, 21, 23, 26, 30, 34, 37 Total = 13 items	1 to 5
Buffer items	4, 8, 12, 16, 20, 24, 28, 32, 36, 40	No Scoring

The score of all favourable and unfavourable items are added to obtain Social Responsibility Score.

Reliability: The coefficient of reliability was conducted by Test-Retest method (N=100). Spearman's Rank Difference correlation between the test and retest scores was + 0.80.

Validity: Content Validity of the test was determined by Lawshc's Content Validity Ratio Method. The Validity of test was + 0.78.

Norms: Norm is the table of scores which provides meaning to the score. Norms for the scale had been prepared on 1000 people of different age group. Percentile norms for the scale are given below.

Table-3.4: Norm Table

Percentile	Score	Interpretation
99	147	Extremely High Social Responsibility
95	138	
90	136	
80	131	
75 (Q ₃)	128	High Social Responsibility
70	125	
60	121	Average Social Responsibility
50 (Mdn)	115	
40	110	
30	107	Low Social Responsibility
25 (Q ₁)	104	
20	101	Extremely Low Social Responsibility
10	95	
1	83	

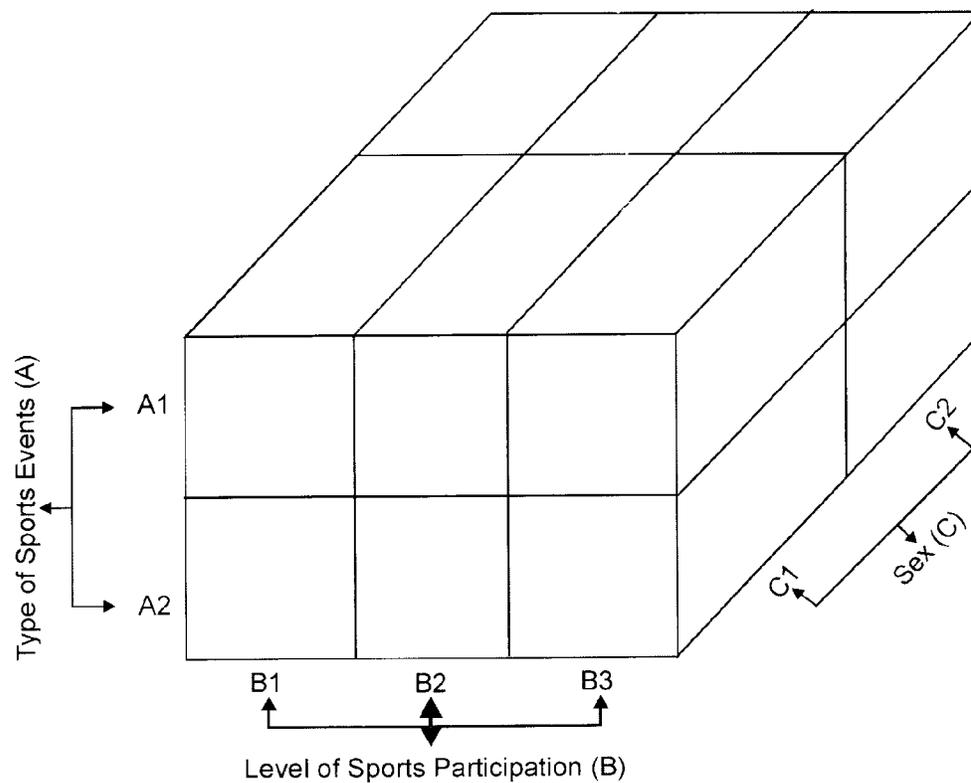
Data Collection:

After establishing good rapport, with players, a very cooperative and healthy environment was created in all the setting of the data collection. Coaches were requested to help in establishing good rapport. Two research tools, i.e., risk taking questionnaire, and social

responsibility scale were then distributed to the players assembled in small group of 10 to 12. Players were asked not to turn the first page of these research tools unless told to do so. First of all, players were asked to write their personal information and other necessary queries given on the cover page of the tool (See Appendix-A). Then the instructions were read verbally by the investigator and players were asked to follow the instructions. They were also encouraged to clear their doubt if any they had. After these preliminaries, they were asked to start. The researcher supervised the administration of test vigilantly. In all the administration it was especially seen that the players had answered for each item of the tool along with their complete bio data accordance with the specific instructions. After this all booklets were thoroughly checked for completion. These booklets were collected from each player and kept in envelop. At the end, each player was thanked for his/her cooperation. This procedure was followed in collecting the data from all 300 players.

Scoring: After administering the two tools on 300 sample of players the next step was to score it. Scoring procedure was adopted according to the procedure described in the earlier part of the present chapter. Thus, two set of scores (one for risk taking and another for social responsibility) were obtained for each individual player.

Figure 3.1: Schematic Representation of Independent Variables



1. Type of Sports Event

A1 = Individual Events

A2 = Team Events

2. Level of Sport Participation

B1 = Sub-Junior Level

B2 = Junior Level

B3 = Senior Level

3. Sex

C1 = Male

C2 = Female