CHAPTER III

REVIEW OF RELATED STUDIES

DEFINITION:

(a) Dropout

'Dropout' according to dictionary¹ means: (a) one who dropout before achieving his goal as from school or a programme of training, (b) to terminate education before completing high school, (c) person who left school or college before completing his or her education, and (d) person who opted out of personal or social commitments². It means premature withdrawal of children from school before the end of final year of the educational stage in which he is enrolled³.

Dropout is the other name of wastage although there is some slight difference in its literal meaning. It means that

¹Webster's Third New International Dictionary and Seven Language Dictionary, p.694.
the students who were enrolled in the first year or Class A of Primary Course but for some reasons or the others could not or did not pursue school education up to Class VIII makes wastage as well as dropout.

The Hartog Committee defines wastage as premature withdrawal of children from school at any stage before the completion of the primary course. Certain controversies have been raised regarding this definition although it had been accepted operationally in almost all the studies. In this connection R.C. Sharma and C.L. Sapra of the National Council of Educational Research and Training in its series of research studies states: 'The main point at issue is whether or not all pupils who drop out before passing the last grade of its stage of education be included in this definition of wastage.'

Another objection has been raised by Veda Prakasha and others on the ground that illiteracy and wastage are related to each other. He further argues that if a child leaves schooling before reaching Class IV or V he will be counted as waste. He claims for fixing the particular class from which literacy can

---


6 Sharma R.C. and Sapra C.L.: Wastage and Stagnation in Primary and Middle Schools in India, NCER and T, New Delhi, p. 11.

be counted and determined. In this connection R.V. Parulekar and D.R. Gadgil after studying the problem in two different areas— one at Baroda and the other at Poona finds Classes II and IV respectively as the determining class for literacy in human life.

Dropout under this investigation means those students who left school without completing Primary course at any stage and at any time without certificate. By dropout it does not simply confine to the period of primary course only. It can be dropout of the primary, secondary, college and even University education. Any student withdrawn without completing the prescribed course is dropout.

Moreover, if wastage and literacy are taken together as the one and the same or related to each other for any course of study, it indirectly hints a meaning for wastage of public money only and not educational knowledge. So, when a child dropout at Class VIII he is not only wasting public money but also curtailing from getting educational knowledge either by himself, family or society. It will be difficult to categorise a child who passed Class IA or IB or just after admission to Class IB as literate. For, a child can dropout at any time irrespective of literacy. However, the present investigation is not going to reveal its relation.

---

(b) **Stagnation**

Stagnation as defined by the Hartog Committee\(^8\) is the retention of a child in a class for a period of more than one academic year. So, the stagnant students are those who completed the prescribed course but only after a delayed progress. They took a longer time to complete the course than the prescribed minimum period\(^9\). A student is normally expected to complete a certain prescribed course in one academic year. But, if the child completes it by spending one, two or more extra years than the extra year or years spent by him represents a period of stagnation\(^10\). It means repeated failure in a class is stagnation. Sometimes a child drops out when he repeatedly fails in the examination. So, stagnation is also related to dropout. The Satara Study for the first time pointed out that stagnation is a greater evil than wastage.

(c) **Stayins**

Stayins means any student who passed the various examinations starting from Class A and is still in the class. In other words, it means pupils who are continuing in schools.

---


\(^9\) Kamat A.R. and Deshmukh A.G.;Wastage in College Education - Two Studies about students of the University of Poona, Gokhale Institute of Politics and Economics, p.43.

\(^10\) I.V. Bhanot: A Report on an Enquiry into the Occurrences of 'Wastage' and 'Stagnation' amongst the University Students. Maharaja Sayajirao University, Baroda, pp.2-3.
(d) **Primary Stage, Primary Level and Primary Course**

These terms are used interchangeably to mean a group of grades or classes forming one unit or stage in the educational structure such as Primary level or Primary stage or Primary course having classes from A to VIII. This structure is based on the All India nomenclature for primary stage.

(i) **Primary Schools**

Primary schools under this study means from lower primary to junior high schools. It includes Lower Primary, Junior Basic, Middle, Senior Basic, Upgraded Junior Basic and Junior High Schools.

(ii) **Grades and Classes**

Grade or Class is used as a general term designating the ten academic years as Grade or Class A, B, I, II, III, IV, V, VI, VII and VIII.

(iii) **Inspecting Officers and Staff**

Government Officials responsible for inspection and supervision of primary schools in the State means Inspector of Schools, Deputy Inspectors, Sub-Inspectors and Assistant Inspectors. In addition to these Inspecting Staff the Director of Education is the head of the office.

(e) **Wastagnation**

This term is used to mean wastage plus stagnation. Very
often the term 'Wastage' or 'Educational Wastage' is used to mean wastage and stagnation combined. Dr. D. V. Chickermane also used the term 'wastage due to circumstances (WC)' to mean wastage and 'wastage due to stagnation (Ws)' to mean stagnation. In order to avoid possible confusion as to the meaning of wastage and stagnation separately as well as in combination these terms are coined for use.

(i) **Criterion Variables**

Criterion variable is used as a general term to mean any of the factors creating diminutions, that is, transfer rates, wastage rates, stagnation rates or dropout rates. Sometimes, pass percentages are also included for conveniences.

(ii) **Judges**

The term is used to mean the respondents of the different categories such as teachers, inspecting officers, teacher-educators and block education officers. These judges rated the causes of dropout in the opinionnaire as to their importance in the 75 point scale.

(iii) **Teacher-educator**

Teacher-educator means the staff of Teacher Training Institutes including the Principal.

(iv) **Clear Wastagnation**

Extent of wastagnation is obtained by subtracting the enrolment in Class VIII from that of the enrolment in Class A nine years earlier.

---

(v) Cohort

The batch of children enrolled for the first time in Class A is cohort. True cohort refers to the children admitted for the first time in Class A in the schools of Manipur. Their career has been followed up to Class VIII starting from 1961 to 1970.

METHODS OF MEASURING THE PHENOMENA

Five methods have been conducted in India for measuring the phenomena in primary schools. Those methods are: (i) Sharp's Method, (ii) Equal Enrolment, (iii) Hartog Committee, (iv) True Cohort used in the Satara Study, Poona Study and 24 Parganas Study, and (v) Chickermane Method.

Sharp's Method

The earliest and the simplest method was found out by H. Sharp in his 'Progress of Education in India'. He assumed the number of children in grades I-V in 1911-12 as equivalent to those of 1901-02. Availability of data was the main reason for his assumption. So, data for 1901-02 was not available to him. Then he compared the number of children in age group 5-10 of 1901-02 with the number of literate persons of the same age group of 1911-12. Taking its difference the extent of wastage was estimated roughly.

For estimating 'lapse into illiteracy' Sharp compared census data with the enrolments in grades I-V. However, what was
actually estimated was wastage. So, the difference between the terms 'lapse into illiteracy' and 'wastage' was totally ignored. Again, Sharp assumed the number of children of the age group 5-10 in schools as the same as the number of pupils in the grades I-V. This assumption is discredited on the ground that although in most of the States no child less than five years of age could be admitted to grade I about 27.5 percent in grades I-V was higher age than the normal age group of 5-10 years. Third, this method did not make any allowance for the deaths which might have occurred during these years. Fourth, it could be used once in ten years since census data were collected every after ten years. Due to these shortcomings his method is not going to be employed in measuring the problem.

**Equal Enrolment Method**

Equal Enrolment Method is also one of the simplest and the most rough method for measuring the problem. In this method the enrolments in Classes I - VIII were equally distributed. Then, the enrolments in all classes were compared with that in Class I. All diminutions from one class to another represented wastage.

This method is useless for any scientific purpose. It is based on assumption. The enrolment of Class II of a given year

---

12 Estimated on the basis of figures on enrolment by ages and by grades obtained from the Statistical Unit of the Ministry of Education, Government of India, Shastri Bhavan, New Delhi.
is not the result of Class I of the same year but of the previous year. Its main factor being calculation of the problem without any given year. For instance, in 1963 in Manipur there was 21373 students in Class I. In 1964 there were 16701 students in Class II. It shows that Class I of 1963 becomes Class II in 1964. The same argument can be applied to other classes also. Apart from these defects this method can be used for comparison of the relative positions of different areas with regard to educational wastage.

Hartog Committee Method

This method compared the number of pupils in Class A with those in Class V. In other words, the number of students in Class V was subtracted from the number of students in Class A. The difference between the two was considered as wastage.

This method is almost the same as the second. It can be used mainly for its easiness and greater accuracy. However, the result obtained by this method does not classify wastage and stagnation vividly. It does not make any allowance for special circumstances like a period of rapid expansion. It states that 'a period of rapid expansion naturally results in an abnormal enlargement of Class I and as a consequence, a temporary disproportion between the number in Class I and those in higher classes'. For instance, in Manipur in 1963 the enrolment in Class I was flushed due to formal abolition of Classes A and B;

---

the enrolment being increased from 27986 in Class B in 1962 to 114883 in Class I in 1963\textsuperscript{14}. Hence, the question of rapid expansion was totally avoided. Again, the method does not make any allowance for deaths and double or early promotions. It also does not take into consideration for new admission to Grades II - V.

**Chickermane Method**

Chickermane’s method was based on the concept of 'incremental gains' in learning outcome. This concept implies that in moving from the first grade to the last grade of any stage of education, the earlier a child leaves in terms of both grade and month, the more will be the wastage due to him. A pupil who left school after passing Grade III constituted much less wastage, according to this method, as compared to the one who left in Grade I. Chickermane gave weights of 10, 20, 30 and 40 to grades I, II, III, and IV respectively. He assumed that there were ten working months in an academic year. Each completed month of the academic year entitled the child to a score of 1, 2, 3, and 4 in grades I, II, III, and IV respectively. Thus a child who left school just after passing Grade I had a score of 10 in terms of using the school and the remaining 90 was wastage due to him. Similarly, one who completed Grade I but left after two months in Grade II had a score of 14 in terms of using the school; the remaining 86 out of 100 scores was wastage due to him.

\textsuperscript{14}Source: Statistics Cell, Director of Education, Government of Manipur.
The idea of giving weights of 1, 2, 3, and 4 respectively to pupils for completion of Grades I, II, III, and IV was advocated by the Poona Study of the Research Unit of the Directorate of Education, Bombay in 1960 and the 24 Parganas Study done by P. Choudhury in 1965. According to them half the credits may be calculated for those students who failed in Grades I - IV. For instance, a pupil in a grade prepared for the final examination appeared at the examination. This pupil, according to them, did derive some educational benefit even if he failed in the examination. No credits were given to those students who absent themselves at the final examination.

Chickermane's method is discredited because of the intervention of the phenomena 'lapse into illiteracy' which means that those pupils who drops out when in Grade IV or V are not significantly different from those who drops out in Grade I or II. The wastage in terms of time, money and energy spent on the education of the former is comparatively much more than that spent on the latter.

**True Cohort Method**

The latest and the best scientific method of calculating educational wastage was to follow the cover of a group of fresh entrants and to persue them till the completion of the last class of the stage under enquiry. The number of children who left school before completing the prescribed course was thus determined. The percentage of wastage was thus calculated from the proportion of those droppedouts to the initial cohort.

This method enables to ascertain wastage and stagnation
separately. The Satara Study of D.R. Gadgil and V.N. Dandekar of 1955, the 24 Parganas Study of P. Choudhury of 1955 and the Poona Study of the Research Unit of the Directorate of Education, Bombay, of 1960 used this method for measuring the problem. However, this method deals with the past periods. No large scale forward looking longitudinal study has yet been undertaken in the country following up a cohort of future years.

The present investigation will apply true scientific cohort method with certain modifications to the True Cohort Method. The career of 54497 fresh entrants are followed for a period of ten years starting from Class A to Class VIII. Although the actual period of study is from 1963 to 1970 two base years, 1961 and 1962; and one course completion year, 1971, are taken for the purpose of finding out accurate results.

Stagnation

Stagnation can be find out by following the True Cohort Method or the Stagnation Index Formula. The first procedure of True Cohort Method gives detailed picture of the detailed cases while the latter gives an arithmetic index only. So, stagnation is measured by counting the number of failures during different years from the same cohort of pupils. The formula for computing the Stagnation Index is:

$$S.I. = 100 \left( 1 - \frac{\text{Total Optimum Years}}{\text{Actually Used Years}} \right)$$

In the formula, S.I. means Index of Stagnation, Total Optimum Years means the total number of years which will actually be required for completing the primary course without fail, that
is, ten years in this study. Actually Used Years means the total number of years actually taken by the pupils in the cohort to complete the primary course.

Applying this formula instances can be given on a batch of 1000 pupils for a period of ten years. Total Optimum year will be 10000 years since ten years are required for completing the primary course in Manipur. Out of 1000 pupils 500 took ten years while 200 pupils took eleven years, 150 pupils twelve years, 100 pupils thirteen years, and 50 pupils fourteen years to complete the primary course. Then, total 'actually used years' will be (500 x 10 + 200 x 11 + 150 x 12 + 100 x 13 + 50 x 14) years = 5000 + 2200 + 1800 + 1300 + 700 = 11000 years.

Therefore, the value of Stagnation Index, applying this 1000 batch of pupils, is:

\[
\text{Stagnation Index} = 100 \left( 1 - \frac{10000}{11000} \right) \\
= 9.09
\]

Although Stagnation Index is a useful tool for indicating the measure of stagnation its interpretation is not quite obvious. On the other hand, counting the number of detained cases out of the same cohort in each Class and to express them as percentage of the initial cohort is easily understandable procedure. When totalled for all the ten classes the result will give the total rate of stagnation of the primary course. The basic rationals in view of the objectives of this study is that when a pupil drops out or detained in a class, once or more, constitutes a case of educational wastage, wastage of efforts,
Two methods were employed for identifying the causes of dropout. Those two methods were: (a) Direct Method and (b) Indirect Method. The Direct Method was for making direct contact with the dropouts, dropouts' parents and guardians, stayins and stayins' parents and guardians. The causes which led to premature withdrawal and repeated failure was ascertained directly by this method. The NEI-HEW Project 005 used this method.

The Indirect Method was for ascertaining the causes indirectly from teachers, headmasters or headmistresses, school pandits, the inspecting staff like the Inspectors, Assistant Inspectors and Deputy Inspectors of schools. The District Education Officers, student leaders, dropouts' friends and neighbours were also included in ascertaining the causes of dropout indirectly. The Satara Study, the Punjab Study, the 24 Parganas Study, the Gargoti Study and the Madras Study used this method. The Satara and the Punjab Studies dealt either with the teachers alone or other agencies such as local community leaders and inspecting officers. The 24 Parganas, the Gargoti and the Madras Studies applied to the latter part of agencies.

In the Direct Method there is chance of colouring the causes by their own perception. So, the real cause may be missed. Again, people in rural area can hardly be expected to distinguish apparent causes and inherent causes. For instance, when a child is unwilling to attend school he withdraws himself
from attending the class and drops out from the cause. The parents in this connection, may generally mention that 'unwillingness to attend' as the cause. However, the inherent cause behind it may be 'rude treatment of the teacher'. Regarding the Indirect Method there is less elements of biasness. Therefore, the Indirect Method is better than the Direct Method, However, both the methods are not interdependent to each other. In order to ascertain accurately the causes of dropout the present study utilises both the Direct and the Indirect methods together.

METHODS OF DETERMINING THE RELATIVE IMPORTANCE OF CAUSES

The methods used for determining the 'relative importance of the causes were: (i) Frequency Distribution, (ii) Statistical Inference, (iii) Discriminant Function Analysis, (iv) Fourfold Correlation Table, and (v) Rank Correlation.

Frequency Distribution Method

This method determined the relative importance of the causes by working out the frequencies of statements of each of the causes given by the agency or agencies concerned. Opinionnaires were collected from the dropouts, dropouts' parents and guardians, stayins, staying' parents and guardians, teachers, administrators, student leaders and friends of the dropouts. Frequency of the statements given by these agencies were converted into simple frequencies which was again converted into percentage frequencies. These percentage frequencies were arranged in descending order and ranked from
the highest to the lowest frequency. The rank thus obtained by a cause showed the importance order of that cause. Most of the studies employed this method.

**Statistical Inference**

Statistical Inference Method was used to elicit the opinions of the responding agency or agencies as to the importance of the causes. The causes were put in the form of opinionnaire containing a scoring scale of suitable number of points. The opinionnaires were collected from independent variables of four features like home circumstances, financial condition of the parents and guardians towards education, involvement of children in domestic work and educational status of the family and criterion variables. The opinionnaires collected from the various agencies like teachers, inspecting officers, parents and local educationists were then combined together in terms of scores assigned to various categories of importance. The average ratings against each cause for a particular group of respondents was obtained by dividing the composite score by the number of respondents in each group. The causes were then ranked on the basis of the average-ratings which established the importance order of relative importance of the various causes as prescribed by the particular group of respondents or judges. The same procedure was used for the groups of respondents too.

**Discriminant Function Analysis**

The NIE-HEW Project 005 used this method of 'Discriminant Function Analysis' in addition to 'Opinion Poll Method' for
ascertaining its relative importance of causes. In Discriminant Function Analysis the appropriate weights were ascertained for its causes. The percentage contribution of each of the causes to the discriminant function was worked out. The causes when ranked according to the percentage contribution gave the relative importance of the causes.

Four-Fold Correlation Table

D.V. Chickermane determined the relative importance of the causes of wastage in primary education and home circumstances by means of Four Fold Correlation Tables. The distributions were arranged in dichotomies. The four features of independent variables of home circumstances were: (a) financial condition of parents, (b) guardians towards education, (c) involvement of children in domestic work, and (d) educational status of the family. Relationship between these variables were established by the significance of Phi coefficients. Phi coefficients were calculated from the correlation table. Chi squares were calculated from phi coefficients and values of Maximal Phi coefficients were also computed. Thus the relative causes of wastage between the two was established by examining the magnitude of the phi-coefficient and also by the ratio of its variance to the total variance of the Maximal phi coefficient.

Rank Correlation

The Agricultural Economics Research Centre Study ascertained the importance of two selected major causes with the
help of either 'Rank Correlation' or by simple examination of the association between a cause and effect, that is, wastage as revealed by the existence of systematic trend in the values of the two variables.

The present investigation utilizes all these methods except 'Discriminant Function Analysis' for ascertaining the relative importance of dropout. In place of 'Discriminant Function Analysis' Kendall's Concordance Coefficient' is used for ascertaining the relative importance of dropout. It is used for measuring the degree of agreement among three sets of judges of 40 ranks. These 40 ranks are measured from the number of causes given in the 75-point scale by the three judges. The judges are the inspecting staff, the teachers and the teacher educators of the teacher training institutions.

The Coefficient of Concordance can only be positive in sign and ranges from '0 to 1'. When the ranks assigned by each judge are exactly the same as those assigned by the other judges, the Coefficient of Concordance will be '1' and it will be '0' when there is maximum disagreement among the judges. The agreement among the judges is measured by the Coefficient of Concordance. This Concordance Coefficient is used for detecting and eliminating variables that are ambiguous or are of such a nature that they cannot be reliably judged.

INCIDENCE OF WASTAGE AND STAGNATION

Studies have been made on the problem of wastage and stagnation in primary education in India. Important ones are the Satara Study, the Poona Study, the Gargoti Study, the 24-Parganas
Study the 92 - School Study on all India Basis and the Sibsagar Study. Its incidence studied by each of these six studies are reviewed as follows.

**The Satara Study**

The Gokhale Institute of Politics and Economics undertook a study on this problem on a private organisation basis in the Satara District of Poona in 1945-46. It was conducted by V.M.Dandekar in consultation with D.R.Gadgil.

In the study of cohort of 10000 fresh entrants were followed using the True Cohort Method. Out of this 10000 pupils entering grade I, 6388 actually passed grade IV and 3612 left before completing the primary course. Out of 3612 dropouts 1932 left in grade I, 706 in grade II, 504 in grade III and 470 in grade IV. The total percentage of wastage and stagnation during a course of four years were 36.1 and 45.8 respectively. Its relative distribution of total wastage in the various grades were as given below:

<table>
<thead>
<tr>
<th>Number of Dropouts Basing on True Cohort Method (Cohort=10000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
</tr>
<tr>
<td>Year</td>
</tr>
<tr>
<td>Number of dropouts</td>
</tr>
<tr>
<td>Percentage of wastage</td>
</tr>
</tbody>
</table>
The Satara Study found out that: (a) stagnation is an important contributory cause leading to wastage, (b) age of children is an important factor responsible for wastage and stagnation, (c) wastage and stagnation is higher among lower caste communities and lower among higher caste communities, (d) lower income is responsible for higher wastage and stagnation, (e) occupational pattern has relationship to wastage and stagnation. Businessmen and people of salaried employments are more favourable to continuation of education of their children than those of farmers' and labourers' children, (f) Minimum size of agricultural holdings required to make possible the continuation of education of pupils upto Upper Primary level is three acres of land, (g) two or more bullocks are necessary for favourable conditions to continue their children in schools, and (h) strong and actively interested guardianship is essential for retention of pupils in schools. Apart from these findings the Satara Study has its own drawbacks. The Study collected responses from the teachers only. Hence, the study can be regarded as incomplete.

The Poona Study

The Poona Study was an exploratory study undertaken by the Research Unit of the Directorate of Education of Bombay, Maharashtra. The objective of this study was to find the extent of the problem only.

A cohort of 1000 pupils who entered in grade I in 1955 was taken for study. The career was followed for a period of four
years. Out of 1000 pupils only 211 completed the course in 1958. So, the pass percentage was 21.1 only while the wastagnation percentage was 78.9. A total of 414 pupils left school out of this cohort: 144 dropped in grade I, 119 dropped in grade II, 103 in grade III, 48 in grade IV and 375 failed in various classes for one or more years. The total percentage of wastage was 41.4 and stagnation percentage was 37.5 which included 7.8 percent absentees in various examinations.

<table>
<thead>
<tr>
<th>Years</th>
<th>1955</th>
<th>1956</th>
<th>1957</th>
<th>1958</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades</td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
</tr>
<tr>
<td>Cohort</td>
<td>1000</td>
<td>817</td>
<td>699</td>
<td>611</td>
</tr>
<tr>
<td>Number of Dropouts</td>
<td>183</td>
<td>118</td>
<td>88</td>
<td>25</td>
</tr>
</tbody>
</table>

The Study found out new concepts such as 'career-rotation of pupils', 'followed idea of educational credits', 'effective years' and 'effectiveness of school system'. It opened avenues for further research. The concept of 'Utilised School Years' was also used in this Study. The actual expectation was that all the 1000 students progressed and passed regularly. Then, the utilised school years would be 4000 years. Since, 414 dropped, the number of unutilised school years would be three for a pupil who left school after one year of primary course of four years; and two years if a student left after two years; so on and so
forth. Thus, 414 dropouts did not utilise 957 years out of 4000 years. It meant 23.9 percent unutilised school years. So, the number of utilised school years were 3,043.

The term 'effective school year' meant number of school years profitably used. A student passing grade I had utilised one effective school year. Thus, 1000 pupils utilised 2008 effective school years as against 3043 actually utilised school years. Effectiveness of school system was calculated as

\[
\text{Effective School Year} \times 100 = \text{66 per cent.}
\]

Stagnation was 34 percent of the 100 effective school system.

Educational credit in terms of incremental gains were given on (a) a credit of 1,2,3 and 4 respectively for completing grades I,II,III, and IV ; and (b) half the above credit were meant for the failed students of the various classes. No credit was given to absentees in the examination. The expected total credit for 1000 pupils would be 10000 (1000 x 1 + 1000 x 2 + 1000 x 3 + 1000 x 4). But educational credit actually earned was 4,2175 giving 42.2 percent. It revealed wastage of educational effort to the extent of 57.8 percent. However, this Study did not investigate the causes of wastage and stagnation.

The Gardoti Study

The Gardoti Study was conducted by D.V.Chickermane on thirteen villages round about Gangoti in Maharastra. Its population was less than 1000. The career of 518 children were followed for a period of four years of the primary stage. The study was conducted in order to find out the number of students
dropping out from the primary stage. It assumed that the efficiency of school system depended upon the attendance of the pupils and completion of grade IV within the prescribed period without fail. Any deviation from this expectation meant wastage and stagnation.

Credits or weights were given to grades I, II, III, and IV as 10, 20, 30, and 40 points respectively. The points assigned to a year were spread over the ten working months of a year according to a sliding scale. The points gradually increased as the pupils moved to upper classes. This distribution of points made it possible to calculate credits for a pupil who did not complete the year but left after some months of continuation. Thus, schooling efficiency was earned by his educational credit. A student earned a total credit of 100 points (10 + 20 + 30 + 40) if he regularly completes the primary stage in four years. So, his schooling efficiency was 100 which was the maximum possible score. The difference between 100 and the credit actually earned by a pupil constituted the extent of wastage. However, this Study also did not discuss the causes of wastage and stagnation.

**The 24 Parganas Study**

The 24 Parganas Study was conducted by P. Choudhury of the State Institute of Education, West Bengal. The study was conducted for ascertaining the relative frequency of incidence of various factors associated with wastage and stagnation. Total time taken by a pupil for completing the primary course was the main point of the study.
True Cohort Method was used in finding out the problem. Opinions were collected from teachers and local community leaders. The relative importance of the causes were identified through check-list of the probable causes. The calculated ranks were:

<table>
<thead>
<tr>
<th>RANKS</th>
<th>PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economic cause or parental poverty</td>
<td>33.0</td>
</tr>
<tr>
<td>2. Parental indifference to education</td>
<td>26.0</td>
</tr>
<tr>
<td>3. Irregularity of attendance</td>
<td>15.8</td>
</tr>
<tr>
<td>4. Social habits and customs</td>
<td>6.8</td>
</tr>
<tr>
<td>5. Admission of under-aged children</td>
<td>4.8</td>
</tr>
<tr>
<td>6. Ineffective teaching method and curriculum</td>
<td>4.0</td>
</tr>
<tr>
<td>7. Large size of grade I</td>
<td>2.5</td>
</tr>
<tr>
<td>8. Other causes</td>
<td>7.1</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Although the Study has its own merits it has not taken the opinions of the Inspecting Officers and the teachers. Hence, the Study can be regarded as incomplete.

The 92-School Study (on all India basis)

The Study was undertaken by R.C. Sharma and C.L. Sarpa of the NCERT, New Delhi, on the problem of 'Wastage and stagnation in Primary and Middle School in India' in 1969. A sample of 790 dropouts and 485 stayins were selected from ninety two Schools of Punjab, Rajasthan, Maharashtra and the Union territories of Himachal Pradesh and Delhi. The tools used were School Information
Blanks and Pupil Information Sheets for collecting data about schools, dropouts and stayins. Interviews were conducted with the dropouts, parents and guardians of the dropouts, stayins and parents and guardians of stayins. The data were statistically analysed and interpreted.

The study revealed eighteen causes of wastage and stagnation in Primary and Middle Schools in the ninetytwo sample schools of India. It studied the problem in depth and pinpointed the facts. The relative importance of the causes of wastagnation was ascertained by three sets of judges. It analysed the causes too. The study will be more beneficial and comprehensive if can cover more states and territories, particularly of the North-Eastern regions of India.

The Sibsagar Study

The Sibsagar Investigation was done by R.C. Das, into the problem of 'An Investigation into the Problem of Wastage and Stagnation at the Primary Level of Education in the District of Sibsagar, Assam' in 1970. The main objectives of the study were three. First, to ascertain the extent of the problem in the district and its variations under a variety of situations. Second, to identify the causes and their relative importance. Third, to suggest appropriate remedial measures.

The study was conducted on 14,399 fresh entrants in class A, 1963. Their career were followed for five years for classes from A to III for the calculation of wastage and stagnation. The pattern of class structure was A, B, I, II and III. The total number
of dropouts and stagnants were calculated both classwise and sexwise and expressed as percentage of the total strength of the pupils. The causes of wastage and stagnation were determined indirectly by using questionnaire schedules for teachers, inspecting officers and teacher-educators. A five point scale, opinionnaire, a performa and information sheet for stagnation index were used to collect all information. These tools are used for ascertaining the relative importance of the causes of wastage and stagnation. Concordance test was used for ranking the causes by three judges.

The investigation found 14.24 percent as the incidence of wastage and 62.03 percent as the incidence of stagnation in the district. In its incidence of wastage and stagnation the southern region is higher than the northern region of the district. The rate of stagnation was 77.91 percent for rural area and 63.22 percent for urban area. The difference of the two rates was statistically significant. In classwise breakpp, highest incident of stagnation was 34.48 percent in Class A and lowest was 6.24 percent in Class III. The stagnation indices in scheduled tribe community area were 86.54 percent for boys and 89.74 percent for girls. In non-scheduled tribe areas 74.0 percent was for boys and 75.18 percent for girls.

Poverty and economic backwardness claimed first rank among forty causes of wastage and stagnation at the primary stage. Backward Society and non-stimulating social environment, illiterate parents and guardians, untrained teachers claimed the fifth and fourteenth and thirty second ranks respectively. In short, the investigation found socio-economic causes were more responsible
for wastage and educational causes were more responsible for stagnation.

The investigator studies the problem of wastage and stagnation in the district very comprehensively. However, the investigator utilises only the Indirect Method. It will be more comprehensive if the investigator utilises both the Direct and Indirect Method for identifying the causes of wastage and stagnation.

**Incidence of the Six Studies**

The 92-School Study has not found out the rate of wastage and stagnation separately. Hence, a comparative view of the incidence of wastage and stagnation of the five studies on the problem is given in Table 3.1.

<table>
<thead>
<tr>
<th>SL.No.</th>
<th>Name of the Study</th>
<th>Wastage P.C</th>
<th>Stagnation P.C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The Satara Study</td>
<td>36.1</td>
<td>45.8</td>
</tr>
<tr>
<td>2.</td>
<td>The Poona Study</td>
<td>41.4</td>
<td>37.5</td>
</tr>
<tr>
<td>3.</td>
<td>The Gargoti Study</td>
<td>28.0</td>
<td>40.0</td>
</tr>
<tr>
<td>4.</td>
<td>The 24-Parganas Study</td>
<td>33.1</td>
<td>39.4</td>
</tr>
<tr>
<td>5.</td>
<td>The Sibsagar Study</td>
<td>14.24</td>
<td>62.03</td>
</tr>
</tbody>
</table>
The incidence of wastage is the highest in the Poona Study. The Satara Study is the second which is followed by the 24-Pargana and the Gargoti Study. The percentage is the lowest in the Sibsagar Study.

Stagnation is highest in the Sibsagar Study. The Satara Study is the second and the Gargoti Study is the third which is followed by the 24-Pargana Study and the Poona Study respectively. There is no significant difference between the stagnation figures of the Gargoti and the 24-Pargana Studies. The incidence of stagnation is higher than wastage in all studies except in the Poona Study. Thus, it is evident that stagnation is a greater evil than wastage.

Apart from these four studies the Provincial Board of Bombay, the Bengal Municipal Corporation, the Madras Study, the Punjab Study, the Agricultural Economics Research Centre and the NIE-HEW Project 005 also studied the problem of wastage and stagnation. Each of these studies were reviewed as under.

The Provincial Board of Bombay Study was conducted by J.P. Naik on the problem 'Report on Stagnation and Wastage in Primary Schools' of the Bombay Provincial Board of Primary Education' in 1941. The Primary Education Department of the Bombay Municipal Corporation undertook a study on 'The Incidence of Dropouts in Primary Schools in Ward No. 31' for six months between September 1955 and February 1956 and the Factors Responsible for the same in 1956. This Department of this Corporation again undertook a study on
'Study of the Incidence of Wastage and Stagnation and the Effectiveness of our Education Efforts' in 1967. The Madras Study was undertaken by the Research Bureau of Teachers' College, Madras, in 1962 on the problem 'A Study of Wastage and Stagnation in Primary Schools in Madras'. The Punjab Study was initiated by Veda Prakasha in the Districts of Rohtak, Hisar, Karnal and Gurgaon of Punjab in 1965. The next study was undertaken by the Agricultural Economics Research Centre under the University of Delhi in 1968 on the problem 'Primary Education in Rural India Participation and Wastage'. The last study was undertaken by the Department of Educational Administration under the National Institute of Education of the National Council of Educational Research and Training, New Delhi, with the help of the Department of Health, Education and Welfare of the United States in 1967 on the problem. In addition to these studies the Education Commission of 1964 calculated wastage and stagnation for the period from 1911 to 1965. Through Equal Enrolment Method by using the quinquennial enrolment record for the period.

None of the above studies dealt with the problem in all its aspect. Most of them are theoretically biased. Although the NIE-HEW Project 005 and the AERC Study put forward some advanced suggestions for tackling the problem which is of general nature none of these studies put forward any specific plan for implementation.

CAUSES OF WASTAGE AND STAGNATION

The causes of wastage and stagnation as found out by these Studies are categorized as: (a) Socio-economic, (b) Educational,
and (c) Miscellaneous.

Socio-economic

The causes under socio-economic categories were: (i) economic backwardness of the family, (ii) excessive involvement of children in domestic work, (iii) educational status of the family, (iv) occupation, (v) parental opposition and indifference and (vi) early marriage or betrothal.

(i) Economic Backwardness of the Family

Economic backwardness of the family was found as the most important cause of wastage and stagnation. It was found on Opinion Surveys. This specific cause was interpreted in two ways. First, education costs directly something to the parents in the form of fees, books, stationery, school uniform, etcetera, Second, not frequently parents in India employ children in some form of labour as soon as they were old enough to be employed. Sometimes the employment was outside the family. But in a majority of cases, the employment was in the family itself. Family employments were in the form of cattle raring, cattle tending, and taking care of younger children. It helped the parents to go out for another work.

Chickermane found out the relationship between the income of parents and the phenomena of wastage and stagnation as insignificant. He showed through statistical analysis that even children of rich families left school before completing the fourth grade of primary course. These children took longer period
for completing the primary course while children of poor families
did not discontinue only for reasons of poverty. So, according
to his findings poverty was not a variable highly correlated
with the increasing rate of dropout.

(ii) **Excessive Involvement of Children in Domestic Work**

The second finding was the excessive involvement of
children in domestic work. It practically left the children no
time to study at home. So, children were bound to dropout from
educational career.

(iii) **Educational Status of the Family**

Low educational status of the family was the third
socio-economic cause of students' dropout. The Studies found
out the influence of low educational status on the phenomena of
wastage and stagnation as no less important. The parents'
perception of the value of education depended to a large extent
upon their own educational status. D.V.Chickermane found out that
the presence of a large number of illiterate members in the
family positively related to the phenomena of wastage.

(iv) **Occupation**

The four studies of Satara, Poona, Gargoti and the 24
Parganas showed that people engaged in business and salaried
persons favoured continuation of childrens' education more than
those engaged in agriculture, casual labour, artisanship and
non-salaried persons.
(v) **Parental Opposition and Indifference**

Parental opposition to further education of their wards was another socio-economic cause of children's dropout. Social taboos and their greater usefulness in domestic work for girls were the main reasons for opposition. And, for boys it was generally due to their economic usefulness to the family. The factor for parential indifference were due to cultural deprivation, poverty and illiteracy of parents.

(vi) **Early Marriage or Betrothal**

Early marriage or betrothal was a significant cause of wastage for the girls to dropout. The report of the Provincial Board of Primary Education, Bombay stated that the Sharada Act had prevented early marriage to a large extent but it did not prevent early betrothal.

Educational

**Stagnation as found out by these Studies was a major factor related to wastage.** The median period spent in a class by dropouts was more than the period spent by the stayins. In this connection the Hartog Committee Report stated that 'the longer a child remains in one class the more discouraged and neglected he feels while his continued presence at school not only confers no benefit on himself, but also affects adversely the teaching of the other pupils.

Stagnation was due to a variety of factors. Among the other factors important ones were: poor quality of teachers,
indifferent teaching, defective system of examinations, lack of earnestness on the part of the students or lack of proper environment at home, paucity or non-availability of text books.

Miscellaneous

Under miscellaneous causes the Studies found out the following causes:

(i) Irregular Attendance: One of the most important factors contributing to stagnation and wastage was irregular in attendance. Its causes for irregularity required exploration at the moment of seeing its symptoms.

(ii) Illness of the Pupils: In India many children were under nourished. Its main cause being economic backwardness. Due to under nourishment many diseases were contracted. Thus, illness of the pupils affected their achievement in studies. Ultimately it leads to stagnation and wastage.

(iii) Death and Illness of the Parents: Death or even continuous illness of either one of the parents or even both sometimes led the child to dropout from educational career. They were deprived of parental affection when either of the two or both died. More responsibility were sometimes shouldered on the child.

(iv) Heterogeneity in Age Composition: D.R. Gadgil and V.M. Dandekar revealed that students older than the median age of a class were more likely to dropout because of two reasons. First, they were economically useful to the family. Second, children
belonging to lower socio-economic groups were higher in age at the time of admission to school than the normal age-group children. These children found it difficult to adjust to their peers who were very much younger in age than theirs.

Apart from these causes given by these four Studies there may be other causes too. The causes may be general in nature but will be different according to the social structure and economic position of the State. There may be special causes in addition to these causes which lead the students to dropout. Thus, whether the State, Manipur, has different causes for students to dropout from educational career will be verified and tested in Chapter VI.