Chapter-III

Methodology

Questionnaire research is one of the most important areas of measurement in applied sports psychology. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents. A "survey" can be anything from a short paper-and-pencil feedback to an intensive one-on-one in-depth interview. This study is qualitative in nature and uses a survey methodology. The chapter consists of selection of subjects, tools of the study, description of questionnaire, administration of questionnaire, and statistical techniques employed for testing of hypothesis.

Selection of Subjects

The sample consists of 91 hockey teams (N=1456) from four South Indian states. Among the teams, 57 were professional hockey clubs (N=912) and 34 south Indian university teams (N=544). Among them 112 club players (12.44%) and 64 university players (11.76%) were from Kerala state, 224 club players (24.88%) and 224 university players (41.17%) were from Tamilnadu, 384 club players (42.66%) and 144 university players (26.47%) were from the state of Karnataka and 192 club players (21.33%) and 112 University players (20.58%) were from Andhra Pradesh. All the subjects selected for the present study were male field hockey players. The professional club teams were selected from the major league tournaments of the concerned state and from the tournaments held at Kovilpatti, Sivaganga, Palayamkottai, Coorg and Anatapur and Tellichery. The University teams were selected from the South zone Inter University championship held at Annamali University (2008) and Bangalore University (2009).

Tools of the Study

Three instruments were used in this study, namely

a) Dispositional flow scale-2 (DFS-2) (Jackson and Eklund, 2004)

b) Flow state scale-2 (FSS-2) (Jackson and Eklund, 2004)
c) The Group environment Questionnaire (GEQ)

(Albert V. Carron, Lawrence R. Brawley, W. Neil Widmeyer, 2002)

Dispositional flow scale-2 (DFS-2)

The dispositional flow state scale (DFS-2) is designed as a dispositional assessment of flow experience. It assesses the general tendency to experience flow characteristics within a particular setting nominated by the respondent. The respondent is directed to think about the frequency with which he/she generally experience the flow items within a particular activity. DFS-2 contains 36 questions. The rating scale used for DFS-2 is a five point Likert scale, ranging from “1” (never) to “5” (always). While the DFS-2 is designed for grounding in a particular activity, it should be answered at a time separate from immediate involvement in this activity.

As a dispositional measure, DFS-2 is designed to elicit typical response, or how the person feels in general about his participation in a chosen activity. It is designed to assess individual differences in the tendency to experience flow in specific activities. There is no set time frames in which the respondent is asked to recall his or her experience; however, it is possible to assign a time frame by adding this to the instructions preceding the scale. The time frame most appropriate to specify for respondents when answering DFS-2 may depend on the particular characteristics of the sample (for example, their age, amount of time in the activity, frequency of participation and so on). The instructions given by the researcher for answering DFS-2 are as follows; “think about your experience in hockey over the past year, and answer the questions about how you have generally felt while participating. These questions relate to the thoughts and feelings you may have experienced during participation in hockey. You may experience these characteristics some of the time, all of the time, or none of the time. There are no right or wrong answers. Think about how often you experience each characteristic during your activity and circle the number best matches your experiences”
Flow state scale-2 (FSS-2)

Flow state scale-2 (FSS-2) is designed as a post-event assessment of flow with introductions worded to ground the respondent in the just completed activity. The rating scale for the FSS-2 is a 5-point Likert scale, ranging from “1” (strongly disagree) to “5” (strongly agree). That is, respondents are asked to indicate their extent of agreement with each of the flow descriptors in relation to the activity that she or he just completed. The FSS-2 should be administered as close as possible to the completion of the activity being assessed to promote clear recall. It is recommended that response to the FSS-2 be collected within one hour of completion of the activity, with the aim of gathering the data as close to the finish of an activity as possible, while minimizing intrusion on the participants. The research scholar instructed the respondents as follows:

“Please answer the following questions in relation to your experience in the event or activity just completed. The questions relate to thoughts and feelings you may have experienced while taking part. There is no right or wrong answers. Think about how you felt during the event or activity and answer the questions using the 5-point scale. For each question, circle the number that best matches your experience.”

Flow Scale Items

The items used in both versions of flow scales follow a similar structure but differ primarily in the tense used; specifically, the FSS-2 item use a past tense, whereas the DFS-2 item use a present tense. The scale differ in this way to fit with the context that each version of the scale assesses. Both the FSS-2 and DFS-2 contain 36 items. There are four items for each of nine dimensions of flow. Each dimension comprises a subscale of the total scale. Using items from the DFS-2, an example of each dimension is provided below:

Challenge skill balance: “I am challenged, but I believe my skills will allow me to meet the challenge.”

Action-Awareness merging: “I make the correct movements without thinking about trying to do so”.

Clear goals: “I know clearly what I want to do”.

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Challenge skill balance: “I am challenged, but I believe my skills will allow me to meet the challenge.”

Action-Awareness merging: “I make the correct movements without thinking about trying to do so”.

Clear goals: “I know clearly what I want to do”.
Unambiguous feed back: “It is really clear to me how my performance is going”.

Concentration on task at hand:” My attention is focus entirely on what I am doing.”

Sense of control:” I have a sense of control over what I am doing.”

Transformation of time:”The way time passes seems to be different from normal”.

Autotelic experience:”I really enjoy the experience.”

**Scoring of the Flow Scales**

There are four items for each of the nine flow dimensions represented in the flow scales. The nine dimensions are challenge-skill balance, merging of action and awareness, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self consciousness, transformation of time, autotelic experience. The item numbers are consistent across the FSS-2 and DFS-2, and are listed below according to the dimension upon which they load. The scoring procedure is simple. The item scores for each dimension are employed to obtain flow dimension scores. These dimension scores can be expressed either as a summarized score or as an item mean score. Item mean scores are typically easiest to interpret because the value can be evaluated against the anchor descriptors employed in the scale response format. A total scale score can also be obtained by adding (or averaging) the scores across all the dimensions.

**NOTE:** As the questionnaire is the copyright of the author, he has not given the consent to give the complete scoring system. Hence it has not been given in the present work.
The Group Environment Questionnaire

The Group Environment Questionnaire is designed to measure individual group member’s perception of team cohesiveness. Specifically, four measures of cohesiveness are assessed: individual attraction to group task; individual attraction to group social; group integration task and group integration social. Individual attraction to group task are a composite measure of individual team member’s feelings about their personal involvement with the group task, productivity, goals and objectives. Individual attraction to group-social is a composite measure of individual team member’s feelings about personal involvement, desire to be accepted, and social interaction with the group. The individual attractions to group scales have the individual assessment of his/her personal involvement with the group’s task and the group’s social aspects (“I don’t like the style of play on this team” and “some of my best friends are on this team”). Group integration task is a measure of the individual team member’s feelings about the similarity, closeness, and bonding within the team as whole around the group’s task. Group integration-social is a measure of the individual team member’s feeling about the similarity, closeness and bonding within the team as whole around the group as a social unit. The group integration scales have the individual assess the group as a whole in terms of its coherence around task and social activities (e.g., “our team is united in trying to reach its goals for performance” and “members of our team do not stick together outside of practices and games”). The questionnaire is made up of 18 items. 4 items in individual attraction to group task; 5 items in individual attraction to group social; 5 items in group integration task; and 4 items in group integration social. Team members are required to respond to the 18 statements about their team on a 9-point scale, which is anchored at two extremes by “strongly disagree” to “strongly agree”. The score on any specific scale is computed by obtaining the mean response for a subject from the pertinent items.

Scoring

For individual attraction to group task, item 2, 4, 6 and 8 are scored from strongly disagree = 9 to strongly agree = 1
For individual attraction to group –social, item 5 and 9 are scored from strongly disagree=1 to strongly agree =9. On the other hand item1, 3, and 7 are scored from strongly disagree=9 to strongly agree =1

For group integration task, item, 10, 12 and 16 are scored from strongly disagree=1 to strongly agree=9 on the other hand item 14 and 18 are scored from strongly disagree=9 to strongly agree=1

For group integration-social, item15 is scored from strongly disagree=1 to strongly agree=9. On the Other hand items11, 13, and 17 are scored from strongly disagree=9 to strongly agree=1

**Administration of Questionnaires**

The questionnaires on selected variables were administered to each subject separately. The research scholar after seeking the permission from concerned authorities met the subjects and explained clearly the purpose of the study along with how the questionnaires are to be answered. Each statement and method of answering was explained one by one. Besides, they were assured that the answers would be kept confidential and after ascertaining that the instructions were completely understood, they were asked to record the answers. The questionnaires such as FSS-2 were distributed to the subjects soon after the activity is over for answering. The collection of data was conducted in a period of 14 months from October 2008 to December 2009.

**Statistical Techniques Employed**

Descriptive statistics and Multivariate Analysis of Variance (MANOVA) were used to analysis the data of this study. Level of significance was set at 0.05 level.