CHAPTER THREE

METHODOLOGY
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Methodology is of paramount importance in any scientific inquiry as validity and the reliability of the facts primarily depend upon the system of investigation. Methodology is the study or theoretical analysis of working methods. The concept of methodology includes five aspects, namely research design, subjects, tools, procedure and data analysis. These five aspects of overall research methodology can be thought of as forming a case for the execution of the present study. The present investigation was explored to examine “spiritual intelligence in relation to achievement motivation and grit among students of professional and non-professional courses”.

Research Design

The important functions of research design depend mainly on the research objectives and questions or hypotheses. In the present research, investigator had applied the analysis of standard multiple regression and Pearson product moment coefficient of correlation to answer the research hypotheses set in chapter one. Hence, the present study is of correlational in nature.

Subjects

Sample is the portion of the entire population or universe of a certain kind of objects. It is essential that sample must possess almost all the qualities and characteristics of the population or universe selected for investigation. Moreover, the selection of the sample should be dependent upon the very objective of the research problem. Subjects for the present study comprised of 400 students. They were selected on the basis of purposive random sampling. Subjects were divided on the basis of professional and non-
professional courses. Out of 400 students, 200 students were drawn from professional courses of Aligarh Muslim University, Aligarh such as M.B.A, B.Tech, M.B.B.S and B.U.M.S and the remaining 200 students were drawn from non-professional courses such as B.A, B.Sc, B.Com and M.A, M.Sc, M.Com. There were 252 male and 148 female students. All subjects were selected from different faculties of Aligarh Muslim University, Aligarh U.P (INDIA).

**BREAK UP OF THE SUBJECTS**

Students
(400)

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Professional Course Students
(200)

- Male: 124
- Female: 76

Non-Professional Course Students
(200)

- Male: 128
- Female: 72
Tools

Psychological tests are used in researches to understand human behavior. Therefore, keeping in view the aims of the present study, the variables to be measured and the nature of sample, three scales namely Spiritual Intelligence, Achievement Motivation scale and Grit scale were selected.

Spiritual Intelligence Self-Report Inventory (SISRI)

The Spiritual Intelligence Self-Report Inventory (SISRI) of King and DeCicco (2008) was used to measure the level of spiritual intelligence among students of professional and non-professional courses. The Spiritual Intelligence Self-Report Inventory (SISRI) has four different dimensions such as Critical Existential Thinking (CET), Personal Meaning Production (PMP), Transcendental Awareness (TA) and Conscious State Expansion (CSE). The SISRI measures four levels of spiritual intelligence based on various mental characteristics, abilities, resources and ways of processing information. The responses were obtained on the 5-point rating scale: Not at all true of me, Not very true of me, somewhat true of me, Very true of me and completely true of me. The score ranges from 0 to 168. The reliability determined through internal consistency methods- Cronbach’s Alpha and Split-Half were found to be 0.95 and 0.94 respectively. Furthermore, the Cronbach’s Alpha for the present sample of research was found to be 0.91. The validity of the SISRI was determined by construct and criterion-related methods. Cronbach’s Alpha was found for CET (0.88), PMP (0.87), TA (0.89), and for CSE (0.96).
Achievement Motivation Scale

Initially, the investigator used the original scale of achievement motivation developed by Deo and Mohan (1985). The scale consisted of 50 items with 15 dimensions. There are four alternative response categories ranges from ‘Always’ to ‘Never’ and the score ranging from 4 to 0.

Development of scale: The original scale of achievement motivation was administered on 300 students. The principal component analysis was used for identifying factors of achievement motivation scale. In the sample, the eigen values of the first 10 factors derived from the 50 items were: 6.929, 3.091, 1.932, 1.612, 1.433, 1.310, 1.242, 1.139, 1.132, and 1.044. When the investigator rotated the factors to a varimax solution, every item had its primary loading on the factor defined by the other items of its scale and all primary loadings exceeded to.40. Finally 32 items were selected which represent 10 factors.

Each factor consisted of two or more items. The number of items representing the 10 factors are as: (1) meaningfulness of task (item numbers 2, 3, 26, 28), (11) individual concern (item numbers 35, 38, 39,40), (111) concern towards Excellence (item numbers 6,7,8,9,10,11), (1V) importance of marks and course of studies (item numbers 15, 23, 24), (V) Desire of competition in sports (item numbers 46, 48, 49), (VI) Intrinsic Motivation (item numbers 29,30,31), (V11) Dramatic and achievement Anxiety (item number 41,42,44), (V111) General Interest (item numbers 4,16), (1X) Feeling of insecurity (item numbers 36, 45) and (X) Lack of concentration (item numbers 17,25). The resulting ten factor scores were intercorrelated with each other in the students’ sample. Cronbach’s Alpha of Achievement Motivation Scale was found to be .830.
Grit Scale (GS)

Grit Scale (GD) developed by Duckworth, Peterson, Matthews and Kelly (2007), consisted of 12 items. Among the 12 items, Duckworth, Peterson, Matthews and Kelly considered the possibility that there were two factors which an artifact of positively and negatively scored items but were convinced that the factor structure reflected two conceptually distinct dimensions. The first factor contained 6 items indicating “Consistency of Interest” and the second factor contained 6 items indicating “Perseverance of Effort”. These two factors were correlated at r = .45. Items in both the factors are rated on a 5-point scale from 1 = not at all like me, (not at all gritty) to 5 = very much like me (extremely gritty). The resulting 12-item Grit Scale demonstrated high internal consistency (α = .85) for the overall scale and for each factor (Consistency of Interests, = .84; Perseverance of Effort, = .78). In the present study, the alpha values obtained for Consistency of Interest, Perseverance of Effort and Grit Scale as a composite trait were found to be .70, .59 and .68 respectively.

Personal Data Sheet

Personal data sheet includes information related to name, age, gender, course of the subjects, address and contacts nos. etc.

Procedure

First of all, the investigator obtained permission from the different Deans of the faculties and also chairmen of the concerned departments of Aligarh Muslim University, Aligarh U.P. (INDIA) for data collection from students of professional and non-professional courses. The investigator established rapport with the respondents and assured them their responses would be kept strictly confidential and would be utilized for
the research purposes only. The investigator also explained the purpose of the data
collection to the subjects. After establishing rapport with the respondents, all three scales
were administered to subjects in class room settings, homes or at their residential hostels
as per their convenience. The data were collected in small groups and some times
individually.

Data Analysis

The data were analyzed by means of certain statistical techniques such as
Standard multiple regression and Pearson product moment correlation coefficient.
Statistical packages for social sciences (SPSS, 16.0 version) was applied for the purpose.