CHAPTER VI

DATA COLLECTION (The Field Work)

This chapter provides the picture as to how the different kinds of data have been collected. The investigator had already planned out the tools which were to be used in this experiment. Selection of the tools is also a very important phase of the experiment, as every tool has its own importance. John Best rightly says, "like the tools in the carpenter box, each research tool is appropriate in a given situation to accomplish a particular purpose."1

Before applying the tools, some proper arrangements should be made to perform the experiment. The classes were divided randomly into two groups. According to the plan each group consisted of 40 boy and girl students. The number of boys and the number of girls were same in each group, i.e., 20 boys and 20 girls. Such an arrangement was made for all the standards. In all, the sample was of 240 students from the three standards (V, VI and VII).

Pre-Test

In this experiment, the investigator had considered the first test which was conducted by the school, viz., the Sardar Patel Vinay Mandir, Vasad, as the pre-test. So, the investigator collected marks of the first test from the
concerned class teachers. The investigator had no difficulty in collecting the marks because the teachers were cooperative and they had assessed the answer books of the students before the experiment.

**Administration of the Programmed Learning Material**

There were two groups for each class. One group was to be treated as an experimental group (group A) and the other group was to be treated as the control group (group B). In this experiment two different treatments were to be provided to these two groups. The experimental groups were provided with the programmed learning material of branching style. The programmed learning material was of mathematics of the classes. In the control group, the subject-teacher was supposed to teach the matter through the conventional method.

Before starting the experiment, the investigator gave the instructions to the assistant teachers who were in the experimental divisions. The investigator instructed them that they had to read the instructions of the first page of the 'tutor book' or the 'seramsembled book'. So, the students would know how to use the book. They had not to give any more instructions to the students while the experiment was in progress. They had to assist the students where they were not clear in reading. They should ask them that it was not an examination but the students were
learning the matter through this type of material. So, they had to work in their own way. If a student had any difficulty in reading or any difficulty in understanding the word, the student could ask the assistant teacher. The students should be comfortable in the classroom. There would not be more than two students on one bench.

The students had given one period a day for this experiment. Mostly, it was the first period of forty minutes. The investigator gave sufficient time to learn the weak points to the students which were supplied in the text.

The students of all the three classes had no difficulty in reading the materials. They used the book with full understanding.

The second group which was treated as the control group, was taught by the subject teachers through conventional method of teaching.

The investigator had given the list of weaknesses of the students of three classes in the subject. The teacher had to teach those points in the class. The teacher had not to waste time in other things. These teachers were given the same duration to complete the list of weakness as the experimental groups to complete the content. These groups also did their job in the first period of forty minutes. Both the groups worked simultaneously in the
In this way, both the groups took the same time to complete the common content of arithmetic.

The teachers of the control groups taught the given matter sincerely. They had not wasted any time in other things. They completed the content in prescribed time. This experiment lasted for one complete week.

**Administration and Scoring of the Intelligence Test**

As the intelligence is one of the intervening variables in learning, the investigator tried to partial out the effect of intelligence by statistical control. So, it was necessary to know the level of intelligence of the students. The students of standards V, VI and VII were given the "Group Intelligence Test" of Champaben Bhatt. This test is only for standards V, VI and VII.

There were six teachers for each group. All these six teachers were trained as to how to administer this test.

The investigator was particular about the seating arrangement of the students. There were two students on each bench.

The teachers told the students to follow the instructions strictly. They had to use pencil for tick. They should write the name on the front page in clear handwriting.
The teacher read the instruction of the front page in the class. Then the teacher gave practice for one test which is there in the test. The teacher asked them when he gave signal for stopping, they had to put down the pencil on the desk. When the teacher gave signal to start the work, they had to start. There were seven sub-tests, in the intelligence test. Each test had its own instructions and timing. The students had to complete the sub-test within that time.

After completing the test, the teachers collected the copies of the test and gave them to the investigator. Then the investigator scored the sub-test according to the instructions of the manual of the Group Intelligence Test.

The Testing Phase

After completing this experiment, the subjects were given a gap of a day. And then the investigator gave the common post-test to both the groups of the standard. The investigator prepared three post-tests, one for standard V, one for standard VI and one for standard VII. By giving these tests to three standards, the investigator wanted to find out the effectiveness of two treatments. The tests were of twenty marks. The performance of the students was found out by checking the answer books of the students. Then the marks were awarded. The effectiveness of the treatments were measured by how much students earned marks from the group.
It is worthwhile mentioning that the oral instructions for branching material and for the post-test for all the groups were given personally by the investigator himself.

Reference