CHAPTER 3

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The present study dealt with three different aspects of assessment in psychology i.e., achievement motivation, locus of control and altruism. The intent of the author is to study the effect of achievement motivation and locus of control on altruistic behaviour on the one hand and of social reinforcement on altruistic behaviour on the other hand. Before administering the tests, the first step is to decide about the sample from which information regarding achievement motivation, locus of control, altruistic behaviour of the children will be gathered. Thus, in the present chapter, we will describe the Sample, Instruments of the study and Experimental Design with reference to the Procedure.

1. THE SAMPLE

Initially, a large sample of 2200 students ageing 16 years and studying in 10th class were selected randomly from school going population of Rajnandgaon city. For the purpose first by a list of all the schools of Rajnandgaon was prepared and five schools were selected randomly, and then 2200 male students of 10th class were selected randomly care was taken to exclude those who were not of 16 years. All these students were administered achievement motive test. On the basis of scores on the test i.e., above 23 and below 14, 330 high and 330 low achievement motivation students were selected respectively. All these high and low achievement motivation students were again administered a locus of control scale, 82 internals and 82 externals were selected on the basis of computing \( Q_1 \) and \( Q_3 \) on the test scores. Students scoring below \( Q_1 \) were considered as internals and those scoring above \( Q_3 \) were considered as externals. Finally, 60 subjects were selected randomly for each of sub-groups i.e., internals with high achievement motivation, internals with low achievement...
motivation, externals with high achievement motivation and externals with low achievement motivation. In this way, a total of 240 subjects were selected as the final sample (Table-6) on the basis of stratified random sampling technique.

TABLE # 6: Sub-Groupings Of The Final Sample

<table>
<thead>
<tr>
<th>Personality Group</th>
<th>High Achievement Motivation</th>
<th>Low Achievement Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Locus Of Control</td>
<td>N=60</td>
<td>N=60</td>
</tr>
<tr>
<td>External Locus Of Control</td>
<td>N=60</td>
<td>N=60</td>
</tr>
</tbody>
</table>

2. INSTRUMENTS OF THE STUDY

As has already been said earlier, the present research deals with three different aspects of assessment: achievement motivation, locus of control and altruistic behaviour. The instruments used for this purpose are described below in some details.

(i) Measurement Of Achievement Motivation

The Achievement Motive Test (Appendix A) constructed and standardized by Bhargava (1984) was used to measure the N. Ach. (Need Achievement) score of the person (Appendix B). The test consists of 50 items of incomplete sentences (Stems) which are to be completed by the subjects by putting a check mark on any one of the three alternative responses given against each item which indicates his true feelings with respect to the point asked through a particular item. It is expected and believed that the subject while engaged in the process of checking the item would consider all the aspects which may be rounded about him at that item. Thus, his check on the alternative responses (which he chooses so) would indicate his true feelings. In this way, all the items are to be checked indicating his responses on the whole test.
Scoring can be done with the help of a scoring key. Each item indicating Achievement Motivation (N. Ach.) is given a score of 1 and the total score earned on all the items is the N. Ach. score. The classification on the basis of score is detailed in Table 7.

Table 7: Classification On The Basis Of N. Ach. Score.

<table>
<thead>
<tr>
<th>Category</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>23rd and Above</td>
<td>23rd and Above</td>
</tr>
<tr>
<td>Above Average</td>
<td>19-22</td>
<td>20-22</td>
</tr>
<tr>
<td>Average</td>
<td>17-18</td>
<td>17-19</td>
</tr>
<tr>
<td>Below Average</td>
<td>15-16</td>
<td>14-16</td>
</tr>
<tr>
<td>Low</td>
<td>11-14</td>
<td>11-13</td>
</tr>
</tbody>
</table>

(ii) Measurement Of Locus Of Control

Helode (1985) has presented a Hindi Version of Pandey's (1979) 20 items Indian adaptation of Rotter's (1966) IECR Scale which meant to evaluate belief regarding internal versus external control of reinforcement (Appendix A). It consists of 20 paired statements, one item in each pair is keyed for internal control and the other for external control. The split half reliability co-efficient of this Hindi IECR with S-B correction is 0.80. The test is fairly valid as the distribution of the internality scores of the bank employees studied by Shukla and Helode (1986) yielded a normal distribution. One mark is given to each statement containing external orientation. Thus, higher scores on the scale indicate externality of control.
(iii) Measurement Of Altruism

(a) By Altruism Scale

Important factor of the present research is the study of altruism. Altruism has been taken into consideration as the dependent variables in the present research. The Altruism Scale (Appendix A) constructed and standardized by Rai and Singh (1988) was used for measuring altruism in the subjects. The altruistic scale has been prepared in Hindi language with 30 items. Each item has three alternative responses say altruistic, neutral, and egoistic. This scale has been found to be highly reliable ($r=0.84$) and valid ($r=0.63$).

They responses obtained in the form of tick mark (✓) on 30 items of altruistic scale are quantified. A score of 'two' for altruistic, 'one' for neutral, and zero for egoistic is awarded to each item of the scale. The maximum score is 60 and the minimum is zero.

(b) In Experimental Situation

Few studies have investigated the development of prosocial behaviour in children, moreover, most of the developmental studies have investigated only altruistic behaviour, disregarding reciprocating and compensatory behaviour. The altruistic studies have focused mainly on two types of behaviours: rescue responses (e.g., Staub, 1970, 1971) and donation or sharing responses (e.g., Brayan, 1971; Gruse & Skubiski, 1970). In the first type of experiment, the child is exposed to an emergency situation in which somebody is in some sort of distress. In the second type of experiment, the child is provided an opportunity to sacrifice some prized object.

In the present investigation, two different coloured pearls are selected to study the altruistic behaviour of the subjects. The subject has to sort out pearls of one colour only from the mixture of the two. This he has to do with another student of his class and after completing the task, subject is given three chocolates in the absence of another student, and is asked to share with him. On the basis of number of chocolates shared by the subject with another student,
he is scored for his prosocial behaviour. An altruistic behaviour checklist (Appendix A) is prepared to study the sharing behaviour. A maximum score of 4 is assigned if the subject gives all the three chocolates to another student. A score of 3 is assigned if he given two chocolates to another student and keeps one for himself a score of 2 is assigned if he gives one chocolate to another student and returns one to the experimenter, keeping one for himself, a score of 1 is assigned if the subject gives one chocolate to another student and keeps two for himself, and he is assigned a minimum score of '0' if he does not give any chocolate to another co-participant keeping all the three for himself only.

3. EXPERIMENTAL DESIGN OF THE STUDY

A $2 \times 2 \times 3$ factorial design would be used to study the effect of achievement motivation (high and low), locus of control (internal and external) and social reinforcement (social non-reinforcement, social hindrance and social reinforcement) on altruistic behaviour of the subjects.

An outline of the plan is given in Table 8. The main features of this may be summarized as follows:

**TABLE # 8 : An Outline Of The Design Of The Present Study.**

<table>
<thead>
<tr>
<th>Condition</th>
<th>High Achievement Motivation</th>
<th>Low Achievement Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal Locus Of Control</td>
<td>External Locus Of Control</td>
</tr>
<tr>
<td>Control (Social Non-Reinforcement)</td>
<td>*N=20</td>
<td></td>
</tr>
<tr>
<td>Experimental-I (Social Hindrance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental-II (Social Reinforcement)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* There would be 20 subjects in each cell.

A total of 240 subjects would be drawn equally from 4 sub-groups based on achievement motivation and locus of control i.e., internals with high achievement motivation and internals with low achievement motivation, externals
with high achievement motivation and externals with low achievement motivation. One third of these 80 subjects in each sub-group would serve in either of the three conditions i.e., control (social non-reinforcement), experimental-I (social hindrance) and experimental-II (social reinforcement). More specifically, 20 subjects would be studied for their altruistic behaviour in each cell of 2 x 2 x 3 (total 12 cells) factorial design.

4. PROCEDURE

Data were collected in four steps. In the first step, an achievement motive test was administered on all randomly selected 2200 10th class students ageing 16 years. On the basis of test scores i.e., above 23 and below 14, 330 high and 330 low achievement motivation students were selected, respectively. Secondly all these high and low achievement motivation students were again administered locus of control scale. On the basis of Q₁ and Q₃, 82 internals (below Q₁) and 82 externals (above Q₃) were selected from each of the two achievement motivation groups. Finally, 60 subjects from each of the four sub-groups, i.e., internals with high achievement motivation, internals with low achievement motivation, externals with high achievement motivation and externals with low achievement motivation were randomly selected. In this way the final sample comprised of total 240 subjects selected on the basis of stratified random sampling technique.

In the third and fourth steps altruistic behaviour was determined for each of finally selected subjects. Initially one third of 60 subjects in each subgroups were further randomly assigned to either of three condition-
(1) Control (social non-reinforcement), (2) Experimental-I (social hindrance), and (3) Experimental-II (social reinforcement).

The subjects of control group (non-reinforcement condition) were firstly administered altruism scale and then they were tested for their altruistic behaviour in experimental situation wherein each of the subject worked jointly
with another co-participant of his class on a 'pearl sorting task'. After completing the task, the co-participant was asked to go in another room. After the departure of the co-participant, the subject was appreciated for his performance on the task and was rewarded with three chocolates. He was also asked to go to his class room after sharing the reward with his co-participant sitting in another room. Observing that the subject had left the room wherein the co-participant was sitting alone, the co-participant was called in the experimental room and was asked the number of chocolates he had received from the subject. On the basis of this, altruism scores were assigned to the subject as has already been detailed earlier.

The subjects of experimental condition-I (Social Hindrance condition) were firstly taught a story (Appendix A) wherein the altruistic act of one character was punished and then the subjects were tested for their altruism by altruism scale. And after completing the test they were individually tested in experimental situation for their altruistic behaviour.

The subjects of experimental condition-II (Social Reinforcement) were firstly taught a story (Appendix A) wherein the altruistic act of the character was reinforced and then their altruistic behaviour was determined in testing and experimental situation as detailed earlier in this chapter.

In this way data were collected for the present research.