

CHAPTER V

PROCEDURE AND DATA COLLECTION

SAMPLE SELECTION

As said in the tentative plan approximately 100 dull backward students and 100 comparable normal students was the minimum requirement of the sample for study. Selecting such students with the three criteria, namely, Intelligence Quotient, School Achievements and the Teachers' opinion and from secondary schools in rural area is a long process. It took about four months (1964-65 November to March) to finalise the sample.

To fulfil the three criteria, three operations were carried out in succession. They are described below :

A. Administration of the Group Test of Intelligence

Studying I.Q. was the first operation in listing students to make the sample. Students enrolled in 17 classes of 9 secondary schools situated in the rural area of Broach and Surat Districts of the State of Gujarat were administered

the 'Group Test of Intelligence' prepared by T.P.Lele et al. The following table shows the names of the schools and standardwise students tested in the present programme.

TABLE NO.1 : STANDARDWISE NUMBER OF STUDENTS TESTED ON AN INTELLIGENCE TEST IN VARIOUS SCHOOLS

No.	Names of the Schools	Standard with strength			
		VIII	IX	X	XI
1.	The Dayadra High School, Dayadra	36	-	40	30
2.	Karmad Sarvajanic High School, Karmad.	-	38	-	36
3.	The Tralsa Vibhag Vidyamandir, Tralsa	40	-	-	-
4.	Samni Satral High School, Samni.	-	42	36	-
5.	The Pariej High School, Pariej.	-	30	-	-
6.	Vinay Vidyamandir, Nikora.	32	30	-	-
7.	R.K.Vakil High School, Ilav	-	37	32	-
8.	S.P.M.High School, M.M.Mangrol.	-	43	41	-
9.	Lok Vidyalaya, Kim.	38	-	35	-
Total		146	220	184	66 =616

In administering the test, all the instructions given in the 'Manual' for the test were followed word to word. During the test, the investigator always made sure that each student has followed the instructions, that each student was doing his own work and working on the correct part of the test.

The standard set for the selection of dull and normal students was as follows :

A Student having an I.Q. of 70 to 85 on the Group Test of Intelligence prepared by T.P.Lele and others, should be considered as dull. The selection level for the normal students was set at 95 to 105 so as to make the two groups quite differentiating and comparable. The border-line students having an I.Q. from 86 to 94 were intentionally omitted from selection.

Quantification of the answer booklets was done according to the method given in the 'Manual' of the test. After scoring, two lists were prepared. One showing the names of the students whose I.Qs. were from 70 to 85, and the other showing I.Qs. from 95 to 105. The following table gives information about the number of students on both the lists.

TABLE NO.2 : STANDARDWISE DISTRIBUTION OF STUDENTS LISTED ON THE BASIS OF I.Qs.

Standards	Total Strength	No.of dull students	No.of Normal students
VIII	146	56	41
IX	220	64	64
X	184	47	45
XI	66	17	17
Total	616	184	167

B. Collection of School Examination Marks

Studying examination marks was the second operation in selecting students to make the sample. From the result sheets of the Terminal Test held last (October, 1964) the total marks of each student from all the schools from which the sample was to be selected were studied critically. In order to reduce them to comparable numbers, T Scores were thought of. Considering each class as a unit, the total marks of each student in the class was converted into T score after calculating Mean and Standard Deviation of the unit. (A table showing Mean and S.D., of a class and conversion of raw scores into T scores, is given in the Appendix B₁ (Page No. 282).

From each class students getting 40 or less T scores were listed as educationally backward and those getting T scores from 45 to 55 were listed as normal students. As in the case of I.Qs., here also the students having T Scores between 41 and 44 were omitted so as to make the two groups well separated. The list made on the basis of T Scores was compared with the former lists (having 184 dull and 167 normal students) made on the basis of I.Qs. The common names on both the types of lists were sorted out.

Thus, the list of dull students was reduced to the list of dull backward students having I.Qs. between 70 and 85 and T scores 40 or less. The list of normal students was

made more completely of normal students, normal in I.Q. and normal in achievement. The prior lists were consequently reduced. The exact figures in the two lists after the second operation are given in the table below.

TABLE NO.3 : STANDARDWISE DISTRIBUTION OF STUDENTS IN TWO GROUPS, LISTED ON THE BASIS OF TWO CRITERIA: I.Q. AND SCHOOL ACHIEVEMENTS

Standards	Total Strength	No. of dull backward students	No. of normal students
VIII	146	36	34
IX	220	50	54
X	184	35	43
XI	66	11	13
Total	616	132	144

C. Teachers' Opinion

This was the third and the last operation in selecting dull backward and normal students. For all the 17 classes from which the sample was to be drawn, three teachers per class, who were taking a number of periods in that class and who were in close contact with the students in that class, were asked to divide the students in that class into the following five categories :

- A : Well above Average
- B : Above average
- C : Average
- D : Below average
- E : Well below average

Following instruction was given to them for keeping in mind while categorising the students:

' Do not base your judgment entirely upon school examination marks. You may think of it as one of the factors. Consider important qualities such as students' common sense, originality, quickness and accuracy of mental grasp, ability to reason clearly about new and difficult problems, command of language etc. Do not over-rate or under-rate a student who is shy or silent.'

A list was prepared for each class consisting the of names/dull backward (Category - D) and normal(Category - C) students for whom all the three teacher-judges agree. This list was compared with the prior lists consisting of 132 dull backward and 144 normal students. The common names on both the lists were sorted out. The former lists were further reduced. The following table gives the details of the selected group.

TABLE NO.4: STANDARDWISE DISTRIBUTION OF DULL BACKWARD AND NORMAL STUDENTS SELECTED ON THE BASIS OF THREE CRITERIA

Standards	Total Strength	No.of dull backward students	No.of Normal students
VIII	146	26	29
IX	220	43	48
X	184	32	38
XI	66	10	10
Total	616	111(18.02%)	125(20.29%)

Thus, the final sample consisted of 111 dull backward and 125 normal students.

DATA COLLECTION

Data collection consisted of the following operations:

- (a) Rating of the sample students on CTRS by teachers.
- (b) Self rating on CTRS by students.
- (c) Recording the information of Case Record Form(Part I) for each student while interviewing. Completing the information of Case Record Form (Part II) for each student from the information collected during the sample selection and the data collection.
- (d) Recording parents' observations about the students' behaviours at home, manifesting the character traits.
- (e) Getting information about the difficulties of these students in their school work and school achievements from the three sources, namely, the teachers, the parents and the students.

Procedure adopted in collecting data is described systematically, at length below.

(a) Rating on CTRS by Teachers

A visit to the schools was arranged. A meeting with the teachers concerned was organised in each of the 9 schools from which the sample was drawn. They were explained, in brief, the purpose of this research. They were also

explained, in detail, the eleven character traits included in the study. A copy of the CTRS was supplied to every one for reference. The investigator explained the directions regarding the use of the scale.

For teachers a combined list of dull backward and normal students was made according to the schools and standards. In making this list it was seen that the identification of the two types of students was not disclosed. Concealing the identity of the dull backward students was felt necessary so as not to bring halo effect in the teachers rating.

The teachers were instructed that the rating was not to be done that day. They were asked to observe silently, the students enlisted, for about $2\frac{1}{2}$ months. They were expected to keep in mind the behaviour of these students in the light of the behaviour items given in the CTRS, the students being kept totally unaware. Thus, the raters were given ample opportunity to observe the students to be rated.

The copy of CTRS that was given to each teacher during the discussion was left with him for ready reference for the traits and preparing himself for the rating to be done later on. A copy of the list of students selected for study was also given to each teacher for reference.

After about $2\frac{1}{2}$ months, another visit to the schools was arranged. The teachers concerned were supplied necessary copies of the CTRS form and were asked to rate the students, included in the list, individually. They were prevented from discussing anything amongst themselves, while rating. However, they were allowed to take help from the science teacher, drawing teacher, teacher of Physical Education in rating such behaviour items which are related to the respective areas, if needed. They were requested to rate the students during their free periods on that day and finish the work by evening.

As said in the plan, three teachers were given a CTRS sheet for each student. Thus, three teachers' ratings for each student, included in the sample, were collected. This was done to safeguard against the subjective influence in the rating of this type.

In this way, all possible measures were taken with utmost care, to minimise errors in rating and maximise reliability and validity in rating.

All the rating scale forms, duly marked by the teachers were collected and scored according to the plan. In scoring the ratings by the three teachers, the following procedure was used.

The three ratings for each student were put together.

When all the three raters agreed about the level of occurrence, the weightage allotted to that level was assigned to that item. When the two raters agreed, the third rating was ignored and the weightage allotted to the agreed level was noted for that behaviour item. When all the three raters disagreed about the level of occurrence for the behaviour item, the weightage of the middle level was considered, as the weighted score for the behaviour item. The following illustration is given to clarify the system followed :

Suppose for a Student X, three raters A,B and C rated him (denoted with different colours) as follows :

NO.:	Behaviour Items	Frequency of Occurance			
		Never	Rarely	Sometimes	Often
14	Reaches late on the play ground		✓✓✓		
26	Spits or Snivels in the Class			✓	✓✓
41	Gets his own way by force in games	✓		✓	✓
41 do or	✓	✓		✓
41 do or		✓	✓	✓
41 do or	✓	✓	✓	

(✓ A's Rating ✓ B's Rating ✓ C's Rating)

Explanation

It has already been shown (Page 70) that the four levels of occurrence were assigned the numerical scores 0, 1, 2 and 3 respectively.

- (1) On Item No. 14, all the three raters agree. Therefore, the student will get 1 score.
- (2) On Item No. 26, two raters agree upon the level 'Often.' So, the student will get 3 scores.
- (3) On Item No. 41, all the raters disagree. Considering middle level for the weightage, the student will get 2 or 1 or 2 or 1 Score respectively.

(b) Self Rating by Students

The same CTRS which was specially prepared for teachers' use, was used for self-rating by the students. The students concerned were called in a separate room in the school. The rapport with the students was established with some preliminary talks, and they were taken into confidence. They were told that nothing but their honesty and sincerity in giving the information asked for in the form to be supplied would be of help. Hence they have to be candid and honest. They were assured of treating their responses as confidential.

Then they were supplied a copy of the CTRS, one to each. They were clearly explained how to use the form. There was no time limit for completing the scale. But they were asked to finish the work in about an hour. The investigator took

utmost care to see that they did not discuss anything while self-rating. Afterwards, all CTRS forms, duly completed were collected and scored according to the scheme of weightage.

(c) Recording information of Case Record Form (Part I and II)

All the information regarding home, home life and personal life of the students, was recorded by interviewing the student. The Case Record Form (Part I) was used as an interview guide.

The students under study were interviewed one by one, in a separate room in the school. By some preliminary talk they were taken into confidence. They were made quite comfortable by explaining them the purpose of the interview, which was held like an informal talk. They were assured of the secrecy of the information they supply.

In getting the necessary information during the interview the investigator did not rigidly follow the order of items given in the guide. But it was seen that the information on each item has been sufficiently collected when the interview was terminated.

The information required to be collected, given in the Case Record Form (Part II), was obtained from various sources such as the students, the teachers, the school records and the parents, at different time during the

sample selection and data collection.

(d) Recording Parents Observation

Keeping in view, the illiteracy and other difficulties of the parents in rural area, the procedure adopted for knowing the parents' observations about the students' behaviour at home manifesting the character traits was as follows:

It was preplanned that the father and the mother should be met separately and at their residence. The reasons for such a decision were as follows :

- (i) To make the interview more free, they were met at their residence, instead of calling them at the school.
- (ii) The students' behaviour with the father or the mother may differ in the absence of either of the two. If they were interviewed together, during the discussion about their child's behaviour, they might arrive at the common judgment. To avoid mutual influence of their judgment, it was felt necessary to meet them separately.

During the interview, the parents were explained each trait in terms of illustrations, already recorded in the 'Interview Guide.' The explanation was done in simple rural language so that they may well understand the behaviour implied in each trait. At the end of each explanation the parents were asked for their observations about the behaviour

of their child during the last $2\frac{1}{2}$ months or so. From their responses, the investigator rated the student and marked it in the 'Record Sheet,' which contains only two levels of frequency, viz., Never and Sometimes for each trait.

(e) Collecting Information about Educational Difficulties of the dull backward children

The problems of the education of dull backward students are very much related to the difficulties faced by the students in the school, difficulties faced by the teachers in handling the class where the dull backward students are studying with the normal students. It is also important what the parents consider as the cause of their failure. In order to be in a position to discuss the problems of education of dull backward students, it was felt very necessary to know something about the causes and the difficulties, which these boys have to face, from the three sources, mentioned above.

The sample for this study was slightly different than the sample of boys and teachers used in the study of the character traits. This information was collected from the dull backward group only. The procedure of collective approach was followed in getting insight into the difficulties faced by these boys. All the dull backward students under study were met collectively in each school and were asked to give their frank opinions regarding their difficulties in study. An open discussion was held. The students were also allowed to

give their opinions on a piece of paper if they felt shy of speaking them out. At the end of each such meeting the investigator summarised the difficulties mentioned by the group either orally or in writing. Thus the difficulties from the sample of 111 dull backward boys were covered in nine meetings in the nine schools from which the sample was selected.

Out of 35 teachers who were consulted while selecting character traits, only 16 teachers were approached for this information. Four teachers from rural area but not included in the previous sample of teachers were added as it was found that they were highly experienced teachers from rural area under study. Each teacher was approached individually and asked to list his difficulties in teaching the dull backward students.

As regards the parents, it was not possible to have a second interview with all the 111 parents. 56 fathers and 5 mothers were interviewed a second time with specific objective of getting information about the causes of the failure of their child according to their understanding. These interviews with the parents started as a social visit. The parents were not made aware of the objective of these interviews but during the social talk the investigator made a point to put a direct question to the parents as follows:

' Why do you think the student(the name of the student under study e.g. Mohan) fails in the school ?' The answers given to this question were specially listened to and got clarified. At the end of all the day's interviews the investigator summed up all the causes mentioned by all the interviewees. On an average three interviews were taken on any one day. Thus, about 20 such summaries were made from the interviews of 61 parents.

SUMMARY

The chapter is divided into two major sections, viz., Sample Selection and Data Collection.

In selecting dull backward and normal students, three criteria, viz., Intelligence Quotient, School Achievements and Teachers' Opinions, were applied. To fulfil the three criteria while selecting the students, the following three operations were carried out in turn :

- (a) Administration of the Group Test of Intelligence.
- (b) Collection of School Examination Marks.
- (c) Obtaining Teachers' Opinions.

The sample was drawn from nine secondary schools situated in the rural area of Broach and Surat districts in South Gujarat. The final sample, selected on the basis of the above mentioned three criteria, consisted of 111 dull backward and 125 normal students.

Data collection consisted of the following steps :

1. Rating students on CTRS by teachers.
 2. Self rating on CTRS by students.
 3. Recording the information of Case Record Form (Part I).
 4. Completing the information of Case Record Form (Part II).
 5. Recording parents' observations about the students' behaviours at home, manifesting the character traits.
 6. Getting information about the difficulties of the dull backward students in their school achievements from the teachers, the parents and the students themselves.
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