CHAPTER III

RESEARCH METHODOLOGY

(A) The Problem
(B) The Hypotheses
(C) The Variables
(D) Sample and Sampling
(E) The Tools - Inventories and Tests
(F) The Procedure and the Design
RESEARCH-METHODOLOGY

Research is a systematized effort to gain new knowledge. Research methodology is the plan, structure and strategy of investigation to obtain answers to research questions and to control variances. According to C. C. CROFORD (1965) "The research is simply a systematic and refined technique of thinking, employing specialised tools, instruments and procedures in order to obtain a more adequate solution of a problem."

The description of the study - design of the present research and the method of data collection are as follows -

(A) THE PROBLEM

The problem is an interrogative sentence or statement that asks what relations exists between two or more variables, (KEELINGER, 1960). Thus the problem may be defined either as a circumstance of which we have no complete knowledge or as a question which has no single answer. Therefore, a problem is a question proposed for solution. Thus, it is clear that the problem is a basic important step of research. It would not be any exaggeration if it was said that the problem is the foundation of research.

(A4) THE RESEARCH PROBLEM

This research problem is concerned with the comparison
of aggressive behaviour of two groups of children - deprived and non-deprived of parents. Thus, the research problem can be stated as follows:

"TO STUDY THE EFFECTS OF DEPRIVATION (PHYSICAL) OF PARENTS ON THE AGGRESSIVE BEHAVIOUR OF CHILDREN." The main question arising out of the above statement is "DOES THE PHYSICAL DEPRIVATION OF PARENTS MAKE CHILDREN MORE AGGRESSIVE THAN THE AVERAGE?"

(A44) THE SIGNIFICANCE OF THE PROBLEM

This problem has originally been derived from "SANFORD & MURRAY (1954)"a topic "THE RELATIONSHIP BETWEEN OVERT AND FANTASY AGGRESSION IN LOWER AND MIDDLE CLASS CULTURE." In their topic, they have emphasized that certain social/antisocial behaviours, such as aggression, may not appear externally because cultural prohibition or internal conflicts prevent the overt gratification of these needs and increases their intensity in the individual's fantasies.

SANFORD and MURRAY's subjects were children of 9 to 15 years of age, belonging to the middle and the lower socio-economic status because they assumed that the middle class is the stratum in which strong fear of punishment against overt
aggressive behaviour exists, eventually giving way to more fantasies. While, in the lower class cultures, aggressive behaviour is not punished but is rather encouraged, therefore, they express an intense "overt-aggression" and have a less "fantasy-aggression".

This research problem differs from Sanford and Murray in a few aspects. In the present investigation, the subjects are of 6 to 10 + years of age. A new correlate has also been added in the form of "PHYSICAL DEPRIVATION OF THE PARENTS". For comparison purpose, two controlled groups - "Deprived of one parent" and "Non-deprived of parents" were also included. The format used by Sanford and Murray is different from that of the present investigation in the sense that they tried to correlate delinquent behaviours with aggressive trait of the children while no such effort has been made in the present research.

The investigator has just to find out how far "Physical deprivation of parents" (an indicator of the absence of parental love) can make children aggressive overtly or covertly? Thus, the plan is somewhat tilted towards the "Dollard Miller" hypothesis of the "Frustration - Aggression Model".
Thus, eventhough, this research has been based on the study of SANFORD and MURRAY, it is different in many respects. It may contribute something new to the world for those unfortunate children who lose their parents in their very childhood.

(B) - THE HYPOTHESES

An hypothesis has been defined as the tentative solution to the problem. It is an explanation that needs to be established before it can be accepted and the process of investigation is directed towards testing the hypothesis. Its defined purpose is to indicate the direction of the investigation and to suggest what facts are to be collected. It is likely to be modified if the facts discovered in the course of the inquiry demand so. Thus the research is a mediating process between the hypothesis formation and its testing. A representative definition of an hypothesis can be that of GOOD, G.V. and STATES, D.E. (1954). They defined that the hypothesis is a shrewd guess or inference that is formulated and previously adopted to explain observed facts or conditions and to guide further investigation. Thus, it is testable statement of the relationship between two or more variables.

The present study is based on the assumption that there is a difference between the behaviors of non-deprived and deprived children. To verify it, these hypotheses have been formulated.
HYPOTHESES

(A) - PRIMARY HYPOTHESES

1. "AGGRESSIVE BEHAVIOUR" of children --"deprived" and "non-deprived" of parents differ significantly.

2. The "deprived" and the "non-deprived" groups are dissimilar on the "TYPES OF AGGRESSION."

3. There is no difference in "FEAR OF PUNISHMENT" between "deprived" and "non-deprived" of parents groups.

4. Aggression of "deprived" and "non-deprived" groups differ in "DIRECTION."

5. There is a significant difference in "TYPES OF REACTIONS" between boys of "deprived" and "non-deprived" groups.

6. There is no "SPECIFIC TREND OF AGGRESSIVE BEHAVIOUR, magnitude in accordance to the "EXTENT OF DEPRIVATION."

(B) - SECONDARY HYPOTHESES

7. There is inverse relationship between "OVERT" and "COVERT" aggression.

8. "FEAR OF PUNISHMENT" and "AGGRESSION" are highly correlated.

9. "FEAR OF PUNISHMENT" and "DIRECTION OF AGGRESSION" are relevantly correlated.

10. "FEAR OF PUNISHMENT" and "TYPES OF REACTIONS" do not have any relationship.

11. "TYPES OF AGGRESSION" and "DIRECTION OF AGGRESSION" have no relationship.

12. There exists an important correlation between "TYPES OF AGGRESSION" and "TYPES OF REACTIONS."

13. "DIRECTIONS OF AGGRESSION" and "TYPES OF REACTIONS" have a significant relationship.

14. An interactional effect of "FEAR OF PUNISHMENT", "DIRECTION OF AGGRESSION" and "TYPES OF REACTIONS" exists on "AGGRESSIVE BEHAVIOUR".
(c) THE VARIABLES

The variables are the fundamentals of a research. A variable is a property that takes on different values. B.R. BROOKS (1959) has stated that, "A variable is any feature or aspect of an event, function or process that by its presence and nature affects some other event or process, which is being studied." In Psychology, any concept can be treated as a variable. Variables can be manipulated actively or naturally in a continuous or a discrete fashion and dichotomically or serially.

The proposed problem has been based on these important variables - "The DEPRIVATION OF PARENTS" has been treated as the independent variable and the "AGGRESSIVE BEHAVIOUR OF CHILDREN" has been treated as "dependent variable". There are few other relevant variables such as sex, age, range of academic level, range of socio-economic status and the level of the educational institutions which have been used as "constant variable" in the present research.

All the above mentioned variables need further elaboration.

(04) PHYSICAL DEPRIVATION OF THE PARENTS

As already defined in Chapter II, "The Physical deprivation of parents means the absence of both parents due to death, divorce or long period separation." This variable is manipulated by
selecting two major groups of children – deprived and non-deprived. The deprived children have been taken from the orphanages, just to avoid confounding sampling errors. The children deprived of both the parents but living in a family, might have some substitute parental figure mitigating the deprivation effects. This was the rationale for focusing attention only on orphanages for the selection of deprived children. The fact is further confirmed by a continuous visit to the orphanage and close observation by the investigator to remove all the doubts of the supervisor’s acting as a substitute parent.

Another situation to be confirmed was whether these children of orphanages themselves have a feeling that they do not have the parents or parental love in their life. This is confirmed to a great degree by selecting the maximum control units of the groups – (non-deprived and deprived of one parent) from the same schools where children from the orphanages also go for their studies and always undergo such experiences where they find themselves belonging to a different group which does not have that tender relationship of the parents and the children which their counterparts possess.

From the orphanages, only those children have included in the study who have been living in the orphanage, since birth. Their parents are either dead or if living, have never come to visit
their child. The investigator has a feeling that these are these disadvantaged and unfortunate children who gradually and suddenly too, realize the missing relationship of affection, love and security in their life.

(C11) AGGRESSION

In the present investigation, the variable of aggression has been taken in the sense of SEVERY and BRINKHAM (1950) definition "Aggression is an action committed with intention to inflict injury or harm to another person or persons".

Aggression may be of two types - "COVERT" and "OVERT". The covert aggression, measurable through children - apperception-test (CAT) is observed in a fantasy form. Overt aggression, another type of aggression, is a manifested form which has been judged by peer-rating and other tools in the present investigation. It is a correlational variable with which the effect of "deprivation of parents" have been studied in the present research.

(C11I) SEXUAL - DIFFERENCES

Sexual differences play an important role in the expression of aggression. Only boys have been selected in this research because boys are more active and exploring. The reason for this trend is that the parents expect that kind of behaviour from their
sons and tend to reinforce aggressive behaviour and ignore passive or cooperative behaviour (MITCHELL and BRANT, 1970). This variable is used as a controlled variable.

(CIV) AGE

Age is relevantly correlated with the expression of their aggression. In fact, it is a developmental process of emotion. The children's behaviour is affected by family atmosphere, effects of rearing, socialization etc. Thus it may differ at different ages. The investigator found through her pilot work that the depiction of aggression is interestingly different at childhood in comparison to other stages. Only the children of age range 8 to 10 + years are included in the study. This is also a controlled variable in the present study.

(CV) RANGE OF SOCIO-ECONOMIC STATUS

According to the dictionary (edited by A.M. MCDONALD), the socio-economic status means "the financial capacities and the status of the society of a person." Though, SANFORD and MURRAY's sample belonged the lower and middle SES but, because of low social and economical condition of the orphanages, from where parentally deprived children have been taken in the study, only those orphan children belonging to the lower middle and the lower socio-economic status could be included in this investigation.
C(vi) RANGE OF ACADEMIC LEVEL

The children from third to seventh (3rd to 7th grade) have been included in this study. It has been found in the pilot work by the investigator that children of the orphanage are sent to the institution at a higher age in comparison to children belonging to other socio-economic status. The same is applicable to the children of the lower socio-economic status. Therefore the academic level of children, selected for the study are only upto the 7th grade.

C(vi1) THE LEVEL OF EDUCATIONAL - INSTITUTIONS

Both deprived and non-deprived children have been selected from the same level of educational institutions. For its purpose, the non-deprived children have been taken from the same and similar institutions where the deprived children got their education and where the educational facilities, given to the children, were the same as in the lower and lower-middle socio-economic status, (as far as the expenditure per child and facilities provided, is concerned). These institutions were slightly lower than average and Public Schools (This means that these are "C" grade institutions which are lower than the "A" and "B" grade institutions). These institutions are run by the Nagarpalika and the District Board in which sufficient facilities are not provided to the children.
All the variables can be summarized as follows:

Table No. 1
The Table Illustrating the Nature of the Variables

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Variables</th>
<th>Range</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deprivation of the parents</td>
<td>Treated as the independent variable manipulated by selection/antecedent conditions.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Aggression</td>
<td>Treated as the dependent variable.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sex-differences</td>
<td>Only boys</td>
<td>Treated as a controlled variable.</td>
</tr>
<tr>
<td>4</td>
<td>Age</td>
<td>8 to 10 + years</td>
<td>Treated as a controlled variable.</td>
</tr>
<tr>
<td>5</td>
<td>The range of academic level</td>
<td>3rd to 7th grade</td>
<td>-do-</td>
</tr>
<tr>
<td>6</td>
<td>The range of SES</td>
<td>Lower middle/lower</td>
<td>-do-</td>
</tr>
<tr>
<td>7</td>
<td>The level of educational institutions</td>
<td>&quot;C&quot; grade institutions</td>
<td>-do-</td>
</tr>
</tbody>
</table>

(D) SAMPLING AND SAMPLING

A sample as the name implies, is a smaller representation.
of a larger whole. The sampling method is the process of drawing a definite number of individuals, cases or observations from a particular "whole".

The total sample of the present study consists of 55 children who are deprived of both the parents (D) and who are selected from orphanages and 55 non-deprived children (ND) who live with their parents in families. One more controlled group of 55 children - deprived of one parent only (D) has also been included in the sample of present research by which the effect trend of deprivation can be studied on the aggressive behaviour.

The mixed technique of sampling has been used in this study. The "Random Selection Technique" was used for selecting the non-deprived children. The children - deprived of one or both the parents, could be selected purposely on account of nonavailability of a bigger number of such children.

The total data has been gathered from three cities - one being a Metropolis, the other a big town and the third a small one. The investigator found out the approximate total population of the above mentioned three towns (refer table No.2).
Table No. 2

The Table Shows Selected Numbers of Sample From the Population

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Population No. taken from</th>
<th>Groups According to controlled variables, the approximate populations</th>
<th>Selection of units in 1st Phase</th>
<th>Selection of the Units finally after deletion and after drop out</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Metropolitan</td>
<td>M 195</td>
<td>65</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D 225</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>Big town</td>
<td>M 124</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D 175</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>(3)</td>
<td>Small town</td>
<td>M 72</td>
<td>45</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D 134</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Total numbers in final sample</td>
<td>ND 1,871</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M 79</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D 534</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>ND 30,622</td>
<td>145</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M 391</td>
<td>115</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D 534</td>
<td>102</td>
<td>55</td>
</tr>
</tbody>
</table>

KANPUR UNIVERSITY
Then, the steps utilized for finally selecting 55 subjects in each of the three groups are as mentioned below:

(i) Only those children were selected in the group "M" who were living in orphanages from the very beginning of their lives and were unable to recall anything about their parents. The final selection of the 55 children out of the 115 - deprived of both parents were taken purposely in the group "M". These subjects were the ones which fulfilled the required conditions of age, sex, academic level and institution - level.

(ii) Though, it was evident and confirmed, so by the reports, (taken from the managers as well as from the children) that this deprived group belonged to lower middle SES. Still, to make it more reliable, a socio-economic status scale by KUPPUSAM (from "A") was administered to the person-in-charge of each orphanage mentioned earlier and the scores obtained so, confirmed the fact reported by the manager of orphanage.

(iii) For equating the children of other two controlled-groups, with the "deprived of both the parents" ("M") group, it was kept in mind that these children were selected from either the same or
from equal status institutions judged so by the educational authorities of the Nagarpalika and Basic District Board. To maintain the validity and reliability of the status of these institutions, the investigator obtained the answers to the five questions from three authorities of the B.E.A. (Basic Education Administration) staff. These questions were - (a) what is the standard of education this institution? (b) what facilities are provided? (c) what is the economic status of the children? (d) how is the result? (e) what is the reputation of the School? Thus, finally only those institutions were included which belonged to the "C" category.

(iv) Thus, in the first stage of selection of the units in "Non-deprived" (ND) group and "deprived of one parent" (D) is as follows:

(a) No. of children in group "ND" (non-deprived of the parent) = 145

(b) No. of children in group "D" (deprived of one parent) = 102

(v) Then, in the second stage, KUPPUSAHK's socio-economic status scale was administered to the children of "non-deprived" and "deprived of one parent". Only those children, belonging the lower-
middle and lower SES, were included in the control groups - "ND" and "D". This left the investigator with:

(a) No. of children in group "ND" = 112
(b) No. of children in group "D" = 95.

(vi) These children of controlled groups, studying in the same grade, may have a slight variation in age. Therefore, the investigator had to do some sorting out of this variable. The number in the groups remained as follows:

(a) No. of children in group "ND" = 96
(b) No. of children in group "D" = 75.

Out of these numbers, the needed units (55 in each group) were selected finally in the "ND" and "D" control groups and all the cases, unsuitable for the study or exceeding the adequate number for the design, were deleted.

(B) THE TOOLS—INVENTORIES AND TESTS WHICH HAVE BEEN USED IN THE RESEARCH

Tools are a very important means for research.

J.H. POINCARE (1949) explained, "attitude is built with facts. A house is built with stones, such as, the collection of facts depend upon the valid tools". Thus, reliable tools should be
used for collecting the data. The decision in selecting the tools or techniques for the collection of data depends upon the problem and the variables, to be used in the particular research.

The following tools and inventories were used in the present study which have been described in the same sequence as the variables.

B(i) THE INVENTORIES AND TOOLS WHICH MEASURED THE "AGGRESSION" IN THE PRESENT RESEARCH

Two types of expression of aggression are measured by tools and inventories in this study to overt or manifest expression of aggression and the covert or fantasy expression of aggression. Different tools have been used for both the purposes. The description of these categories of tools are given below.

B(i.1) THE TOOLS TO MEASURE THE OVERT AGGRESSION

Two questionnaires and one rating scale have been used for this purpose. The first questionnaire, the DAILY BEHAVIOUR REPORT (DBR) is to be filled up by the teachers, the second named the GUESS "WHO" TOOL (GWT) was to be filled by the children themselves and the third, the WEEKLY RATING
SCALE (WES) was to be used by the guardians of the children. These inventories have been framed on the basis of SANFORD and MURRAY's inventories. The details and description of these inventories are as follows.

(1.1)(a) DAILY BEHAVIOUR REPORT (DBR)

This report shows aggressive state of children in a particular situation. This measure of aggressive behaviour consist of a check list of 12 kinds of aggressive behaviour. Though, in the present research, the items of this list have been translated into Hindi, in a proper and exact sense so that it was easier for the teachers to understand it. These items of aggressive behaviour are physical attack, bragging, threatening, teasing, impertinence, insulting, ridiculing, bullying, verbal, castigation, malicious-gossip, destructiveness, and temper-tantrum.

To maintain the validity and reliability of DBR's items, 76 aggressive items were judged by three senior teachers who selected finally 12 items which show aggression the most and thus, 24 items were deleted and 12 items were taken for the DBR inventory. Each and every item was defined clearly to the teacher concerned as follows:

1. Physical attack
2. Bragging
3. Threatening

- The bodily attack.
- To use a beastful language.
- To be menace or source of danger.
4 - Teasing
- The act of teasing, state of being teased.

5 - Impertinence
- A saucy remark

6 - Insulting
- Tending to give or cause insult characterized by rudeness.

7 - Ridiculing
- Making fun of somebody

8 - Bullying
- Quarrelsome, a blustering

9 - Verbal castigation
- Verbal criticized severely

10 - Malicious-Gossip
- Speaking badly behind the person back

11 - Destructiveness
- Tending to destroy

12 - Tantrum
- A violent demonstration of rage or a sudden burst.

The investigator selected those teachers who have more contact with those children who have been selected for this study. The teacher filled out one of these reports each day for each of the subject under her care, checking the appropriate space if that type of behaviour occurred that day. In the same way, she filled out the responses throughout the seven days.

In order to get the aggressiveness from DBR, the total number of reported incidents of aggressive behaviour for
each child in seven days was divided by the total number of aggressive acts. This ratio of D.E.R. scores may be regarded as the proportion of aggression. Besides the degree of aggression have been measured by the ranges of scores, because aggressive behavior is a continuum so the investigator divided the attributes into three categories. The D.E.R. inventory has a minimum score of 12 and maximum score of 84. A score of 21 to 45 shows less aggression, 49 to 66 shows more aggression and 67 to 84 shows the most aggression. Thus the aggressiveness scores of all children have been derived by the D.E.R inventory.

E2.1)(b) GUESS- "WHO" TOOL (G4Z)

This is a socio-metric tool in which the peer responses of each child have been taken. According to KELLOGG (1956) "Socio-metry is a broad term indicating a number of methods of gathering and analysing data on the choice, communication and interaction patterns of people in groups." Thus, in this technique, the choice of every child for other children has been judged.

This inventory consisted of 12 items of aggressive behavior in the form of statements in which six were aggressive and six were non-aggressive statements. First, already those children who were selected and included in the research sample, have been divided by the investigator into groups on the basis of
familiar and fair selection. The minimum number of the group was 10 in and the maximum number of the group was 20 so as to ensure every child could judge adequately the behaviour of other children. Then, this inventory was administered to each child with the instruction that they write down the names of those children from among their group, whose behaviour applied to the given statement in the inventory.

For the scoring of the GWF inventory, a sociometric table of all the groups of children for each institution was made, then the total choice for a particular item of behaviour, each child to another has been counted. These total scores are the "GWF" scores for the particular child. To put the children in a particular range of aggressive continued, the investigator made a scale of 12 points. The frequency of choice of all the children ranged from 1 to 12 in which a score of 1 to 3 shows no aggression, a score of 4 to 6 shows less aggression, 7 to 9 shows more aggression and the range which shows the most aggression is 10 to 12.

To maintain the validity of GWF inventory's items, the investigator originally included 30 statements in which 15 were indicators of non-aggressive behaviour and the rest of the 15 were the indicators of aggressive behaviour. Five teachers judged these statements for their validity. Only those "12" items were selected for the GWF inventory in which these teachers reported aggressiveness. The other statements were deleted.
E(2.1)(c) WEEKLY RATING SCALE (WRS)

The third measure of overt expression of aggression that is the WRS has been framed on the basis of SANFORD's pattern. This consists of a 5 points scale involving different types of attributes which are non-cooperative, cooperative, quarrelsome, amiable, aggressiveness, submissiveness, rebellious docile and antagonistic, friendly. These attributes measure the aggressive traits in various aspects. To remove the cultural differences in this inventory, the investigator gave these items to three psychologists to judge its adaptation according to the Indian culture.

To prevent the biasness or monotony of responses, the investigator has three behaviours - items in the 1 to 5 rating scale and the two items in 5 to 1 rating scale putting a favourable behaviour on one extreme and the opposite behaviour on the other extreme.

The scale which was designed as an over-all measure of aggressive behaviour were completed by the guardians of the non-deprived children and by the managers of the orphanages. They filled it after a week of observing of the behaviour of the child. Thus, they gave the assessment of the behaviours of the children accurately on this five - item inventory.
Since, each of the five aggressive - items was divided into five equal units so they were scored accordingly to the ratings of the guardians. Thus, the WBS scores for each child was the sum of the scores for the five items. In this inventory a score of 5 represents the minimum degree of aggressiveness. The various degrees of aggressiveness have been judged by the ranges of WBS scores in which a range of 11 - 15 shows less degree of aggressiveness, a score of 16 - 20 represents a larger degree of aggressiveness and a score of 21 - 25 shows the highest degree of aggression. Thus, after finding the WBS scores of any child, it is easier to know the specific degree of the aggressiveness that the child possesses.

Thus, the overt expression of aggression was measured by these three inventories. The investigator calculated the sums of each inventory separately and then, derived the "means", "SD" and "significance difference" from the scores. After that she added the scores of all the three inventories to get the total overt aggressiveness scores.

B(2.2) THE TOOL TO MEASURE THE COVERT AGGRESSION AND YEAR OF PUNISHMENT

The children perception test (CAT) of "LEOPOLD BELLAK and BELLAK (1973) (the Indian modification done by UMA CHAUDHARY has been used for this purpose in the present study. This is a projective technique of personality assessment. SANFORD and MURRAY used CAT for their subjects while the present investigator
found CAT more appropriate for her sample on the following bases -

(i) CAT can be administered on children of age group 3 to 10+ years.

(ii) The items of the cards of CAT are more attractive for children of this age. The CAT cards consist of scenes of animals engrossed in various activities such as fighting, eating, sleeping etc.

(iii) Animals play a prominent role in children's fantasies and phobias.

The CAT contains 10 cards. The investigator tried to select only those cards which were deemed appropriate for the expression of aggression. Thus, in the first stage, she selected seven cards (which were numbered C2, C3, C4, C6, C7, C8 and C10) as being more suitable for this purpose on the basis of screen pilot work done only on 20 children of the age range 8 to 10+ years. The results indicated even deeper screen of the cards. Therefore, these cards were given to three teachers for sorting out the more suitable ones for this purpose. Finally, only 5 cards numbered C2, C3, C7, C8 and C10 could be selected for administration.
Before the administration of this test, a good rapport was established with the children. The CAT was presented as a game to them and they were individually given standardized instructions for the test. I am going to play a game with you in which you shall tell me a story about these pictures and accordingly you should describe what is going on. What are the animals doing now? What happened before and what will happen later? Why have some of the animals or figures been given a certain name or age? Why has a certain place been given the particular name or even about the outcome of the story?

Then, the pictures were given to the children serially and they were told to describe a story on the theme. Their descriptions were taped. The children were encouraged to complete the story particularly on the points where they hesitated. In such a way, the investigator collected the stories from all children included in the study.

For the interpretation of the CAT stories, a short form of the CAT blank was filled for every child. Thus, each story was scrutinized with the help of 3 out of 10 major categories, listed in CAT blank because only these categories are related with an assessment of the fantasy aggression and fear of punishment. These three categories are as follows -

1. Significant conflicts;
2. Nature of anxieties;
Thus, the fantasy aggression scores (F) and fear of punishment aggression scores (FP) were derived by the CAT stories of 55 boys of all the three groups. The method of scoring the fantasy aggression (F) was to count the frequency of reporting aggressive acts of the characters shown in the card. The following acts of aggression were considered as an indirect expression of hostility: getting angry, hating, cursing, criticizing, blaming, breaking and smashing objects, escaping, running away, rejecting somebody etc.

The method of scoring a child's fear of punishment was to calculate the number of times the heroes of the stories were subjected to punishment: press, threat, deprivation of some sort force, dominance, restraint, temptation, rejection, scorn, suicide, self-depreciation towards the hero. The total number of scores (FP) depended upon the frequencies and intensities of the punishment responses.

Thus, the covert expression of aggression and fear of punishment were measured by this projective technique.

E(2,3) THE TOOL TO MEASURE THE "DIRECTIONS OF AGGRESSION" AND "TYPES OF REACTIONS"

The Indian adaptation of "ROSENHEIM PICTURES - FRICTION - STUDY TEST" (P - P study test of children's form) by UDAY PANDY (1959) has been used for this purpose in the present research.
It is a controlled projective technique, primarily intended to measure reactions to frustrating situations. ROSENWANDIC himself has mentioned (refer preface in the manual of P-F study) three rules of society on a historical bases - the iron rule, the golden rule and the urenic rule. For achieving the state controlled by urenic rule, the pre-requisite is that we attempt to see others as they see themselves in relation to us. ROSENWANDIC finds the Picture - Frustration Study (PF study) is a tangible means for drawing nearer to this idio-cultural goal.

An adult and a children's form of study were introduced by ROSENWANDIC. The children's form of P-F study was considered particularly suitable for children. Each form of the P-F study consists of 24 cartoons - like drawings representing frustrating situations. One character in the drawing is shown as saying something that causes frustration to the other person depicted. The subject is required to say or write what the other person would say in that situation. This test is administered individually to the children.

However, a variety of needs have been covered in the P-F study i.e. the needs of approval, affiliation, inviolency, freedom, nurturance etc. and at the same time, various types of frustrating situations have been involved e.g. deprivation, conflicts and accusation. Deprivation, a frustrating situation,
exists constantly in the personality of deprived children. The P-F study is used for the purpose of finding out what types of reactions may appear in deprived children due to this frustrating situation. "Deprivation-frustration" develops as a "trait" among deprived children and this affects the overall behaviour. In contrast to this, the non-deprived children are supposed not to develop this frustration. Their frustrations, if they have any, are due to other reasons. Therefore, the P-F study has been preferred to find out the "types of reactions" and "directions of aggression", resulting from frustration, in both the groups.

The Indian adaptation of P-F study is intended for use on children of 4 to 13 years of age. This test is administered in about 20 minutes and the children write the responses themselves. After establishing a rapport with the child, the following instructions are issued.

"This is a game in which there are some pictures of people doing and saying different things. Look at the pictures carefully, one at a time. One person is always shown saying something. Read what that person is saying, then, write in the empty space, what you think the boy or girl, would answer. The answers you give, should be the first thing, you think of. Work as fast as you can. Proceed to the next picture, only after
you have written the answer for the first and do not leave any picture unanswered”.

The main purpose of the instruction is to orient the child away from any self-critical attitude and towards a more “objective”, identification with the anonymous boys and girls given in the pictures. In this way, the child tends to project, and perhaps reveals his own underlying modes of response in the depicted situations. It is necessary that the subject responds to the pictures in the same sequence as given in the form, because the analysis of scores depends on this order.

A record blank is used for scoring each child’s responses in which two dimensions are assigned to each response - (i) “The Direction of aggression” and (ii) Reaction - type”. “Direction” include “EXTRA PUNITIVENESS” (E) - in which aggression is turned into the environment; “INTRAPUNITIVENESS” (I) - in which it is directed, by the subject, upon himself; and “IMPUNITIVENESS” (I) - in which aggression is evaded in an attempt to gloss over the frustration. Under “Type of reaction”, there are - (i) “OBSTACLE-DOMINANCE” (O-D) in which the barrier, which is the cause of frustration, stands out in the responses; (ii) “ego-DEFENCE” (E-D) in which the ego of the subject predominates; and (iii) “NEED-PERSISTENCE” (N-P) in which the solution of the frustrating problem is emphasized. Thus, the scoring of responses requires only two factors. According to these dimensions, the "Profile and deviation"
pattern" (given in record blank) is filled out by the investigator for each child and then the percentages of these scores are calculated.

The present study is related only the above mentioned two dimensions and is not the assessment of the "whole" personality of the child. Therefore, the scoring has been done only for "types of reactions" and "directions of aggression".

B(3) - THE TOOLS TO MEASURE THE SOCIO-ECONOMIC-STATUS

To match the economical, education and family situation, the tool of SOCIO-ECONOMIC STATUS SCALE (SES) by B.KUFPUSAMI has been used. The scale is easy to administer and score. Its reliability is 605 and validity is 742.

The three important variables (Education, Occupation and Income) were measured on a 7 point scale, by providing equal weightage to the different variables and by assuming equal intervals between the different points of the scale. An arbitrary weightage (by KUFPUSAMI) of 7 to 1 was given to each of the items in each of the three variables. Thus the total score ranged from 3 to 21. The social status classes were divided into the following five groups in the test.
(i) Upper
(ii) Upper - middle
(iii) Lower - middle
(iv) Upper - lower
(v) Lower.

The subjects of this study belong to the 3rd, 4th and 5th categories and only the 1st and 2nd categories will not be included because the main group of the subjects of this study belong to orphanages and it was made certain that they do not belong to the 1st and 2nd categories of SES. Therefore, the other two controlled groups were also drawn from the population which belonged to the same SES.

There are two forms in the scale - Form "A" and form "B". Form "A" is to be filled by the parents and Form "B" is to be filled by the child itself. Only one form is sufficient to know the SES of a family or a person. Therefore, keeping in view the immaturity of the subjects of this study and unreliability of the answers expected from them, only form "A" has been used by the investigator for matching the groups. The investigator wrote the answers given by the parents or guardians when they were unable to fill in the form themselves.

The score-card for each child was prepared and the raw scores were converted into weighted scores for three variables...
(Education, Occupation and Income) to find out scores to designate socio-economic status of a particular group.

The subjects of all the groups – those deprived of one parent (D), those deprived of both the parents (D₂) and non-deprived (ND) were categorized as followed –

1st category - 26 to 29 scores  
2nd " - 16 to 25 scores  
3rd " - 11 to 15 scores  
4th " - 5 to 10 scores  
5th " - Below 4.

Finally, only those children were included in the samples who could be matched on SES with the children, living in the orphanages and thus, only the 3rd, 4th and 5th categories constituted the total sample of the study.

E(4) THE RECORD OF ACADEMIC LEVEL

The level of education remains the same in all the three categories. For this purpose, the investigator selected children from the 3rd to 7th grade.

Another point kept in mind while equating children on the educational variable, was the effort to concentration on either the same institution or institution of a similar level,
judged so by three authorities.

Thus, these tools or techniques were applied in the present research for measuring the variables. All the measures could provide the maximum reliable data.

(F) THE PROCEDURES

The procedure of data collection bears the same importance as the collected information itself. The procedural steps of the data collection are as follows -

(i) After finally selecting the groups and finishing all the formalities, the testing-stage came. First of all, the parents or persons-in-charge of the children - in families or in orphanages - were approached and requested to give a weekly report of their wards' aggressive behaviour. These reports were collected after seven days of distribution.

Simultaneously, the Daily Behaviour Report(DBR) were given to the teachers and they were requested to fill in daily behaviours of children for a period of one week and to return the forms after seven days.

The children of all the groups were to be measured on these tests. The children - apperception test (CAT) was administered individually to them and
their responses were tape recorded. Then, after
giving some period of gap (ranging from 20 to 24 hours)
to the children, the picture-frustration-test (P-F)
test was given them individually and the responses
were written in record-books in the form of direction
of aggression and reaction-types. Precautions were
taken against fatigue effects in the children.

At last, after getting the above mentioned data
from the children in a particular institution, all the
children were given the Guess "who" - Tool (G2)
in groups. Precautions were taken to control copying.

(ii) The individual files were prepared and the scores
were tabulated. The data of each child was included
with full care, in the particular group's data to
find out the "Mean-scores", "Correlations" and "t"
ratios. The comparison of the aggressive behaviour
and its varieties was done only between the two main
groups - the experimental group of deprived children
and the controlled group of non-deprived children.
The third group, treated as a second control group,
which consisted of 55 children - deprived of only
one parent (D), was tested only to get scores for
finding out the pattern of the trend-curve showing
aggressive behaviour.
The research is based on "BETWEEN GROUPS" design basically. All the comparisons are done between two groups, each consisted of equal number of subjects. Last to know the interaction effect, a factorial design, taking only very important variables of this research, is also used to realize the secondary objectives of the study. This design is $3 \times 3$ (determinant directions of aggression - $R/I/H$) x $2$ (determinant type of reaction - $OD/ED/HP$) x $2$ (high/low fear of punishment). In each treatment only 9 subject's scores could be included, making the total size only of 90 units, drawn from the original number of 165 subjects.

Thus the total data collection took a period of more than a year.