Chapter V

DATA COLLECTION
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CHAPTER V

DATA COLLECTION

5.0 Nature & Features of data

Every data collection method has advantages and disadvantages. Every strategy for collecting data is good for somethings and not so good for others. There are long standing feuds, for example, between advocates of interactive research and advocates of passive research, between advocates of using existing data and advocates of generating new data.

Interactive methods of collecting data involve direct contact between the data collector and the people being studied in interviews or group discussions. Passive methods involve little or no contact between the researcher and the people being studied without the notice of the people observed. It is probably a good idea to use passive methods first and then interactive methods to get more data.

Existing data has the advantage of being objective. There is no way that bias of the researcher can influence the data compiled before the research effort begins. Those who advocate generating new data through experiments, questionnaires, interviews etc. suggest that the problem of methods can be solved and it is possible to control the research process adequately so that the data collector does not significantly affect the responses of the subject. It is probably best to remain in the middle ground in this feud
too. Existing data is certainly attractive if it answers all the questions but there are some of cases where it is necessary to generate new information where an experiment is to be designed or preparation for an interview is to be made.

In the present research, requisite data was generated and to some extent interactive method was used.

5.1 Selection of Schools

Once the research problem was decided and the package was constructed, it was necessary to gain the co-operation from schools. The core part of the research programme was to be carried out in the school, so the organization of schools to conduct the training was a very major and vital step. It is a well established fact that managements in very few schools have innovative and progressive outlook towards various experiments which are carried on in an educational field.

Lot of time and efforts were spent in approaching various schools. Generally most of the principals had a lot of queries regarding this novel and unusual programme. But the headmistress of Ahilyadevi Girls' High School, Pune and the Principal of Abhinava Vidyalaya, Pune (Maharashtra) were willing to participate in the programme. So the necessary permission was granted and the training programme was conducted in the respective schools.

The procedure of data collection started with the pilot study.
5.2 **Significance of the pilot study**

i) It provides an opportunity for preliminary testing of hypotheses.

ii) It provides the researcher the ideas, approaches and clues, not foreseen prior to the pilot study.

iii) It permits a thorough checking of planned statistical and analytical procedures.

iv) It generally reduces treatment errors.

v) Implementation of alternative approaches is possible.

vi) From the feedback of the pilot study proper environmental procedures can be planned.

Thus a pilot study was conducted as a part of the present research expecting clear and definite path for the experimentation.

a) **Conduct of the pilot study**

**Objectives**

i) To verify the stimulus potential or response value of each item of convergent and divergent production.

ii) To understand the response and suggestions of the teachers.
iii) To understand the various reactions of the students as the programme was a novel one.

iv) Last but not least, to verify the time which is required to complete each item in the verbal package.

b) **Design of the study** - Two groups of experimental design.

c) **Sample** - Randomly selected students studying in IX std from Modern High School, Pashan, Pune. Each class consisted of more than fifty students.

d) **The method of conducting the pilot study** - On a scheduled time during the school hours the researcher established a rapport with the students before actually conducting the study. One school period of 35 minutes was spent in knowing each class. Students were told that the exercise in which they were participating was like a game where there were no right and wrong answers. The students were instructed that they had to stretch their imagination and they had to give as many answers and responses as they could. The students were assured so that they could respond freely without inhibitions and fear. The pilot study was conducted for a week.

e) **Nature of the training period in the pilot study** - In every training period the researcher explained an item in the beginning of the period e.g. In one of the task, the students had to write as many words as they could which
ended with Marathi alphabet "क". The researcher herself gave the examples e.g." चमक". The words were also written on the board. It was made sure that the concept was understood by the students. Then they were motivated to write as many responses as they could. The students also received appreciation for their work. Ample time was provided to note down the responses. At the end of the period the discussions regarding the responses took place. The teaching period consisted of thirty five minutes and the students reacted to one item in each period.

At the end of the pilot study the students were asked to note down their personal views and reactions.

The pilot study provided a guide line in the frame work of the training programme. The following observations were noted.

i) It helped in deciding the stimulus potential of each item.

ii) It helped in determining the time required for each item.

iii) The students were enthusiastic about the programme.

iv) The teachers also gave a positive feedback.

With the help of these findings the verbal package was refined, a few items were omitted and the package was given a final shape.
5.3 **Administering the Creativity test**

Before the training programme started, the creativity test (in an abridged form) by Dr. M.B. Kundale was administered to two classes. i.e. - IX std A in AhilyaDevi Girls High School, Pune and IX std B in Abhinav Vidyalaya, Pune. As mentioned earlier it was not possible to administer the full test because of the time factor. Instead the relevant items were chosen from the creativity test and they were printed in a question form. All the items in the original test could not be included in the new test because specific time was allotted to the researcher by the school authorities. It was thought that the students would take about three to three and a half hours to answer all the questions. It was also decided that if any of the students wanted more time (say about 30 to 45 minutes) to complete the writing, the permission would be given.

Thus the test was administered to IX std 'A' division in Abhinav Vidyalaya from eight to eleven O' clock in the morning. The test was administered in examination conditions. On the same day in the afternoon the test was administered to the IX std "A" division students in Ahilyadevi Girls' High School. The timing for conducting the test was from 2-30 p.m. to 5.30 p.m in the evening. The researcher was herself present while the tests were conducted. The answer sheets were provided to the students. Once the test was over the answer sheets were collected and examined.
5.4 **The training procedure**

As mentioned in chapter III the training sessions were conducted as per plan in Abhinav Vidyalaya were conducted during school hours in the mornings while the training sessions in Ahilyadevi Girls' High School were conducted in the afternoons. The training period consisted of thirty five minutes (school period) each day. On some occasions the training continued for two school periods.

**Training session 1st day**

**Objective** - To establish rapport with the students.

Every attempt was made to create a rapport and an informal atmosphere in the class. The students were given a general orientation regarding creativity. They were encouraged to speak freely in the class.

**Training session 2nd day**

**Objective** - to list down words which had more than one meaning.

The students had to write words which had more than one meaning. e.g. (कर, पर)

First the researcher herself cited two or three examples. The same examples were written on the board. The researcher made sure that the students had understood the concept and then they were told to write similar words in the notebooks provided by the
researcher. The researcher was active in the class moving from one row to the other. She talked to the students, coaxed, urged and encouraged them to write more. Last 10 minutes were spent in reading out the responses. The students themselves were asked whether the responses fitted in the category. Thus the training session was conducted very smoothly. The number of maximum responses on the item was twenty five.

**Training session - 3rd day**

Objective - Sentence completion

The students had to do the exercise of filling in the blanks. Four different words having the same meanings were given. The students had to use the right word in the right blank.

**Training session - 4th day**

Objective - Sentence Completion

The above described exercise was continued in training session.

**Training session - 5th day**

Objective - To test originality in thinking i.e. to make the students think in an unusual way.

The students were told the uses of a thing and they had to think and write the name of the object. As usual the responses were
discussed in the class. Some responses were proper while others were not so proper. Thus the students were informed accordingly. The discussions were quite stimulating and enjoyable for everyone.

**Training Session - 6th day**

**Objective** - Transformation

Some words were given and the students had to construct different words from these words. The researcher explained the concept and cited two examples. e.g. साजरा, जवसा, रजसा

Once the exercise was over the responses were read out.

**Training session - 7th day**

**Objective** - Increase in fluency through practice.

Here the students had to write Marathi words which ended with alphabet ड and र. The students could write as many as 90 words for the alphabet ड and 96 for the alphabet र.

The students who wrote more than 50 words were congratulated in the class.

**Training Session - 8th day**

**Objective** - Increase in fluency through practice.

Here the students had to write words ending with the particular
alphabets. But the situation was different. They had to write some words having three alphabets and some having four alphabets. The range of responses varied between 30 to 60 words per alphabet.

\[ \text{E.g. \ च ने सुन छोड़ गरी आसरी शब्द} \]

**Training session - 9th day**

**Objective** - Increase in fluency through practice.

The students had to write as many words starting with a particular alphabet. The second task was to write three lettered words starting with a particular alphabet.

In this session also the researcher encouraged the students to try and write as many words as they could.

**Training session - 10th day**

**Objective** - Increase in fluency through practice.

The students had to write words starting with \( \text{ or } \). The words which started with \( \text{ were three lettered words. The words starting with } \) \( \text{ were 4 lettered words.} \)

The students enthusiastically wrote as many as 70 words.
**Training Day - 11th day**

**Objectives** - Increase in fluency and originality through practice.

Here the students had to fill in the blanks. The blank could be filled with more than a word e.g. मलबा — आवृत्त
( पोटायला, वाचायला, बदल करयला.)

Thus the students were made to stretch their imagination inorder to complete the exercises. The students found the exercises very enjoyable. Like other training sessions in this session too, the answers were discussed.

**Training day - 12th day**

**Objective** - Increase in fluency and originality through practice.

In this exercise the students had to make as many sentences as they could using given words. e.g. बनाई, घर.

The students could make twelve sentences out of these two words.

**Training session - 13th day**

**Objective** - Increase in fluency and originality through practice.

Thee students had to write the names of various blue coloured objects.
For e.g. sky, birds, water, flowers.

Thus the exercise was completed.

**Training session - 14th day**

**Objective** - Increase in flexibility and originality through practice.

The students had to classify various objects. The researcher wrote the names of the objects on the blackboard. The procedure of classification was explained to the students. Then they were told to classify the objects. They were also told that the same objects can be classified in various ways.

**Training session - 15th day**

**Objective** - Increase in fluency and flexibility through practice.

In this session some stimulus words were written on the board. The students had been given other words which were connected with it. e.g. चव्या — अध्यास्त, काबा.

Thus a word started a chain reaction of other words.

**Training session - 16th day**

**Objective** - Increase in originality and flexibility through practice.

e.g. अफ़ीस्तार्जेव — घार — भारद्वकिं
Training session - 17th day

Objective - Increase in originality and flexibility through practice.

Training session - 18th day

Objective - Increase in originality and flexibility through practice.

The students had to write various uses of things, e.g., Tooth-brush, paper clip, etc.

Many students wrote very unusual and innovative uses.

Training session - 19th day

Objective - Increase in Originality and Flexibility through practice.

In this exercise some letters were given and the students had to construct meaningful sentences using the letters.

Training session - 20th day

Objective - Increase in fluency and originality through practise.

In this exercise two words were written on the board. The students
had to construct new words using these two words. As usual the researcher herself cited the example. From given words like.

पान, दिसंब. — पान, नर.

Then the students were asked to write words in their note books and make sentences using those words.

From 21st session to 25th session, the training was given for two school periods. In this phase the student had to complete stories, write short stories and also write a few compositions. So it was necessary to devote more time.

**Training session - 21st day**

**Objective** - Increase in Elaboration technique through practice

The students had to write short stories. The titles of the stories were given to them. The titles were rather unusual.

**e.g.** अबलेट कोंकणी.

The students found this exercise difficult. But they tried to write. The researcher herself wrote a story and read out to them.

**Training session - 22nd day**

The same exercise as on 21st day was continued in this session.
Training session - 23rd day

Objective - Increase in elaboration technique through practice

The researcher had written two stories on the roll up. The students were instructed to read them. They had to give an appropriate title to each story. This exercise was completed in one school period. On the same day in the second period a different kind of exercise was explained to the students.

The beginning of a story was given and the students had to complete the story. Some stories were read out in the class.

Training session - 24th and 25th day

Objective: Increase in Flexibility and Originality through practice.

Some topics for writing a composition were given to the students. They had to think and write on their own. Some compositions were read out by the students in the class.

5.5 Administration of the Post Test

After the training was over, the class was administered the same test in the same examination conditions. The other three divisions of IX std were also administered the same test.

The answersheets were collected and examined by the researcher.
Thus the data collection for the present study was over. The data analysis was done which is being discussed in the next chapter.

5.6 Various aspects regarding the programme

5.6.1 Seating Arrangement

For training purpose the researcher should be able to observe and interact with every student. The training was given to the students in their respective classes. All the students were facing the blackboard. The students were provided the note-books.

5.6.2 Instructions to the students

Everyday at the beginning of the training sessions the students were given clear instructions and they were encouraged to perform well. Their queries, doubts were cleared immediately on the spot.

5.6.3 Collection of the data

The Creativity test was given in the form of a question paper. The answersheets were collected and examined.
### Table 5.1

**Time schedule**

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<tr>
<th>Dates</th>
<th>Activities</th>
<th>Time</th>
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<tbody>
<tr>
<td>30-11-94</td>
<td>Administering test in Creativity to 2 groups</td>
<td>3 hours 30 minutes (two shifts)</td>
</tr>
<tr>
<td>1-12-94</td>
<td>Conducting training programmes</td>
<td>1 school period every day</td>
</tr>
<tr>
<td>to 24-12-94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-1-95</td>
<td>Administering test</td>
<td>3 hours</td>
</tr>
<tr>
<td>3-1-95</td>
<td>Non-Creativity to Discussion regarding reactions about the programme</td>
<td>4 hours 30 mins.</td>
</tr>
<tr>
<td>to 15-2-95</td>
<td>Discussion regarding the knowledge of results with the students.</td>
<td>1 school period</td>
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REFERENCES

Campbell D. T.

Van Dalen, D. B. and W. J. Meyer