

CHAPTER - III



CHAPTER III

METHODOLOGICAL DETAILS

The theoretical framework as well as the empirical support to the study have been presented in the previous chapters. The present chapter covers the design of the study and the methodological details such as nature of data, sources of data, sample and the tools used.

Design of the Study

On the basis of the stance taken in the conceptual framework, the study investigated the effectiveness of primary education, taking mainly its interactive nature into account. This necessitated the study to investigate the development of primary education with regard to two dimensions viz. development of primary education in terms of certain quantitative aspects and interaction of primary education in terms of its influence on local contexts and the responsiveness of the local contexts to primary education. So the investigation was carried out at different levels - state, district, taluk and village. At each level data of different nature were collected from multiple

sources adopting a combination of techniques and using tools of various kinds.

Nature of Data

The Data collected for the study are both quantitative and qualitative in nature. Quantitative data in the form of numerical information pertaining to educational and demographic details such as target population and enrolment in relation to sex class and teachers were collected at the state, district, taluk and village levels. Qualitative data on the nature and extent of interaction of primary education were collected in the form of perceptions and reactions of functionaries and members of the community on facilities available for primary education, response from the community and involvement of functionaries, descriptions and perceptions of the investigator regarding development of primary education in the local context and the contribution of primary education to general awareness, aspirations, political, economic and health conditions of people.

Sources of Data

Different sources were to be tapped to collect such varied data mentioned above, covering a large unit

like the state and the local contexts etc, and a long time span of 30 years. Various sources had to be identified for different data and they were in the form of:

- a. Official documents at the state, district, taluk village and schools.

They were:

1. Census Reports of Tamil Nadu 1951, 1961, 1971 and 1981, primary census abstract and social tables of census of Tamil Nadu, 1981.
2. Public Instruction Reports of various years from 1950-51 to 1983-84, Government of Tamil Nadu.
3. Education in India, Ministry of Education and Culture, Government of India, 1983.
4. Reports of Second, Third, Fourth and Fifth All India Education Survey, NCERT.
5. Monographs on Educational Statistics in the Directorate of school education, Madras; Offices of the Chief Education Officer and District Education Officer of Dharmapuri district and the Office of of the Deputy Inspector of Schools, Pennagaram.

6. Registers and reports available in the primary school in Makkanoor village.
7. Salem District Gazetteer, 1967.
- b. Officials at the district and taluk levels were: District Education Officer of Dharmapuri education district and the Deputy Inspector of Schools of Pennagaram taluk in Dharmapuri District.
- c. Village and school functionaries including those who retired: village leader head masters and teachers.
- d. The sources for the village level data included members of community and eminent persons among the local residents. Besides them important persons connected with the village but lived outside the village. Children of classes IV and V of the village school.

The Sample

Since the focus of the study was on two dimensions, mentioned earlier: development of primary education and its interactive processes, data of both quantitative and qualitative nature had to be collected from various sources mentioned above. Since the study

required only quantitative data at the state level and the sources of them were only official documents, no sampling procedure was followed. But data on the qualitative dimensions had to be collected from distinct socio-cultural contexts within the state. So, they had to be sampled out following some procedures. Due to the complexity and the interplay of a variety variables involved, it was decided to study the nature and extent of interaction of primary education in villages. The selection of the villages was guided by the assumption that interaction of primary education could be better discerned in remote and educationally advanced villages located in educationally backward district/taluk. Furthermore, based on the premise that influence of primary education can be understood with better focus if data from an educationally backward villages are also put together and compared with that of the educationally advanced villages, it was decided to select two villages.

For the selection of the backward district all the 15 district in the state were ranked on the basis of their literacy as per the 1981 census figures. The district ranking last in the state viz. Dharmapuri was selected. The ranking of the districts on the basis of literacy is presented in Appendix I.

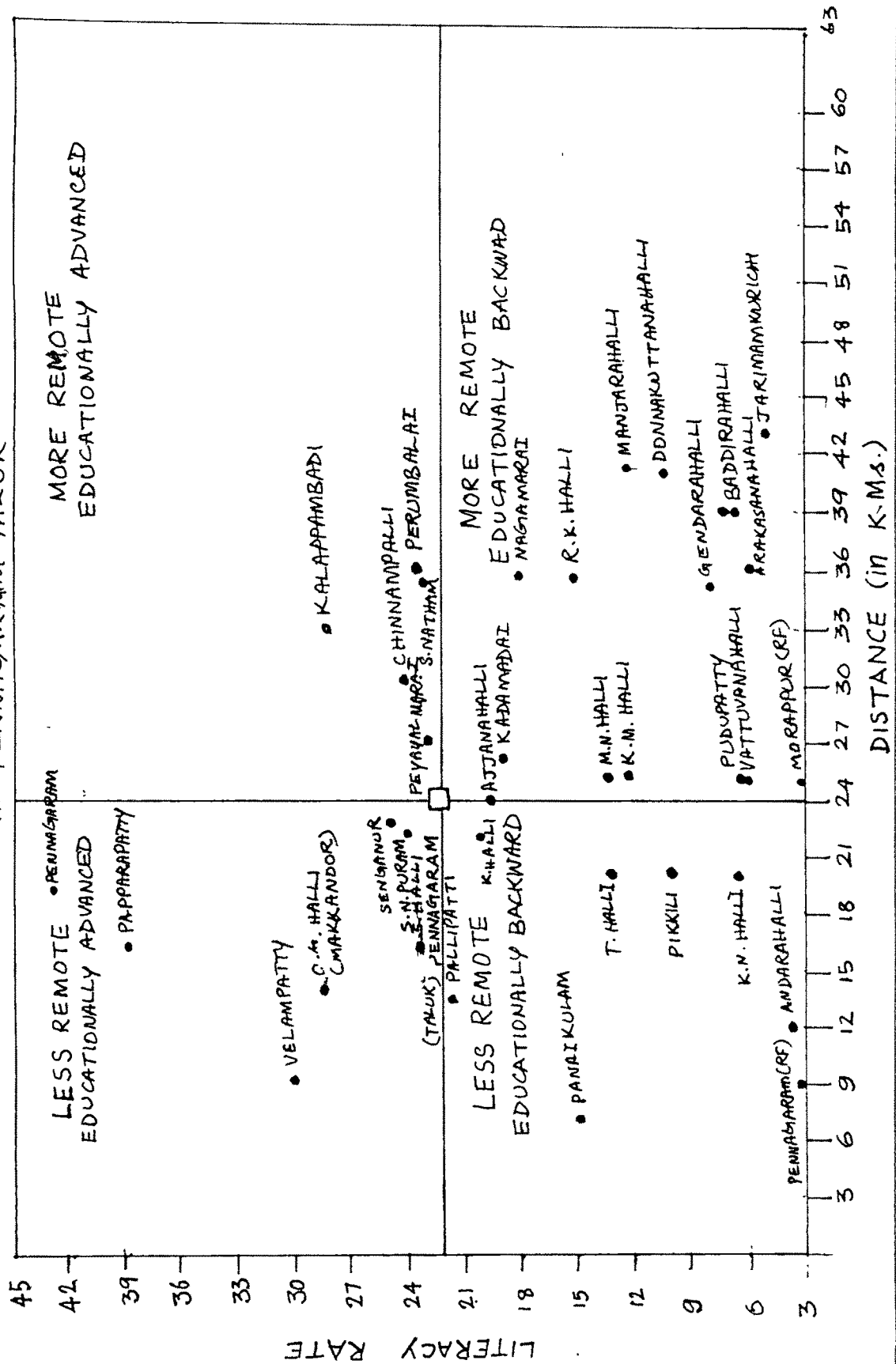
Adopting the same criteria, the taluk in Dharmapuri districts were ranked (Appendix II), and Pennagaram was identified as educationally the most backward taluk in the district.

For the selection of two villages, all the 42 inhabited villages in Pennagaram Taluk were classified on the basis of their remoteness, measured by their location from the nearest town and their literacy rates according to 1981 census data. The villages in the taluk were located at a distance from towns of 9 kms. to 44 kms. On the whole, the range of distance provided a mean distance of 24 kms. Remoteness of the villages was determined with regard to the mean distance of 24 kms. The educational level was seen in terms of (i) Literacy levels in comparison with the taluk average, which was 21.73 per cent; (ii) The number of primary schools within villages. Thus, as can be seen in Figure I, four sets of villages, viz.,

- a. Less remote and educationally advanced;
- b. Less remote and educationally backward;
- c. More remote and educationally backward and
- d. More remote and educationally advanced;

were identified. On the basis of these categories one village each was selected from categories 'a' and 'c'. But the actual investigation was conducted only in the

FIGURE I: CATEGORISATION OF VILLAGES
IN PENNAGARAM TALUK



less remote and educationally advanced village. Due to some local disturbances entry into the more remote and educationally advanced or backward village was not possible.

The nature of data, their sources and taluk No.?
the samples covered are presented in Table 4.

Table 4: Nature of data, their sources and samples covered for the investigation.

Nature of Data	Sources	Samples
- Quantitative data pertaining to educational and demographic details.	Official documents	No Samples. The whole state and all the districts were covered.
- Perceptions of officials.	District Education officer; Deputy Inspector of Schools.	One District Education Officer and one Deputy Inspector of schools.
- Perceptions of state and village functionaries.	Village leader, Head Master (Present and those who retired) and teachers of local primary schools.	One educationally advanced village.
- Influence of primary school and responsiveness of local community.	Community members, eminent persons in the village, important persons connected with the village who live outside the village, and children of the local primary school.	One educationally advanced village.

Tools of Data Collection

Tools of data collection, appropriate to varied sources were developed they were:

- Information schedules for factual data such as the target population, enrolment, number of schools, teachers and auxiliary facilities, to be collected from the state, district and taluk levels.
- Information schedule for the factual data from primary schools in villages.
- Interview schedule for the District Education Officer and the Deputy Inspector of Schools.
- Interview schedule for Headmasters and teachers of village primary schools.
- Interview schedule for village leaders.

These tools were developed keeping in view the several aspects to be covered. The tools thus developed were given to five experts for scrutiny. They assessed the tools for their comprehensiveness, and appropriateness of items. On the basis of the assessment, tools were appropriately revised, and the approved items in each tool were selected and the final forms of the revised tools were prepared. In addition

to the above tools, field notes based on the participant observations and the general discussions with people also served as tools for gathering data.

The details about each tool are given categorywise hereunder. A complete set of these tools is presented in Appendix III.

Information Schedules

Three information schedules, one for the state and district levels, the other for the taluk level, and the third for the village schools were developed.

The information schedule for the state level and district levels was meant to collect factual information on four aspects, viz, "General Information", "Target Population", "Availability of Facilities" and "Utilization of Facilities". The items under each of these four aspects are as follows:

- number of revenue districts;
- number of educational districts;
- administrative structure of school education in the state;
- district-wise and sex-wise population; district-wise, area-wise and sex-wise literates to total population.

Target Population

- district-wise, area-wise and sex-wise estimated population in the age group of 6-11 years.

Availability of Facilities

- District-wise number of habitations in rural and urban areas;
- district-wise number of rural habitations with a population of 300 and above, but without a school within a distance of 1 Km;
- district-wise and area-wise number of primary schools;
- district-wise, area-wise and sex-wise number of teachers in primary schools;
- district-wise and area-wise teacher/pupil ratios, and the number of single teacher schools;

Utilisation of Facilities

- district-wise, area-wise and sex-wise enrolment of children in primary schools;
- year-wise, class-wise and sex-wise enrolment of children at the primary stage.

The information schedule comprising similar details was developed for the Taluk in which other items were included such as occupation and distribution of workers in the taluk, number of adult education and non-formal education centres in the taluk, availability of the services of a mobile library, number of hospitals and health centres, type of school buildings, schools by number of class rooms, number of schools having auxiliary facilities, and the number of schools according to the number of teachers.

The third information schedule prepared for collecting factual data from the village schools had items to find out about the population of the village, the population of children in the age group of 6-11 years, enrolment of children, attendance of pupils, dropouts, school building, number of rooms, number of teachers, facilities such as drinking water, urinals etc. and instructional materials.

Interview Schedules

Totally, four interview schedules were developed, of which two meant for the functionaries - District Education Officer, Deputy Inspector Schools, the Headmaster and teachers. The third was intended for the village leader. The fourth one was used to interview

the head of the households. The specific details of each interview schedule are as follows:

The interview schedule for the District Education Officer and the Deputy Inspector of Schools had broad open-ended questions, with certain broad cues. The questions were related to the progress of education in the district, response in the district to campaigns against illiteracy, appointment of teachers, single teacher schools in the district, children not attending schools, participation of local communities in school improvement, respect for teachers, and monitoring and supervision of schools.

The interview schedule for Headmasters and teachers of primary schools consisted of open-ended questions with cues. The questions covered aspects such as the availability and adequacy of facilities in schools, the enumeration of children of school-going age, cooperation of parents for the enumeration, enrolment of children, dropouts, noon meal scheme, attendance of children, responsibilities other than teaching, monitoring and supervision and the concept of Navodaya Vidyalaya.

The interview schedule for the "village leaders" contained broad questions with cues about education in the village, the spread of education in the village

leader's own family, the involvement of the community in the functioning of the school, the need for education, the noon meal scheme, the changes in agricultural practices in the village, the employment of people, the health conditions of the people, the functioning of the local panchayat and the education of women.

During the village level study it was felt necessary to do a household survey to establish the population, literacy, occupation, land holding details more accurately. So an interview schedule was prepared which contained questions on these aspects.

Field Notes

In order to bring out the reactions of beneficiaries, members of local villages, and the contribution of primary education to the living conditions of people under close scrutiny, certain interactions of people had to be captured as they occurred. So, it was necessary to adopt participant observation and discussions were recorded in the form of detailed field notes at the end of each day in the village, by the investigator. The field notes contained detailed account of all aspects observed in the village interactions of people, agriculture, trade, health,

religious ceremonies, festivals, functioning of the school, children etc.

In addition to the above tools audio tapes were also used to record discussions and conversations with eminent people about different aspects of village life and changes in them over years.

Procedural Details

As detailed above the objectives of the present investigation demanded several sources to be tapped using varied tools. It was necessary that the whole execution of the study was designed in such a way that the sources were tapped differently. For this, instrumentation had to be developed right across the study. That is some of the tools had to be based on the analysis of data. Keeping in view such requirements, the procedures adopted are detailed below in four phases.

Phase I

During phase I, information schedules were developed. varied sources of data for the state levels were identified. Using the information schedules, state records were surveyed and data generated were examined. As a next step, sources for the sample district and

taluk were identified and tapped. Contacts for entering the local "units" were established and baseline data on them were also collected. On the basis of the examination of the District and Taluk level data, instruments for officials functionaries and village leader were developed.

Phase II

In this phase, data from District Education Officer and Deputy Inspector of Schools were collected. District and taluk level data collected during the first phase were analysed. An action plan for field observation was also developed.

Phase III

During this phase field investigation in one sample village was carried out for 15 days. It involved a household survey for the collection of base-line information such as population, occupation, economic conditions, educational levels etc. Pattern of life at the village was observed by staying in the village. Informal discussions with the village leader, and prominent persons within and outside the village were also held. Teaching and learning process in the local school was observed and the headmaster and the teachers

of the school were interviewed. The abilities of children studying in the local school, to read, write and solve simple sums in mathematics were also tested during the course of the stay of investigator in the village.

Phase IV

All the data generated examined separately in the earlier phases were analysed interpreted and reported.

Scheme of Analysis

The data collected were analysed on the following lines:

1. 'The Need' for primary education in this study is referred to be the quantity and kinds of facilities required in the state, if UPE has to be a reality. That is if all children of 6-11 years enter primary schools and complete a full duration of 5 years, the actual number of schools and other facilities to be generated comprise "The Need". It has been worked out with regard to:

- a. Number of schools;
- b. Number of teachers;
- c. Essential facilities.

The need for the above was estimated in a five year time series from 1950-51 to 1987-88 for the state and all the districts (except Madras District as it is wholly urban) and inter district variations in the need for facilities were compared. Talukwise need and variations in it were compared for the sample district, for the period 1980-81 to 1987-88. The basis for the estimation of various needs at the state, district and taluk levels is as follows:

The need for the number of schools was estimated on the basis of the total target population in the age group of 6-11 years and the norms stipulated by the Government of Tamil Nadu to divide standards into sections in primary schools. The number of teachers needed was worked out on the basis of the total target population and the Government's norms for the appointment of teacher in single teachers and other than single teacher primary schools.

The need for essential facilities was identified by taking the Government's specification to provide essential facilities in primary schools into account.

A Trend analysis was done of the availability of number of schools, number of teachers and essential facilities at the state and district levels for the quinquennia 1950-55, 1955-60, 1960-65, 1980-85, and the year 1987-88; the quinquennia 1970-75 and 1975-80 were not included due to none-availability of data on the provision of facilities.

The adequacy of various facilities was analysis of percentage of availability of them in the state and across district and taluk levels, to the actual need at each level.

The trend in the utilisation of facilities was analysed comparing gross enrolment figures, gross enrolment ratios and retention rates of pupils in primary schools, for different time periods at each level as follows: 1950-51 to 1987-88 in the state, from 1980-81 to 1978-88 in the sample district and from 1964-65 to 1989-90 in the sample village.

Gross enrolment would mean the total number of children enrolled in a particular year. Even though the official primary school age is 6-11, due to reasons such as failure to establish the correct age and stagnation, the enrolment figures might include children who are below as well as above the official age. So the enrolment figures which include children belonging

to the official age range as well as children who are not in this official age group but continue to be enrolled at primary stage is known as gross enrolment.

Gross enrolment Ratio (GER) is the percentage of all children, irrespective of their age, enrolled at primary stage, to total number of children in the age group of 6-11 years. GER was worked out by using the following formula.

$$\frac{\text{Total number of pupils' enrolled in classes I-V}}{\text{Total number of children in the age group of 6-11 years.}} \times 100$$

The retention rate at the state level was worked out through apparent cohort method using cross sectional data, by considering enrolment in class I in a given year as a cohort and comparing enrolment in all other classes in the same year with that in class I. The retention rates at the sample district and village levels were worked out through the same method but using time series data by considering enrolment in class I in a base year as a cohort and determining the relationship through diagonal analysis between the cohort and the enrolment in successive grade in successive years.

The perceptions of the functionaries were categorised and compared against the quantitative data

on the need, availability, adequacy and utilisation of facilities in the sample district.

The reactions of the village leader, parents and members of the sample village and the interactions observed were categorised into different aspects, viz., environment, economy, socio-cultural, education, awareness and health, and their interlinkages were analysed.

The data thus analysed have been presented in the next chapter, along with the interpretations drawn.