CHAPTER IV

METHODOLOGY

4.1 THE BROAD AREA OF RESEARCH

The study falls within the purview of sociology of education, as the broad area of research. Sociology of education considers education as a subsystem of society and as a social institution affecting and affected by the other subsystem. It seeks to study and describe the influence of the external social system on the school as an educational institution, and focuses on the totality of the educational processes, their patterns and consequences for the whole system. Using sociological concepts, methods and models, sociology of education describes observed patterns and projects future trends (Chitnis, 1980: 166).

Basing on the sociological understanding of inequality and educational opportunity the study attempts to analyse and present facts that would be sociologically relevant and valid. A basic concern of the study is to focus on the various dimensions in which the society as a wider system, affects and controls education, and not merely on the effects of education on society. There is need therefore to perceive access to education or educational opportunity as a social phenomenon with its structural linkages and one of
the objectives of the study is to explore and explain these structural linkages at the micro level. Accordingly, the study also draws its perspectives and parameters from the sociology of education (Chitnis in Nayar, 1982: 166-69).

4.2 THE RESEARCH PROBLEM

The research problem hovers around two sets of variables. One set consisting of the institutionalised inequalities in society and the other of the educational opportunity available to students within the system of school education at various levels.

The problem seeks to relate the role of the inequalities with distribution of educational opportunity within the prevailing system of school education and to explore the dynamics between these two sets of variables and its implication for the society. Thus, along with other specifications, the research problem may be stated as, The dynamics of inequality and educational opportunity with reference to the higher secondary students in the educational district of Tiruchirapalli, Tamil Nadu.

4.3 BASIC ASSUMPTIONS

The study proceeds on the assumption that,

1. Education is a sub-system of society and that education is basically a social process.
2. Like the social system formal education too represents a parallel stratified system.

3. Education is basically a social opportunity at the entry point.

4. Academic performance and career options ought to be understood essentially in relation to the kind of opportunity at the entry point.

5. There is a real need to view the whole system of formal education from the perspective of the dynamics of institutionalised inequalities.

4.4 OBJECTIVES

1. To identify the elements of inequality as found operative in society.

2. To investigate the stratified nature of formal school education.

3. To study the relation between the elements of inequality and educational opportunity.

4. To understand the concept of equality of educational opportunity in the light of relevant sociological perspectives.
5. To explore the nexus between the system of school education and the institutionalised inequalities, and to highlight its consequences.

4.5 WORKING DEFINITIONS

4.5.1 Inequality

Inequality implies a value judgement based on some criteria (Beteille, 1977: 4). In human society, differences such as birth, sex, place of residence, etc., get institutionalized as elements of inequality and these inequalities become integral part of the social structure and play a key role in determining one's opportunities in life. In the present study the factors of inequality taken for analysis are caste, sex, place of origin and the educational and occupational levels of parents (NPE, 4.4).

4.5.2 Equality of Opportunity

Some level of inequality in every society is inevitable and is tolerated (Beteille, 1983: 2). But this tolerable level of inequality must be the logical outcome of equality of opportunity, implying equal access and equal conditions of success (NPE, 3.6). As regards education, ensuring of equal access at the entry point and providing the equal chances of success may be referred to as equality of opportunity.
4.5.3 Equality of Educational Opportunity

Arthur Wise (1968: 143 - 159) summarizes some of the major definitions of equality of educational opportunity which may be presented as follows indicating the thrust of each definition.

The negative definition seeks to de-link educational opportunity from parents' income, level of education, place of residence and other such social deprivations.

The full opportunity definition implies opportunity to reach the maximum development irrespective of one's capability.

The foundation definition limits equality of opportunity to a prescribed, satisfactory minimum for every individual.

The minimum attainment definition seeks to allocate resources to everyone until a specified level of achievement is reached.

The levelling definition distributes resources in inverse proportion to ability, based on the assumption that children should leave the school with equal chances of success.

The competition definition calls for an allocation of educational resources in direct proportion to the individual's capability.
The equal dollar per pupil definition considers educational opportunity as a grant of the society to the individual and as such states that there can be no reason for any disparity in the allocation of resources.

The maximum variance ratio definition, while admitting the need for variation from the standard, fixes the maximum variation so that this limit is not exceeded.

Finally, the classification definition calls for equality for all, but within a reasonable classification or set of programmes.

All these definitions may be criticised, particularly, as to their indicators, measurements and practicality. However they highlight the various dimensions of the concept and caution against any simplistic view of the problem.

The present study seeking to be practical, is guided by the assumption of the negative definition that when known and avoidable inequalities are eliminated or minimized, the progress towards equality is greater. Accordingly, the study points out not only to the social inequalities, but also to those arising out of the internal differentiations of the system of education itself, and calls for an equality of opportunity particularly at the entry point so that equality of access as well as equal possibility of success are ensured.

In the present study, opportunity for education refers to the opportunity available at the entry point beginning
with the pre-primary level to the primary, upper-primary, secondary and higher-secondary levels. These levels are considered entry points since a student may gain entry (admission) into schools at any one of these levels.

The school system (Boards), medium of instruction (Tamil/English), management (Govt./aided/private) are some of the prominent components of educational opportunity taken for the study.

4.5.4 Dynamics

Generally the term 'dynamics' may refer to the 'modus operandi' of certain select forces and their consequences for the overall system in terms of some observable indicators. In the context of present study, the 'dynamics' refers to the operation of the select factors of inequality as determinants of educational opportunity.

4.6 A PROFILE OF THE STUDY AREA

The Tiruchirapalli Educational District, the area of study, is part of the erstwhile composite revenue district of Tiruchirapalli—located between 10° and 11.30° North and 74.85° East and covering an area of 11096 sq.km., which is 8.53% of the total area of the state, the highest among the districts—has been christened recently (1995) as the Perumpidugu Muthiraiyar District by the state government of Tamil Nadu (See map 1). The composite Tiruchirapalli revenue district has, as per 1991 census, a population of 4,138,048
MAP-1.

TAMIL NADU
ADMINISTRATIVE DIVISIONS 1991

KILOMETERS

10 20 25 30 40

Bounded:
STATE UT
DISTRICT

HEADQUARTERS:
STATE DISTRICT

The territorial waters of India extend to a distance of 12 nautical miles measured from the appropriate base line.

Based upon Survey of India map with the permission of the Surveyor General of India.

(constituting 7.4% of the population of the state) which is the fourth largest population size among the districts.

The Tiruchirapalli Educational District consists of the Tiruchirapalli and Manapparai Taluks which include the Tiruchirapalli Municipal Corporation and Manapparai Municipality (See map 2).

With a densely populated urban centre and a fast developing rural periphery, the Tiruchirapalli district is also centrally situated in Tamil Nadu and is well connected with the other parts of the state as well as the country by road, rail and air. While the urban centre is a hub of trade and business activity and its suburban, an industrial belt (BHEL and several auxiliary units), its rural periphery is widely known for intense agricultural activity particularly for the cultivation of paddy and bananas, thanks to the river Cauvery and its irrigation system. Besides Tiruchirapalli is also known for the number of service institutions particularly those of education and health. The area is also served by a number of non-governmental organisations (NGOs).

The educational institutions, particularly at the level of the higher and professional education, cater to students drawn not only from the locality but also from the neighbouring districts as well as from other states and from abroad. The level of general literacy (with split-ups for male and female, rural/urban) points to the significant
position of the study area in the educational scenario of the region (See Tables 4 – 7 in Appendix I).

The District also has a literacy rate of 61.22% which comes quite close to the state average of 62.66%. Similarly, the male literacy rate for the district is 73.36% (state average 73.75%). The female literacy for the district is, however, 48.94%, lower than the state average of 51.33% (See maps 3 – 5). Against this background the Tiruchirapalli Educational District may be considered well suited for the present study.

The fast developing urban agglomeration of Tiruchirapalli places increasing demands on educational opportunity. With rapid urbanization, more diversified and non-agricultural employment, better infrastructural facilities like transport and communication, enrolment in schools is bound to increase and the school as a social institution is expected to cope with this need not only in terms of quantity and quality but also in terms of equality of opportunity. Table 7 depicts this aspect in terms of the literacy level in the area of study.

4.7 UNIVERSE AND SAMPLE

The universe of study consists of the Plus One (XI Std.) students (1993–94), both boys and girls, at the higher secondary schools, in the Educational District of Tiruchirapalli (See Appendix II).
MAP-4

TAMIL NADU
MALE LITERACY 1991

PERCENTAGE OF MALE LITERATES

- 80.0% & Above
- 77.0% - 80.0%
- 73.0% - 77.0% - State Average (1991)
- 69.0% - 73.0%
- 65.0% - 69.0%
- 65.0% & Below

Boudaries:
- State
- District

Scale:
- 100 Kilometers

Based upon Survey of India map with the permission of the Survey General of India.

For territorial water of India sound into the sea in a distance of twelve nautical miles measured from the appropriate base line.
The Higher Secondary Schools are divided into different categories basing on Board, Management and Medium of instruction as follows:

1. Schools belonging to the State Board, Government Management and offering only Tamil medium (Total 12)

2. Schools belonging to the State Board, government aided private management and offering only Tamil medium (Total 16)

3. Schools belonging to the State Board, government aided private management and offering both Tamil medium and English medium (Total 19)

4. Schools belonging to the State Board, unaided private management and offering only English medium (Total 11) and

5. Schools belonging to the Central Board (CBSE), privately managed with only English as the medium of instruction (Total 1).

These schools along with their total strength of students (male and female) at the Plus One level constitute the sample frame of the study (See Table 8 in Appendix I).

The number of schools included in the study is presented in Appendix II. Selection of schools has been made by the multi-stage sampling procedure, with regard to the school system, management and medium, proportionate to
their total number at every stage. Selection of student respondents at the Plus One level, has been made by the stratified (disproportional) sampling technique, with regard to sex and distribution of groups, applying the systematic sampling procedure, (making use of the school attendance register) with a random start and with 10 as sampling interval (10% being the sample size).

**Sampling Error**

Errors that may arise from drawing of inferences about the total population on the basis of sample are known as sampling errors. These may be biased errors, usually associated with simple random sampling, or unbiased errors that could appear owing to chance differences between the population and the sample. It is proposed that as the sample size increases the sampling error diminishes and may eventually be eliminated (Gupta, 1991: 62).

It is also generally accepted that a 10% sample may adequately satisfy the requirements of statistical viability and minimize sampling error (Ramachandran, 1993).

The present study has followed two ways of minimising sampling error: first, by way of systematic sampling which avoids errors of bias, and second, by having selected a fairly large sample size (651), representing 10% of the universe.
Design

As the study is concerned with describing the school as a social sub-system and the inequalities as part of the wider social system and is also focused on finding out the possible association between the two sets of variables, (school and society ) the study may be identified with the descriptive diagnostic design (Kothari, 1990: 46).

4.8 HYPOTHESES

Based on the factors of inequality taken for the study, the following hypotheses are proposed for verification:

1. Lower the caste strata, lower the levels of opportunity in formal education.

2. The level of parental education determines the level of educational opportunity for children.

3. The socioeconomic background of parents is a deciding factor of children's educational opportunity.

4. Lower the level of parents education, lower the level of children's academic performance.

5. The order of social stratification correlates with the level of academic performance.

6. Girl students as a group are more affected by inequality of educational opportunity than boys.
7. The first generation learners are drawn from the lower social strata.

8. The rural background of students is a determining factor in educational opportunity and performance.

9. There is a close association between the socioeconomic and educational status of parents and the distribution of groups (Maths, Science, Arts, Vocational) at the higher secondary level.

10. The school systems cater by and large to the urban and rural elite.

4.9 DATA COLLECTION

Information relating to the select factors of inequality and educational opportunity at various levels of formal school education has been collected from individual respondents through a questionnaire, revised and finalised after a pilot study and pre-testing.

The questionnaire besides collecting information on the select inequalities and other particulars, seeks also to reconstruct retrospectively the type of educational opportunities to which the respondents have had access, right from the pre-primary level so as to identify the type and level of the inequality met with and to study its academic and other implications (See Appendix III).
Relevant secondary data have also been collected from various sources including the Census Books, District Statistical Hand Books, Office of the Chief Education Officer of the district and the Directorate of School Education, Madras.

4.10 TOOLS OF ANALYSIS

To verify the hypotheses of the study the Pearson's Chi-square significance at 5% level has been applied using the SPSS.

Multiple Regression Analysis has been applied to identify those variables which as a whole influence the selection of groups at the Plus One level.

4.11 LIMITATIONS OF THE STUDY

The parents and teachers of the respondents as well as the school authorities have not been interviewed though the investigator had conversed with some of them informally, especially, with the school authorities. But their views and opinions have not been recorded or included in the study.

The real income of parents in monetary terms has not been included in the select set of inequalities since the study focuses only on those inequalities that are socially patterned and maintained. Monetary income, dependent as it is on the market forces, is not really the outcome of a socially patterned inequality. However, since income does
influence one's position in society, the levels of economic
status have been computed basing on the levels of edu­
cational attainment and occupational category of parents
(both father and mother). The absence of expressing economic
status in monetary terms is conceded as a limitation of the
study.

The psychological aspects and implications of inequal­
ity particularly of unequal educational opportunity have not
been addressed to, which would have added a more realistic
and human dimension to the study.

To accommodate all these and other aspects would call
for a more holistic and in-depth study which in fact points
out to the scope for further research.

4.12 CHAPTERIZATION

Chapter I introduces the research theme and its focus,
highlights its rationale and significance along with a note
on the investigator's interest on the topic, makes a brief
presentation as to the historical perspective of the topic
and underlines the overall sociological thrust of the study.

Chapter II presents a review of select earlier studies
related to the research theme both in India and abroad and
indicates how the present study is different in scope and
approach.

Chapter III attempts to present the theoretical
background of the study, so as to gain some conceptual
clarity and theoretical insight and to accord the study a sociological orientation.

Chapter IV deals with the methodology of the study. It states the research problem, identifies its broad area, spells out the basic assumptions and working definitions and presents the universe and sampling procedure. It also states the objectives and hypotheses and introduces the tool of data collection as well as the tools of analysis.

Chapter V presents the data analysis, explains and illustrates the correlation between variables and verifies the hypotheses.

Chapter VI consolidates the major findings and concludes by making a brief comprehensive presentation of the emerging picture in the light of the objectives, theoretical perspective and social relevance of the study.